

**Modification Report**  
**Bi-Directional Connection Point Overrun Charge Calculation**  
**Modification Reference Number 0164**  
**Version 1.0**

This Modification Report is made pursuant to Rule 9.3.1 of the Modification Rules and follows the format required under Rule 9.4.

## **1 The Modification Proposal**

### **Summary**

Bi-directional System Connection Points are currently configured on UK Link systems such that physical utilisation is not equivalent to the volume of gas used for capacity calculations. This modification seeks to address the disparity between the treatment of uni-directional points and bi-directional points.

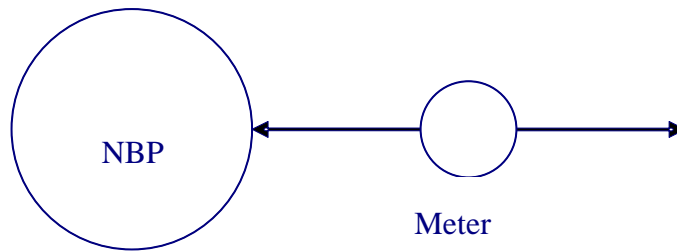
### **Purpose**

To stop Users of bi-directional points suffering capacity overrun charges when they have not exceeded their capacity physically. To prevent users from being unduly influenced by unintended charges and enable them to ship gas in a more economic manner.

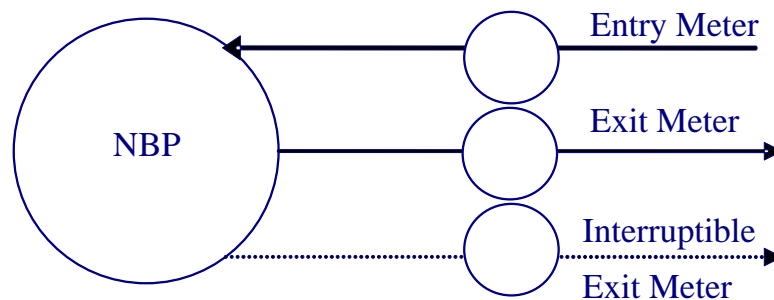
### **History and Description of Existing Problem and Workaround**

When AT Link was originally developed it was discovered at a late stage that it was incapable of handling bi-directional nominations and meters without significant modification. The Transco Storage team developed a work around which could be implemented quickly and enable AT Link to be implemented on time and without significant extra cost. The work around required Bi-directional sites to be represented by two sets of meters and nominations on UK link (now Gemini), one Exit and one Entry. Where the off-take is also interruptible then an interruptible Exit meter is also included. At that time of AT Link development the capacity regime was very different, Transco was the operator of all bi-directional points (storage sites), only Transco Storage was exposed to charges and any charges were paid directly to Transco without Users receiving a portion through a smear. This means that System Users were not exposed to the overruns associated with these points and any charges caused were kept within Transco businesses. The current configuration of meter points is represented in the following diagrams:

The physical connection point is represented as follows, where the meter can measure in both directions or is turned around to the prevailing direction of flow:



In UK Link the connection point is represented as follows, all meters require separate nominations, capacity and allocations:



For the following explanation we will assume that there is only a single input and output meter for simplicity.

The UNC (and UK Link) requires that the sum of allocations at a meter point must equal the meter reading. This means that where a User requires an allocation opposite to the net flow direction of a bi-directional point then no physical meter reading can exist for UK Link to allocate against. The UK – Link work-around uses dummy (or virtual) meter readings to give an allocation, it is explained in the following example:

Where the net flow (and physical meter reading) through the point is entry and a User requires an exit allocation then UK Link requires a dummy exit meter reading to be submitted to the allocations process to enable a valid allocation. To ensure a proper gas balance on the NBP then the entry meter reading must also be increased by the same amount. This results in the entry meter reading and allocations being higher than the actual physical flow. UK Link uses the allocated flows to calculate the amount of capacity overrun and in this example will consider the additional dummy flow against capacity bookings and could result in an overrun charge. This means that capacity is required and Overrun can be incurred, even when there is no physical flow.

