









UNC Modification	At what stage is this document in the process?
<h1 data-bbox="132 320 657 412">UNC 0789:</h1> <h2 data-bbox="132 450 1107 663">Energy Balancing Arrangements During the Operation of a Supplier Undertaking to Transporters</h2>	<div data-bbox="1209 309 1468 627"> <div>01 Modification</div> <div>02 Workgroup Report</div> <div>03 Draft Modification Report</div> <div>04 Final Modification Report</div> </div>
<p>Purpose of Modification:</p> <p>To introduce new arrangements to incentivise delivery of gas to the Total System where, following the termination of a Shipper User providing shipping services to one or more Gas Suppliers, no new Shipper User (a 'Registered User') is appointed and one or more of the Suppliers acts in accordance with a Supplier Undertaking. These arrangements will apply until such time a new Registered User is in place.</p>	
<p>Next Steps:</p> <p>The Proposer recommends that this Modification should be:</p> <ul style="list-style-type: none"> treated as Urgent and should proceed as such under a timetable agreed with the Authority 	
<p>Impacted Parties:</p> <p>High: Suppliers, Shippers, National Grid NTS, Consumers</p> <p>Low:</p> <p>None:</p>	
<p>Impacted Codes:</p> <p>None</p>	

Contents		 Any questions?
1	Summary	3
2	Governance	4
3	Why Change?	5
4	Code Specific Matters	9
5	Solution	9
6	Impacts & Other Considerations	10
7	Relevant Objectives	12
8	Implementation	13
9	Legal Text	13
10	Recommendations	13
Timetable		 0121 288 2107
Modification timetable:		Contact: Joint Office of Gas Transporters
Modification Proposal sent to Ofgem	19 October 2021	 enquiries@gasgovernance.co.uk
Ofgem decision on Urgency	19 October 2021	 phil.lucas@nationalgrid.com
Modification Proposal issued for Consultation	19 October 2021	 07825 592518
Consultation Close-out for representations	26 October 2021	Transporter: National Grid NTS
Final Modification Report available for Panel	27 October 2021	 phil.lucas@nationalgrid.com
Modification Panel recommendation	29 October 2021	 07825 592518
Final Modification Report issued to Ofgem	29 October 2021	Systems Provider: Xoserve
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1 Summary

What

In a User Termination scenario where the relevant Shipper User provides shipping services for one or more Gas Suppliers, such Suppliers are required by their Supplier Licence to make timely arrangements with a 'new' Shipper to act as the Registered User for their respective consumers ('Supply Points').

Whilst continuity of shipping arrangements at all Supply Points is the preferred outcome, if there is a period during which no replacement Shipper User is appointed, industry arrangements are in place (via a 'Supplier Undertaking') which provides for the Supplier to pay the Transporter all relevant charges for gas taken out of its pipeline system from the date the Shipper User Termination takes effect. This covers both Transportation Charges and Energy Balancing Charges.

Why

The 'Supplier Undertaking' recognises that a Gas Supplier will not have established commercial arrangements to secure delivery of gas to the Total System in order to balance the demand of its consumers. Hence the Energy Balancing Charges (payable by Gas Supplier pursuant to the Undertaking) operate on the assumption of the relevant Gas Supplier delivering no (zero) gas to the Total System on each of the relevant days. Consequently, the Gas Supplier is effectively required to pay for all its consumers' gas demand at a unit rate in excess of the average cost of gas (a process known as 'cash-out').

In respect of physical delivery of gas, National Grid NTS in its role as residual balancer would typically then take system buy balancing actions to incentivise the delivery of additional supplies to the Total System to meet the demand of the relevant Supplier(s) and ultimately consumers. In taking such actions, National Grid NTS, as the residual balancer, is held cash neutral.

As Shipper Users are individually incentivised to balance their supply and demand, the role of residual balancer was only ever envisaged to necessitate the 'fine tuning' of the net balancing position of all Shipper Users (which are actively taking actions to balance their supply and demand) in order to maintain an operational balance. However, given the prevailing market conditions which has increased risk of Shipper failure there is a material increase in the likelihood of National Grid NTS having to take action in respect of securing material volumes of gas to meet the demand of the relevant consumers where a Supplier has to act in accordance with a Supplier Undertaking until a new Registered User is in place.

As the Residual Balancer trades set the System Marginal Prices (Buy and Sell) then this will both increase the cashout prices for Shippers and increase system prices for all Users. There is also a risk to the market that National Grid NTS would be unable to fulfil its residual balancing role due to a lack of liquidity and increases the scope / volume associated to the Residual Balancer role.

