Draft Modification Report
Application of SO Commodity Charges to all NTS Loads
Modification Reference Number 0532
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

1.1   The Original Proposal

Modification Proposal 0532 was raised following Ofgem's decision not to veto Transco's Pricing Consultation Proposal 70 (PC70).

 The stated objectives of PC70 were that:

- the NTS Standard Commodity Charge be replaced by a System Operator (SO) Commodity Charge;

- the SO Commodity Charge be based upon target SO revenue; and

- the SO Commodity Charge should apply to all gas transported through the NTS, irrespective of the type of end load.

A particular change was that the SO Commodity Charge would be applied to gas off-taken at Storage Facilities. Transco also welcomed views on whether it was appropriate to continue with the optional commodity charge in its present form; whether it should now be reconstituted in a different form or removed altogether; and whether the SO Commodity Charge should be distance-related rather than a standard charge. Whilst a range of views were expressed on the Pricing Proposal and some comments were received on the distance-related issue, Ofgem decided not to veto PC70 and expressed its own views in an accompanying paper. One view expressed by Ofgem was on the aspect of splitting the SO Commodity Charge revenue between exit and entry. Ofgem reached the conclusion that whilst this would be desirable, systems implications would prevent its implementation prior to October 2002.

This Modification Proposal therefore proposes that the SO Commodity Charge be levied on the same basis with respect to all sites. This Modification Proposal originally suggested that the SO Commodity rate be applied to User Daily Quantity Outputs (UDQOs). Providing no User had made an entry nomination (ie associated with storage withdrawal nomination) on the same day, the sum of UDQOs would equal the physical quantity of gas off-taken at the storage site. It was believed that even if there were entry nomination(s) in respect of the storage facility's entry point, applying the SO Commodity Charge would still better achieve the relevant objectives.

1.2   Workstream Development - The Four Alternatives

Following development of the original Proposal by the Energy & Capacity Workstream, views are invited on the following four alternative principles for applying the SO

Commodity Charge, which Workstream members developed to be consistent with the objectives of PC70.

To demonstrate the differences between these four alternatives the same flow example and UDQOs and UDQIs have been used. For the first half of the Gas Flow Day the Storage Facility was assumed to be in injection mode and for the second half, in withdrawal mode.

Flows in/out of Storage Facility:

06.00 - 18.00   300 (Injection)

18.00 - 06.00   150 (Withdrawal)

Net flow: 150 (Injection)

Alternative 1: Allocating the Commodity Charge on the basis of UDQOs without any adjustment.

Calculations: General

Step 1

Apply to the UDQO of each User "u" the SO Commodity rate (SOCR)
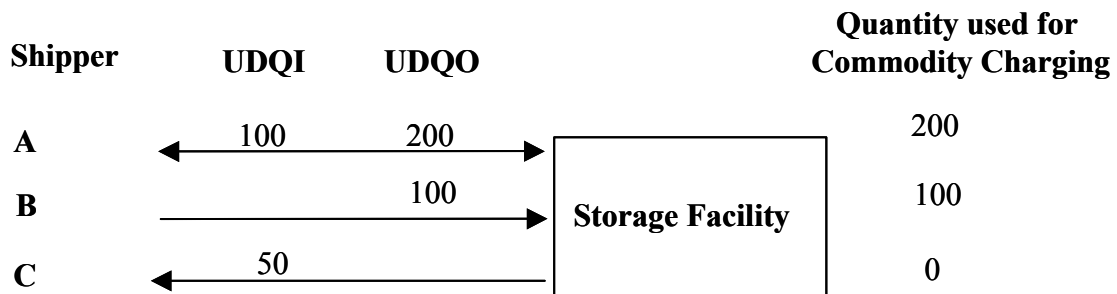
$SOCC_u = SOCR * UDQO_u$

Step 2

Total SO Commodity Charge income (SOInc) is therefore the sum of each Users' SOCC

$SOInc = \Sigma SOCC_u$

For the same value of SOCR, this alternative would be expected to yield the most SO Commodity Charge revenue. In order to retain the principle of this revenue meeting a defined target level, the value of SOCR would be set at a slightly lower rate during the following year. This would ensure that all four alternatives yielded the same revenue.