This volume involved is exacerbated significantly where flow varies for operational reasons, is subject to TFA, interruption or emergency action. These types of action can result in one or more Users being forced into paying Entry Capacity overrun when no gas enters the system. The only recourse currently available is to purchase long term capacity or obtain more within day capacity

from NGG.

Until Winter 06/07 this situation has been tenable because capacity costs at bi-directional sites have been low and within day capacity has been freely available. Changing supply patterns now mean that entry capacity at a number of bi-directional sites is more highly utilised, much more expensive and less freely available. NGG have been much more reluctant to release within day capacity for fear of additional input flows. The changes to the capacity mechanism since the introduction of AT Link when combined with this work-around could now cause some Users to be exposed to business critical multi-million pound overrun charges.

### **Detailed Description of Proposed Changes:**

Ideally we would like the treatment of bi-directional meters to be fundamentally changed to allow logical meters to be combined into single points with bi-directional nominations and allocations. Such a change would be complicated and extensive and we suspect that NGG would be unable to implement such a change within a reasonable time. The following proposal therefore provides a patch to mitigate the problem and avoid large changes to UK Link.

We propose that the calculation mechanism for entry and exit overrun charges is changed so that charges are not levied on gas which has not physically flowed.

We propose that the following calculation steps will be used to generate overrun volumes:

1. For each user at a connection point the overrun amount in the direction of net flow is calculated as currently. (User Overrun Amount)
2. The overrun amounts for each user are summed. (Total overrun amount).
3. The Net Overrun Amount is calculated by subtracting the gas allocated in the opposite direction from the Total Overrun Amount.
4. If the Net Overrun Amount is positive then each overrunning User is charged a portion of the Net Overrun Amount in proportion to his User Overrun Amount at that point.

We welcome the advice of NGT on how this could be most effectively implemented.

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

*Standard Special Condition A11.1 (a): the efficient and economic operation of the pipe-line system to which this licence relates;*

Some respondents believed that implementation would ensure that maximum capacity would be available at ASEPs where a bi-directional point is connected. This would remove the current artificial constraint and thus promote system operation in accordance with this objective.

However, NGNTS believed that implementation would lead to higher constraint management costs and inefficient balancing actions due to NGNTS

basing its investment on less accurate information from the capacity booking process. NGNTS also pointed out, for example, that within day physical reversal of flows at bi-directional points might lead to lack of alignment between energy balancing and capacity booking costs if the User offtaking gas from the System was not the same as the User injecting gas.

***Standard Special Condition A11.1 (c): so far as is consistent with subparagraphs (a) and (b), the efficient discharge of the licensee's obligations under this licence;***

Users of bi-directional sites are currently incentivised to purchase more entry and exit capacity than is physically needed. This causes capacity shortages, artificially high capacity prices, and results in distorted system investment signals. Implementation would remove this incentive.

However NGNTS believed that implementation might reduce the long term bookings of Users and so reduce the investment signals on the basis of which, under the GT licence, transmission capability is built.

***Standard Special Condition A11.1 (d): so far as is consistent with subparagraphs (a) to (c) the securing of effective competition:***

***(i) between relevant shippers;...***

A User can currently be charged for input or output overruns even though that User has not performed a physical overrun or had an effect on the Transmission System. This causes the capacity mechanism to disincentivise Users from flowing economic sources of gas. Implementation would enable Users to optimise gas portfolios more economically and thus facilitate the achievement of this objective.

Implementation would stop undue cross subsidies through the capacity mechanisms from bi-directional connected point Users to uni-directional Entry Point Users and Exit Point Users and thus facilitate the achievement of this objective.

A User can currently be exposed to overrun charges and cross subsidise other Users when he has acted responsibly and had no detrimental effect on the system. Some Users could be exposed to overrun costs so large that they could impact the viability of their businesses. However, some respondents believed that implementation would be discriminatory as it would favour Users associated with a bi-directional point.

Some respondents believed that implementation might distort competition by allowing one User to benefit from another User's nominations in the opposite direction. It was pointed out that a group of Users could aggregate their requirements and that this would be to the detriment of the achievement of this objective.