This materially increases the financial risk to the balancing neutrality account, given that there is a time-lag of up to two and a half months between settlement of energy balancing trades and subsequent recovery of the costs via Energy Balancing Charges.

How

It is proposed that all active Shipper Users conveying gas to consumers are incentivised (via the existing energy balancing / 'cash out' process) to secure additional supplies to the Total System to balance the demand of consumers supplied by any Gas Supplier who is acting in accordance with a Supplier Undertaking. The additional quantity each Shipper User will be incentivised to deliver for each Day will be determined based on

the proportion of throughput for each Shipper User (compared to the aggregate throughput for all Shippers Users) in the second calendar month prior to the Day.

It is proposed that the incentive for each Shipper User would be achieved by increasing the 'demand' side of its Daily Imbalance calculation by the relevant quantity. The relevant suppliers would still be required to pay the SMP buy cashout charges which would then be credited to Shipper Users via the established balancing neutrality process subsequently. This solution should therefore reduce costs for Shipper Users as a whole and avoid a potentially unsustainable strain on the balancing neutrality account.

2 Governance

Justification for Urgency

Ofgem's open letter dated 17 February 2016 specifies guidance for the circumstances under which a Modification Proposal would be considered for urgent procedures. This specifies that an urgent Modification should be linked to an imminent or current issue that if not urgently addressed may cause a significant commercial impact on parties, consumers or other stakeholders, a significant impact on the safety and security of the electricity and/or gas systems, or cause a party to be in breach of any relevant legal requirements.

There is currently a heightened risk of Shipper Users ceasing to trade which may ship gas for multiple Suppliers. If these Suppliers elect to operate under their 'Supplier Undertaking' (explained in the Why Change? Section 3, below) then there would be no User delivering gas to the system to meet the demand of these Supply Points, thereby generating a national supply / demand imbalance assuming all other Users were balanced.

Under its role as Residual Balancer when National Grid NTS buys gas under this role it sets the System Marginal Buy price which Suppliers operating under the Supplier Undertaking will be exposed to under their imbalance charges as well as Shippers who are short on any day. This will impact the costs incurred by these parties as well increasing overall industry costs.

In its role as Residual Balancer National Grid NTS only has access to the On the Day Commodity Market and therefore Shippers would be best placed to source the gas at the most efficient price – providing the lowest cost outcome for Suppliers, Shippers and ultimately consumers.

If National Grid NTS acting as the residual balancer were to procure gas on the On-the-day Commodity Market (OCM) to cover the shortfall, the balancing neutrality account (from which payment is made to the counter-party 2 days after execution of such balancing trades) increasing the financial risk to the balancing neutrality account.

We therefore believe that if this Modification is not implemented urgently, there is a risk of a significant commercial impact on parties. Further, if other Users were to cease trading in similar circumstances vis-à-vis Suppliers, a risk of a significant impact on the operation of the gas system and gas markets.

Requested Next Steps

This Modification should:

- be treated as Urgent and should proceed as such under a timetable agreed with the Authority.

Given the prevailing market conditions in the gas shipping and gas supply markets driven by the rapid increase in commodity prices, the issue highlighted in this Proposal needs to be addressed as a matter of urgency and such a timescale did not enable any pre-modification engagement.

3 Why Change?

Background

In the event of the Termination of a Shipper User, any Suppliers utilising the services of that Shipper User are notified of such Termination. In these circumstances, Supplier Licence Condition 18.4 requires Gas Suppliers to “*take all reasonable steps*” to appoint a replacement Shipper User for its customers within 25 working days of receiving notice of the Termination of the Shipper User.

If such a Supplier does not immediately appoint a replacement Shipper User for the consumers it supplies, under the terms of Supplier Licence Condition 18.1 it is required to:

- provide the appropriate security to the Transporter; and
- pay the Transporter all relevant charges for gas taken out of its pipeline system from the date the Termination of the Shipper User takes effect.

The above referenced Supplier agreement to provide security and make payments to the Transporter is known as the ‘Supplier Undertaking’ and under the terms of Supplier Licence Condition 18.2, all Suppliers are required to provide such an undertaking to the Relevant Gas Transporters (i.e. to those networks utilised to convey gas to the relevant consumers).

The current terms of the Supplier Undertaking (including those made to National Grid NTS) set out that in respect of Energy Balancing Charges, the relevant Gas Supplier pay such charges as if the shipper concerned (i.e. the Shipper User now Terminated) had “*not at any time during the relevant period introduced or arranged to introduce any gas into National Grid NTS’s pipeline system*”. Accordingly, the Supplier is assumed to have delivered no (i.e. zero) gas to the system to balance the demand of the consumers it supplies.