Calculations using the formulae defined above:

Shipper	UDQI	UDQO		Quantity used for Commodity Charging
A	100	200	Storage Facility	200
B		100		100
C	50			0

Step 1

Shipper

A $SOCC_A = SOCR * 200$

B $SOCC_B = SOCR * 100$

C $SOCC_c = SOCR * 0$

Step 2

$SOInc = SOCR * (200 + 100 + 0) = SOCR * 300$

The advantages, disadvantages and other features identified by the Workstream were as follows:

Advantages

- Simple

- Consistent with Energy Balancing Cash-Out

- Consistent with treatment of Interconnectors

Disadvantages

- Not reflective of actual flows into/out of storage

- May discourage use of storage facilities due to increased costs for storage users

- Discriminatory - storage users would subsidise non-storage users

Other Features

- Redistributive effect on charges for following SO charge period(s)

Alternative 2: As Alternative 1, but a rebate would be paid to Users who were withdrawing gas from storage on that Gas Flow date.

Calculations: General

Step 1

Apply to the UDQO of each User "u" the SO Commodity rate (SOCR)

$SOCC_u = SOCR * UDQO_u$

Step 2

Determine the rebate applying to each User (SO rebate) by applying the SOCR to the UDQI
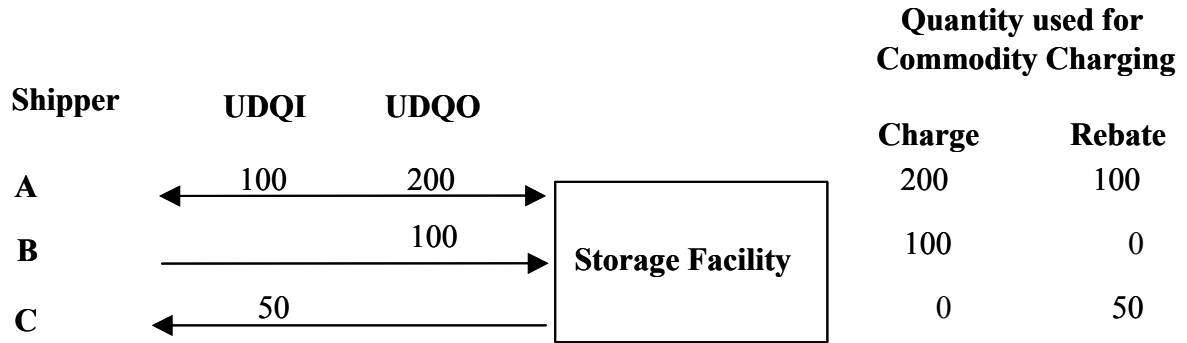
$SOrebate_u = SOCR * UDQI_u$

Step 3

SOInc is, in this case, the sum of each User's SOCC calculated in Step 1, minus the sum of each User's SO rebate calculated in Step 2

$SOInc = \Sigma SOCC_u - \Sigma SOrebate_u$

Calculations using the formulae defined above:

				Quantity used for Commodity Charging	
Shipper	**UDQI**	**UDQO**		**Charge**	**Rebate**
A	100	200		200	100
B		100	**Storage Facility**	100	0
C	50			0	50

Step 1

Shipper

A $\quad$ $SOCC_A = SOCR *200$

B $\quad$ $SOCC_B = SOCR * 100$

C $\quad$ $SOCC_C = SOCR * 0$

Step 2

A $\quad$ $SOrebate_A = SOCR *100$

B $\quad$ $SOrebate_B = SOCR *0$

C $\quad$ $SOrebate_C = SOCR *50$

Step 3

$SOInc = SOCR * (200 + 100 + 0) - SOCR * (100+0+50) = SOCR *150$

The advantages, disadvantages and other features identified by the Workstream were as follows:

Advantages

- Reflects actual flows

Disadvantages

- Encourages gas counter flows (the view of some Workstream participants only)
- Uncertainty about costs as a result of within day variation of nominations
- Individual Shippers not charged in proportion to their physical flow
- Inconsistent with the treatment of Interconnectors
- Discriminatory - storage users withdrawing on a Gas Flow Day would be subsidised by those who were injecting on the same Gas Flow Day

Other Features

- Payment of rebates is a Transportation Charging Methodology issue that would require further pricing consultation

Alternative 3: Users injecting gas into storage on that Gas Flow Day would be charged pro-rata in accordance with net physical flow into the Facility.

The following alternative was developed during two Workstream meetings: a three-step calculation process that would determine the net physical flow, and which would be allocated to Shippers who, in net terms, were injecting on that Gas Flow Day:

Calculations: General

Step 1

Determine the net quantity injected into storage (NQINJ) on that gas flow day from the quantity injected (QINJ) and quantity withdrawn (QWITD) (where there is a net withdrawal, set NQINJ to zero).

$$NQINJ = Max((QINJ - QWITD),0)$$

Step 2

Determine for each User, the UNQINJ from its UDQO and UDQI. (If a User's UDQI exceeds its UDQO this should be set to zero)

$$UNQINJ_u = Max((UDQO_u - UDQI_u),0)$$

Step 3

Calculate the SOCC for each User by applying the product of the SOCR and the net quantity injected to the share that User holds to all "n" Users allocated a positive UNQINJ on that gas flow day at that storage facility.
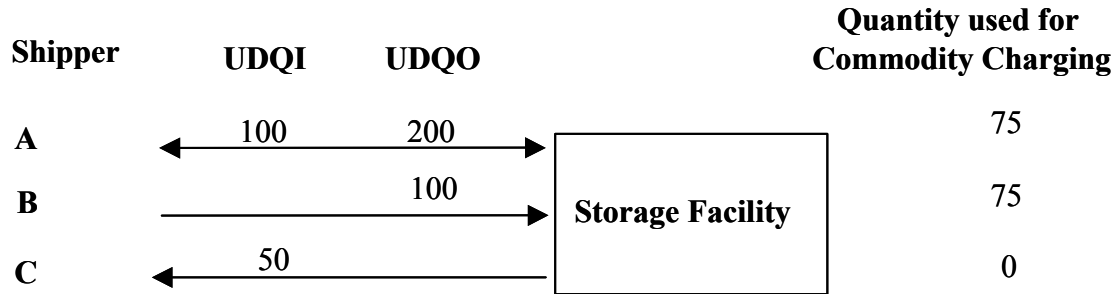
$$SOCC_u = SOCR * NQINJ * \frac{UNQINJ_u}{\sum_{i=1}^{n} UNQINJ_i}$$

Step 4

The SOInc is the sum of each User's SOCC

$$SOInc = \Sigma SOCC_u$$

Calculations using the formulae defined above:

Shipper	UDQI	UDQO		Quantity used for Commodity Charging
A	100	200	Storage Facility	75
B		100		75
C	50			0

Step 1

NQINJ = Max(300 - 150, 0) = 150

Step 2

Shipper

A $UNQINJ_A = Max((200 - 100, 0) = 100$

B $UNQINJ_B = Max((100 - 0, 0) = 100$

C $UNQINJ_C = Max((0 - 50, 0) = 0$

$\Sigma UNQINJ = 100 + 100 + 0 = 200$

Step 3

Shipper

A $SOCC_A = SO\ Charge * 150 * 100/200 = 75$

B $SOCC_B = SO\ Charge * 150 * 00/200 = 75$

C $SOCC_C = SO\ Charge * 0 * 100/200 = 0$

Step 4

*SOInc = SOCR * (75 + 75 + 0) = SOCR * 150*

Advantages

- Reflective of actual flows

Disadvantages

- Uncertainty about costs as a result of within day variation of nominations
- Inconsistent with treatment of Interconnectors
- Discriminatory - storage users injecting on a Gas Flow Day would be subsidised by those who were withdrawing on the same Gas Flow Day.