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

The risk to storage and interconnector Users would be reduced, leading to longer term investment and business certainty. Implementation would also

reduce the likelihood of a bi-directional point being artificially constrained.

No implications on industry fragmentation have been identified.

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

**a) Implications for operation of the System:**

There may be benefits to the operation of the System by allowing the entry capacity mechanism to operate with less distortion and provide NGNTS with more accurate forecasts of system utilisation.

However, NGNTS believed that implementation, by weakening investment signals, might reduce the accuracy of system utilisation forecasts which would be detrimental to the operation of the System.

**b) Development and capital cost and operating cost implications:**

Implementation would remove any current incentive on Users to book more entry and exit capacity than physically required. This might reduce the capital investment made on the System.

However, RWE believed that the current overrun principles were designed to ensure the capacity required by the User was booked and implementation would not affect this: the User would not take the risk of booking less capacity than required.

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

No specific proposal is made in respect of recovery of costs associated with implementation.

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

No such consequences have been identified.

**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 consequence has been identified.

**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**

No such indication has been provided. The deadline for the February 2008 UK Link release has passed, so if a Class 2 UK Link Modification were required, this would be scheduled for the June 2008 release, unless the UK Link

Committee agreed otherwise.

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

*Administrative and operational implications (including impact upon manual processes and procedures)*

Users that check or reconcile entry capacity overrun charges may choose to change entry capacity overrun calculations in their processes or systems.

*Development and capital cost and operating cost implications*

Any such implications are expected to be minor.

*Consequence for the level of contractual risk of Users*

Implementation should reduce the risk currently faced by Users at bi-directional point through the overrun mechanism. However RWE believed that Users in general would not know the nominations of others at that point and therefore this benefit would only apply to the Storage Operator.

Some respondents expressed the opposite view: risks for Users would increase as liability for charges would become more dependent on the actions of others at that bi-directional point.

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

NGNTS believed that the Proposal was unclear in its application to interconnectors and suggested that there might be unintended consequences on the Downstream Capacity Holder processes at Interconnector UK.

Any reductions in Users' costs, for example through increased availability of gas on the day, would be expected to be reflected in lower prices paid by Consumers.

**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 have been identified.

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

**Advantages**

- Reduces risk associated with overruns for Users at bi-directional Connection Points who nominate flows in both directions on the same day.

- Potentially reduces the scale of unnecessary capacity booking at bi-directional Connection Points.
- By removing a current artificial constraint, potentially improves the GB security of supply position.

### **Disadvantages**

- Does not address any underlying flaw in UK Link.
- May reduce the current incentive on Users not to overrun.
- May reduce the accuracy of investment signals resulting from capacity booking.

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

Representations were received from the following:

British Gas Trading	(BGT)	In support
Centrica Storage	(CSL)	In support
EDF Energy	(EDFE)	In support
E.ON UK	(E.ON)	In support
National Grid Distribution	(NGD)	Not in support
National Grid NTS	(NGNTS)	Not in support
RWE Trading GmbH	(RWE)	Not in support

Thus, of the seven responses, four supported implementation and three did not.

NGNTS believed that the Proposal failed to take account of situations where a bi-directional point was part of a larger ASEP or exit point.

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

No such requirement has been identified.

## **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 has been identified.

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

Changes to systems and/or manual processes would be required to support the revised calculation of overrun charges.

## **15 Proposed implementation timetable (including timetable for any necessary information systems changes and detailing any potentially retrospective**



**impacts)**

If a Class 2 UK Link Modification were required, an implementation date of June 2008 is indicated, unless the UK Link Committee decided otherwise.

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

No such implications have been identified.

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

**18 Transporter's Proposal**

This Modification Report contains the Transporter's proposal not to modify the Code and the Transporter now seeks agreement from the Gas and Electricity Markets Authority in accordance with this report.

**19 Text**

The Modification panel did not determine that text was required, but Ofgem has subsequently requested that this be prepared by the Transporters and will be incorporated in a revised version of this report when available.

For and on behalf of the Relevant Gas Transporters:

**Tim Davis**  
**Chief Executive, Joint Office of Gas Transporters**