As a consequence, the relevant Supplier is required to pay a ‘cash out’ charge at the System Marginal Price (buy) (i.e. at a rate higher than the System Average Price) in respect of the volume of demand of the consumers it supplies. In practice, under current arrangements, and assuming all other Shipper Users in the market match their supply and demand, responsibility for securing the delivery of the gas to the Total System (for the required volumes) falls on National Grid NTS in its role as residual balancer for the Total System. This will also increase the imbalance costs for Shippers who are short as they will be charged based on the SMP(buy) price.

In its role as Residual Balancer National Grid NTS only has access to the On the Day Commodity Market and therefore Shippers would be best placed to source the gas at the most efficient price – providing the lowest cost outcome for Suppliers, Shippers and ultimately consumers.

If National Grid NTS acting as the residual balancer were to procure gas on the On-the-day Commodity Market (OCM) to cover the shortfall, the balancing neutrality account (from which payment is made to the counter-party 2 days after execution of such balancing trades) increasing the financial risk to the balancing neutrality account. Energy Balancing charges are invoiced monthly, being levied at the start of the second month following the month in which trades were executed, with payment being due later in that month (for example, Energy Balancing Invoices for the month of October would be issued in early December).

Recent Events

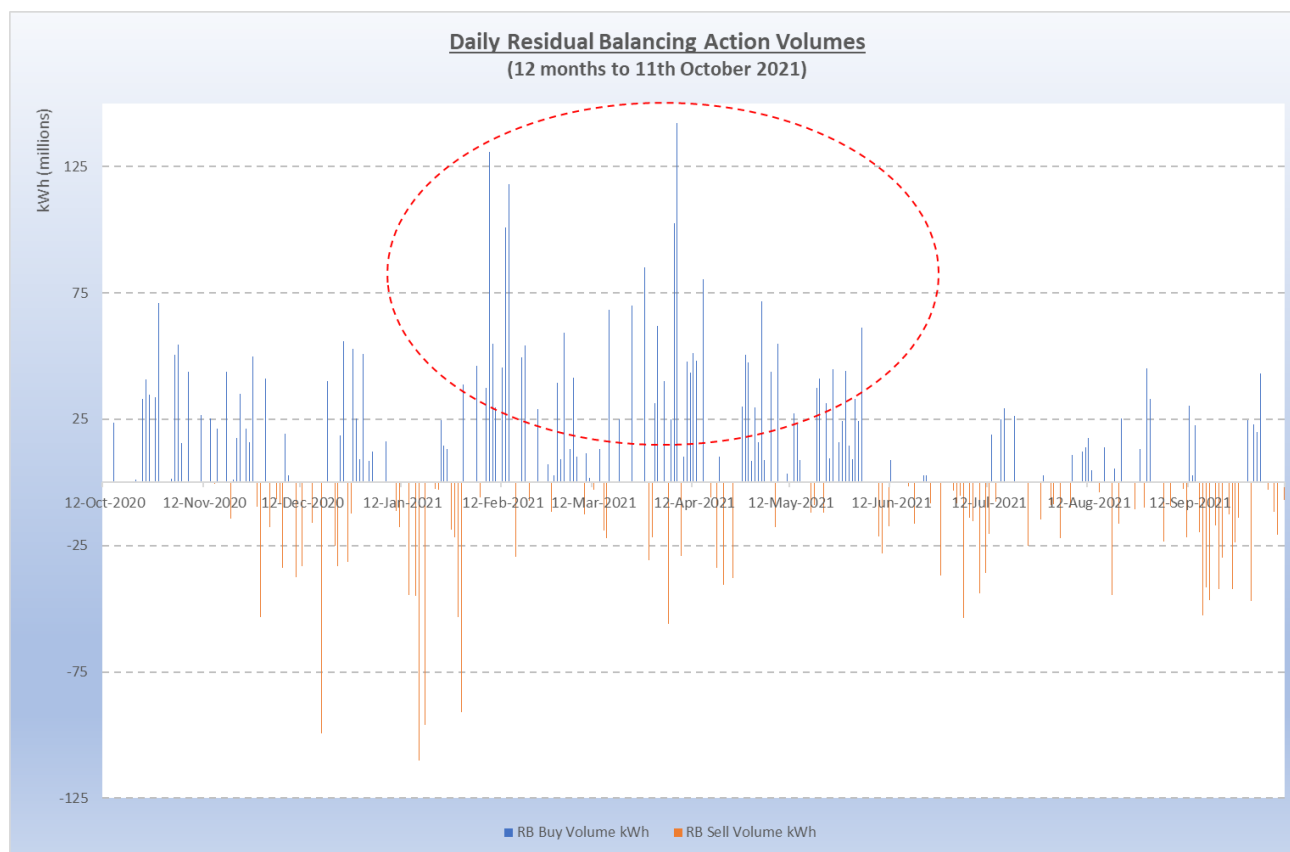
The potential exposure of Gas Suppliers (acting pursuant to a Supplier Undertaking) to Energy Balancing Charges at the System Marginal Price (buy) was expected to act as an incentive for a Gas Supplier to secure arrangements with a new Shipper User at the earliest opportunity if its existing Shipper User is terminated. However, recent experience has demonstrated this is not necessarily the case.

As a consequence of the failure of a Gas Shipper in early 2021, and the relevant Supplier electing to act in accordance with a Supplier Undertaking, as Residual Balancer National Grid NTS was required to secure

supplies for a portfolio of up to 300,000 Supply Points for a period of 6 months whilst such Supply Points were incrementally transferred to a new Shipper User.

The following table and chart illustrates the maximum extent (in this instance) of the additional gas that needed to be secured by National Grid NTS as the residual balancer to meet the demand of the relevant Supplier's consumers (the 'Exceptional' period) compared to when this was not required (the 'Normal' period) over the last 12 months.

Period	Average Daily Buy Volume	Illustrative Average Daily Cost at 8p/kWh	Illustrative Average Daily Cost at 2p/kWh	Magnitude compared to 'Normal' Volume
<i>Normal:</i> 12 th Oct 2020 to 21 st Jan 2021; and 4 th Jun 2021 to 11 th Oct 2021	6,440,614 kWh	£515,249	£128,812	~
<i>Exceptional:</i> 22 nd Jan 2021 to 3 rd Jun 2021	20,697,864 kWh	£1,655,829	£413,957	3.21 x



The requirement for National Grid NTS to fund this residual balancing cost in the short-term, pending recovery of the costs from Energy Balancing charges and created neutrality account funding challenges. Given this and the present situation, it brings into question the effectiveness of the current arrangements.

The current 'challenging' commercial environment in both gas shipping and gas supply has increased the risk of further gas Suppliers needing, or electing, to operate in accordance with an Undertaking for a transitional period and presents a material concern with regards to the neutrality account funding arrangements for the consequential extent and scale of Residual Balancing actions that would potentially be required. We are of the opinion that considering the material increase in the level of risk in the balancing neutrality arrangements, a more robust solution is required.

Rationale for Proposed Solution

The solution advocated by this Proposal transfers the responsibility for delivering additional supplies to the Total System (specifically to meet the demand of a Supplier acting in accordance with a Supplier Undertaking) to all other active Shipper Users on the Total System that make arrangements with the Gas Transporters to convey gas.

The volume of additional gas supplies required will be equal to the forecast demand of the consumers supplied by a Gas Supplier operating in accordance with a Supplier Undertaking. The expected volume to be supplied to the system by each of the 'live' Shipper Users will be a subset of that overall demand volume equal to the proportion of the Shipper User's throughput (to all Shipper Users' throughput) in the second calendar month prior to the Day. This is because such throughput volumes are not finalised (closed out) until the 15th day following the end of month ('M+15').

The following table provides an illustration of the current distribution of Shipper User throughput share to indicate the potential maximum, and typical, proportion of additional gas supplies (for consumers of the relevant Supplier) that *individual* Shipper Users will be incentivised to procure under the proposed arrangements:

Percentage of Throughput Range (Aug 2021 Throughput)	Number of Users (108 in total)
12% to less than 14%	1 (maximum 13.314%)
10% to less than 12%	0
8% to less than 10%	1
6% to less than 8%	1
4% to less than 6%	3
2% to less than 4%	5
1% to less than 2%	13
Less than 1%	84

It is important to note that the Proposal does not seek to *mandate* delivery of such additional volumes to the system, conversely, in line with the current *incentives* in place for Shippers Users to balance inputs and

outputs, the 'demand' side of the Shipper User's Daily Imbalance will be increased by the requisite amount to incentivise that Shipper User to deliver additional gas volumes to the Total System.