Alternative 4: The Storage Operator would notify Transco of the allocation for each Gas Flow Day which Transco would accept, providing the sum of these equalled the net flow into the storage facility.

Calculations: General

This would be determined by arrangements agreed between the Storage Operator and its customers. Transco would conduct the following check calculations:

Step 1

Apply to each User's quantity allocated by the Storage Operator (QAlloc) the SOCR

$SOCC = QAlloc_u * SOCR$

Step 2

Determine the NQINJ from the QINJ and QWITD - where there is a net withdrawal, set NQINJ to zero.
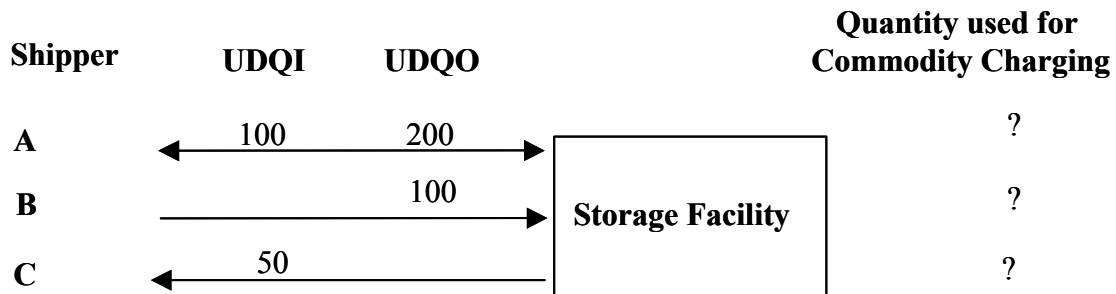
$NQINJ = Max((QINJ - QWITD), 0)$

Step 3

Check that NQINJ equals the sum of User's QAlloc

$If (CNQINJ = \Sigma QAlloc, True, False)$

The Storage Operator would be notified if this was not the case.

Step 4

$SOInc = SOCR(200 + 100 + 0) = SOCR * 300$

Shipper	UDQI	UDQO		Quantity used for Commodity Charging
A	100	200		?
B		100	Storage Facility	?
C	50			?

As the allocated quantities are unknown, calculations are not provided for this alternative.

The advantages, disadvantages and other features identified by the Workstream were as follows:

Advantages

- Responsibility vested in those using the System for storage injections/withdrawals
- Would facilitate the development of innovative services by Storage Operators

Disadvantages

- Lack of transparency
- Inconsistent with treatment of Interconnectors

Other Features

An alternative approach would be to charge the Storage Operator and allow for recovery in storage charges. This would, however, only be possible under present Network Code rules if the Storage Operator was a licensed Shipper.

1.3   Workstream Conclusions

- After evaluating all four Alternatives the Workstream concluded that Alternative 3 was preferable. It is therefore this alternative that is used as a basis for the legal text detailed in Section 17 of this Report.

- The Workstream identified that for a number of alternatives inconsistency may exist between the treatment of Interconnectors and storage facilities. Respondents may wish to address this issue.

- It was also pointed out that the optional commodity charge should apply to storage injections and withdrawals and this was part of the agreed conclusion to PC70. Transco does not believe that an amendment is required to the Network Code in order to achieve this element of consistency between Storage Connection Points and other NTS Exit Points.

- Transco agreed to draw attention to Modification Proposals 0545: "Application of SO Commodity Charges to Storage Facilities" and 0547: "Reconciled SO Commodity Charges at Storage Facilities" that propose two further alternative methods of allocating the SO Commodity Charge to gas leaving the System at Storage Facilities. To assist the process, Transco is simultaneously issuing all three draft Modification Reports for consultation.