This volume of additional demand will not change after this is issued to Users (the 'finalised value' as detailed in the solution), regardless of whether that forecast-based value is different to the *actual* demand subsequently determined for that portfolio of Supply Points. This determination of actual demand from these Supply Points may not be finalised for many months. For instance, not until a reading is procured from a Non-Daily Metered (NDM) Supply Point - for example, a small commercial premises.

From this perspective, the Shipper would have certainty of the additional supply volumes (which it is incentivised to procure) by 13:00 on D. Consistent with existing arrangements, if it fails to match the supply side of its daily imbalance calculation with the demand side (including the 'finalised value' under this proposed mechanism) then it will pay the appropriate imbalance charge (i.e. depending whether it is 'short' – insufficient supply - or long – too much supply). However, it is critical to note that any subsequently identified 'inaccuracy' in the additional demand which National Grid NTS has determined will not change the Shipper's 'finalised value' which will be included in the demand they will balance to (other elements of their demand may change and they would seek to balance as now).

In terms of the costs levied to the relevant Supplier, the initial Energy Balancing charges will be assessed with the assumption of zero supply volumes against the demand volumes assessed at that point (for example, actual consumptions from Daily Read Supply Points and forecasts in respect of NDM Supply Points). At this point, the Supplier will be cashed out at the SMP (buy) price i.e. it will be paying a premium unit cost for all of its demand. Any Energy Balancing surplus funds generated by these imbalance charges will be socialised to all Shippers (including any Supplier acting in accordance with a Supplier Undertaking) as per existing process (via Balancing Neutrality) as National Grid NTS must remain cash neutral to the Energy Balancing charges.

As per existing processes, subsequent reconciliations of NDM Supply Points will result in an Energy charge adjustment for the Supplier (positive or negative, dependant on whether actual consumption was more or less than forecast) at System Average Price.

For the above reasons, any inaccuracy in the forecasting of additional demand volumes under this mechanism will not result in additional Energy Balancing Charges payable by the Shippers.

Summary

Overall, we believe the changes proposed are the correct approach as:

- notwithstanding National Grid NTS role as residual balancer, Gas Shippers, as a collective, have the primary role of maintaining system balance and are therefore best placed to secure potentially material quantities of additional supplies to the system (at an optimal cost) to cover the demand from larger Supply Point portfolios;
- procurement of additional supplies by Gas Shippers will have a lesser impact on the System Average Price and System Marginal Prices (Buy) compared to actions taken by National Grid NTS in its residual balancing role; and
- the residual balancer role was envisaged to address a net volume of 'fine-tuning' imbalance as a consequence of shippers making reasonable efforts to individually maintain a balance, and was not envisaged to procure additional gas to meet the requirements of supply points who are temporarily without a Registered User and whose suppliers do not have the commercial capability to deliver gas to the Total System.

4 Code Specific Matters

Reference Documents

Gas Supplier Licence in the Ofgem [e-public register](#)

[TPD V4: Discontinuing Users and Termination](#)

[TPD E5: Imbalance](#)

Knowledge/Skills

Knowledge of

- Shipper User Termination scenarios and process; and
- User imbalance calculations

would be beneficial.

5 Solution

Event Trigger

It is proposed that the proposed arrangements take effect:

- from the date a Termination Notice issued to a Shipper User (the 'terminated Shipper') by a Transporter under TPD Section V4.3.3, or TPD X, takes effect; and
- where no new Registered User is in place (or appointed) for one or more of the relevant Supply Points until the point at which a new Registered User is in place; and
- a Supplier is acting in accordance with a Supplier Undertaking in respect of the relevant Supply Points.

The term '*relevant Supply Points*' means those Supply Points where the terminated Shipper was the Registered User prior to the date the User Termination took effect and no Registered User is in place following that date. For the avoidance of doubt, where a User subsequently becomes the Registered User of a such Supply Point, it is no longer a 'relevant' Supply Point (for the purposes of this mechanism) from the date that registration takes effect.

Incentivising Delivery of Additional Gas to the Total System

It is proposed that for each day:

- National Grid NTS determines an ex-ante forecast demand for the relevant Supply Points (the $FDRS_d$);
- each 'live' Shipper User's additional delivery quantity to be incentivised (ADQ_d) is calculated as follows

$$ADQ_d = TS_{m-2} \times FDRS_d$$

where:

TS_{m-2} means the User's throughput share for the second calendar month prior to the day which is calculated as follows:

$$TS_{m-2} = \frac{\sum_{d,m-2} UT_d}{\sum_{d,m-2} AUT_d}$$

where

$\sum_{d,m-2}$ means the sum of across all days in the second calendar month prior to the relevant day;

UT_d means in respect of a day, the relevant User's throughput (the sum of (1) the aggregate of the User's UDQIs and (2) the aggregate of the User's UDQOs, divided by 2) for the Total System; and

AUT_d means in respect of a day, the sum of all User's throughput (for each User respectively, by the method set out in the description of UT_{m-2} above).

$FDRS_d$ means for the relevant day, the National Grid NTS forecast demand for the relevant Supply Points as described above.

- where a further Termination Notice is issued to a Shipper User, from the date that notice takes effect the throughput share calculation (to determine TS_{m-2}) shall be prospectively re-determined;
- the values determined for $FDRS_d$ and the relevant User's ADQ_d will be communicated to each relevant User by:
 - 16:00 on the day prior to the Gas Day (the 'initial value'); and
 - 13:00 on the Gas Day (the 'finalised value' which for the avoidance of doubt supercedes the initial value)
- the demand side of the Shipper User's Daily Imbalance calculation (TPD Section E5.1.1(b)) will be increased by the 'finalised value' ADQ_d

6 Impacts & Other Considerations

Does this Modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

No.

Consumer Impacts

Under existing arrangements, the costs of Residual Balancing actions are currently socialised across all Shipper Users. The proposed approach would enable greater optimisation of those costs reducing the extent of such costs passed through to consumers.

What is the current consumer experience and what would the new consumer experience be?

Reduced charges in the event that in aggregate Shipper Users are able to secure the additional supplies at a lower unit cost than National Grid NTS as the residual balancer.

Impact of the change on Consumer Benefit Areas:

Area	Identified impact
Improved safety and reliability	None

Lower bills than would otherwise be the case If Gas Shippers are able to secure the additional supplies at a lower unit cost than National Grid NTS as the residual balancer (such costs are passed through to Gas Shippers) this should reduce the extent of costs passed through to consumers	Positive
Reduced environmental damage	None
Improved quality of service	None
Benefits for society as a whole	None

Cross-Code Impacts

None

EU Code Impacts

None.

Central Systems Impacts

None identified at this stage.

7 Relevant Objectives

Impact of the Modification on the Transporters' Relevant Objectives:	
Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	Positive
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	None
c) Efficient discharge of the licensee's obligations.	None
d) Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Positive
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards... are satisfied as respects the availability of gas to their domestic customers.	None
f) Promotion of efficiency in the implementation and administration of the Code.	None
g) Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	None

The Modification furthers Relevant Objective d), as follows:

a) Efficient and economic operation of the pipe-line system;

The proposed changes in this Modification would introduce a more efficient and potentially more economic means of securing delivery of additional supplies material volumes of gas to the Total System to balance the demands from the consumers of a Supplier that is acting on accordance with a Supplier Undertaking. This affords Shipper Users a level of control over the costs of those potentially material volumes which it may be able to secure in a more efficient manner from sources not available to National Grid NTS as the Residual Balancer.

Provision of such additional supplies by Shipper Users as a collective will enable National Grid NTS to continue and focus on the role of Residual Balancer within the current commercial frameworks in the most efficient and economic manner. This ensures that the Residual Balancer function delivers the intended service of fine tuning the aggregate imbalance on the Total System (from Shippers Users actively seeking to balance inputs and outputs) in absence of the further function of the procurement of additional gas supplies, effectively on behalf of failed Shipper Users.

d) Securing of effective competition between relevant shippers;

The proposed changes in this Modification are expected to provide a more efficient means of securing delivery of additional gas supplies to the Total System for the specific purpose of meeting the gas demand of a Supplier acting in accordance with a Supplier Undertaking. Enabling Gas Shippers to control the procurement of such volumes (as opposed to incurring a proportion of the residual balancing costs via a socialised National Grid NTS costs, the level of which are outside the control of the Shipper) enables the Shipper to optimise those costs thereby better securing effective competition between Shippers compared to the arrangements currently in place.

8 Implementation

Implementation is sought as soon as practicable given the current difficulties being encountered within the Gas Shipping and Gas Supply Markets and the highlighted potential impact on National Grid NTS as the residual balancer.

There is no lead time required for implementation hence this Modification could be implemented as soon as practicable following an Authority direction to implement it.

9 Legal Text

Text Commentary

See additional document.

Text

Legal Text has been published alongside this Modification.

10 Recommendations

Proposer's Recommendation

This Modification should be treated as Urgent and should proceed as such under a timetable approved by the Authority.