- Transco also agreed to request that respondents consider any implications arising from Transco's Pricing Consultation 73 (PC73). This proposes that the SO Commodity Charge be applied to both entry and exit points.

2.   Transco's Opinion

Transco does not favour Alternative 2 as it would not appear to confer any advantages over and above the other alternatives and agrees that a Transportation Charging Methodology change would probably be required to support its implementation. Whilst noting the Workstream's preference for Alternative 3, Transco invites representations on all alternatives. From the standpoint of cost reflectivity, Transco favours charging based upon daily quantities rather than net flows delivered over a longer period and notes that all four alternatives embody this principle.

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

The benefits of removing the distinction between commodity charging at storage sites and other exit points have been discussed in PC70 and the subsequent representations and report. Removing the distinction would institute a common charge rate that would better reflect the

costs incurred by Transco in transporting gas to NTS exit points. In general, these costs are independent of the nature of the site concerned. Transco believes that this is consistent with facilitating the achievement of the efficient and economic operation by Transco of its pipeline system.

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

a) implications for the operation of the System:

Transco has not identified any implications for the operation of the System.

b) development and capital cost and operating cost implications:

Transco would incur costs in amending its UK-Link System. The extent of these costs has not been identified at this stage. It has, however, been identified that Alternative 3 would require more detailed systems development than Alternatives 1 and 4.

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:

Transco does not propose any specific cost recovery mechanism.

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

With the exception of Alternative 2, Transco is not aware of any consequences this Proposal would have on price regulation. Alternative 2 could only be implemented if a change to the Transportation Methodology was implemented.

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**

Transco does not anticipate that there would be any consequences on the level of contractual risk under the Network Code, as a result of implementation of this Modification Proposal.

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

Transco has identified that systems development would be required for both Users and Transco.

7. **The implications of implementing the Modification Proposal for Users**

It is likely that Users would need to alter their systems and processes to accommodate implementation of this Modification Proposal.

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

   Transco has identified that the introduction of additional costs may have implications for the value placed on storage services by Storage Users.

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**

   Transco does not anticipate any consequences on the legislative and regulatory obligations and contractual relationships of each User and non-Network party of implementing the Modification Proposal.

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

    The advantages and disadvantages of each alternative are detailed in Part 1.2 of this report.

    To summarise:

    Advantages:

    - Removal of potential discrimination between storage users and non-storage users.

    - Consistency with PC70 decision.

    Disadvantages:

    - None of the alternatives acknowledge the benefit that Storage Services provide to the System.

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

    Transco now seeks representations to this Modification Proposal.

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 Transco 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 Standard Condition 4(5) or the statement furnished by Transco under Standard Condition 4(1) of the Licence**

    +To enable the implementation of SO Commodity Charges to all NTS Loads from 2002, implementation of a Modification Proposal is required.

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

Systems development work would be required to enable implementation of this Modification Proposal.

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

For Alternatives 2 and 3, Transco estimate that a period of 4 months, following receipt of Ofgem's direction to implement, would be required to implement information systems change. A shorter period of time would be required for Alternatives 1 and 4.

16. Recommendation concerning the implementation of the Modification Proposal

Transco recommends implementation of this Modification Proposal.

17. Text

SECTION B: SYSTEM USE AND CAPACITY

Amend paragraph 3.5.3 to read as follows:

" ….

(1)   except where paragraph (2) applies, the amount of its….;

(2)   where a NTS Storage Facility is connected to the System at the NTS Connected System Exit Point, an amount equal to:

$$(NQO \ * \ UNQO \ / \ NQO) \ * \ CR$$

where, in respect of the NTS Connected System Exit Point and in respect of a User whose UDQO's exceed its UDQI's for the Day:

NQO   is the amount by which the aggregate sum of all Users UDQO's exceeds the aggregate sum of all Users UDQI's for the Day;

UNQO is the amount by which the User's UDQO exceeds the User's UDQI for the Day; and

CR   is the Applicable Commodity Rate."

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: