

## Stage 01: Proposal

# 0415:

## Revision of the Gas Balancing Alert Arrangements

This modification seeks to introduce revisions to the GBA arrangements, which will provide an improved signal, to the industry, for timely market response on days where there is a Supply/Demand deficit forecasted.



The Proposer recommends that this modification should proceed to a Transmission Workgroup.



High Impact:  
Transporters and Shippers



Medium Impact:  
End Consumers



Low Impact:

What stage is this document in the process?

01

Proposal

02

Workgroup Report

03

Draft Modification Report

04

Final Modification Report

0415

Modification

31 March 2012

Version 4.0

Page 1 of 27

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## Contents

- 1 Summary
- 2 Why Change?
- 3 Solution
- 4 Relevant Objectives
- 5 Impacts and Costs
- 6 Implementation
- 7 The Case for Change
- 8 Legal Text
- 9 Recommendation

## About this document:

This document is a proposal that will be presented by the Proposer to the Panel on 16 February 2012. The Panel will consider the Proposer's recommendation, and agree whether this modification should proceed to consultation or be referred to a Workgroup for assessment.



### Any questions?

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0415

Modification

31 March 2012

Version 4.0

Page 2 of 27

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# 1 Summary

## Is this a Self-Governance Modification?

The proposer does not believe that this modification should be classed as self-governance as there is a potential high impact on system Users of the proposed changes.

## Why Change?

The GBA arrangements were introduced as part of Modification Proposal 0061 – 'Facilitating Further Demand Side Response in the Event that a Gas Balancing Alert is Triggered', implemented in December 2005.

The intent of the prevailing GBA arrangements was to inform Users of a near term requirement to redress the forecast system imbalance; however, as a result of GBA events initiated during winter 2010/11, User feedback indicated that some aspects of the GBA signal may no longer be as effective as when initially introduced.

National Grid NTS acknowledged the concerns expressed by Users and considered that after five years in operation it was an appropriate time to review the prevailing GBA arrangements. A workgroup was initiated to discuss several proposed enhancements to the GBA arrangements. The outcome of these discussions resulted in the GBA revisions put forward in this modification.

National Grid believes that the proposed revisions will facilitate more efficient management of system supply/demand imbalances and reduce the risk of a forecasted supply/demand imbalance escalating up to a Gas Deficit Emergency (GDE).

## Solution

This Proposal seeks to introduce revisions to the GBA arrangements as follows:

- Replace the current term 'GBA' with two discrete terms ~~(current day ahead and within day GBA signals are determined as outputs of two types of GBA trigger methodologies. The introduction of separate terms aims to provide greater clarity):~~
  - Proposed replacement term for current Day Ahead signal:  
**Margins Notice (MN)**
  - Proposed replacement term for current Within Day signal:  
**Gas Deficit Warning (GDW)**
- Introduce ability to withdraw **GDW**
- ~~In respect of the GDW—Update the UNC description of the trigger methodology to provide greater clarity~~
- Revise the trigger methodologies for the MN and GBA:
  - a. Clarification of the MN Trigger Methodology within the UNC
    - i) ~~Potential to d~~Define within the UNC the 'Expected Available Supply Level'
  - b. Revision of the ~~GD~~AW Trigger Methodology

0415

Modification

31 March 2012

Version 4.0

Page 3 of 27

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- Introduction of the capability to initiate a **GDW** before the relevant Gas Flow Day

## Impacts and Costs

We believe that if implemented this modification will introduce greater clarity to Users of the forecasted system balance, the day ahead of, and on the day, that a System Supply/Demand gas deficit has been determined.

We do not anticipate that any UK Link system changes will arise as a result of the implementation of this modification and therefore we do not anticipate any system costs.

## Implementation

To be defined at the Workgroup.

## The Case for Change

The GBA has been in place for 5 years in which time the arrangements have sought to provide the industry with a signal for demand side response, where a significant gas flow deficit was forecast either during the day ahead or within the gas flow day. Recent feedback indicates that some of the aspects of the GBA signal may no longer be as effective as when initially introduced. We believe that the proposed suite of revisions to the GBA arrangements will improve the signal provided to the industry and as a result may improve National Grid 's ability to efficiently and economically manage the pipeline system, through enabling Users to respond to a supply/demand deficit, thereby better facilitating Standard Licence condition 11 a) efficient and economic operation of the pipeline system.

## Recommendations

We consider that this modification should proceed to a Transmission Workgroup.

## 2 Why Change?

### Principle Drivers for Change;

- Timely review triggered by last winters GBA days;
- Industry feedback – effectiveness of GBA;
- Output from discussions during the Significant Code Review (SCR) workshops
  - Explore preventative measure pre-declaration of a Gas Deficit Emergency (GDE)

### Background

National Grid has a UNC obligation (V5.9) to alert system users of an End of Day (EoD) System Supply/Demand imbalance via a Gas Balancing Alert (GBA).

The prevailing GBA arrangements were introduced as part of Modification 0061 – ‘Facilitating Further Demand Side Response in the Event that a Gas Balancing Alert is Triggered’, implemented in December 2005.

The intent of the GBA is to inform Users of a near term requirement to redress the forecast system imbalance. However, following the winter 2010/11 GBA events, User feedback has indicated that some aspects of the GBA signal may not be as effective as initially anticipated.

Additionally we note that enhancements to the GBA arrangements, as a pre-emergency preventative measure, have featured in recent discussions within Ofgem’s Security of Supply (SoS) Significant Code Review (SCR) meetings.

During January and February 2011 Ofgem held several SCR industry workshops, where Ofgem lead discussions predominantly focused on exploring potential refinements to, or revisions of, the GDE arrangements. As part of the workshop debate, it was suggested that there was merit in exploring pre-emergency ‘preventive measures’ that may mitigate the likelihood of entering Stage 1 of a GDE. In particular the workshop considered the refinement of the GBA arrangements such that it may provide an improved and a more informative signal, to both shippers and other industry parties, for timely demand and/or supply side response on days where there is a significant System Supply/Demand deficit forecasted for the relevant Gas Flow Day.

As a result National Grid NTS initiated a GBA review workgroup to provide the industry with the opportunity to explore improvements to the GBA, which provide the industry with a signal to initiate the appropriate response which may reduce the risk of a significant system supply/demand imbalance escalating up to a GDE.

### GBA Definition

Despite the separate UNC definitions of a Within Day and a Day Ahead GBA alert, National Grid NTS believes that it is not always clear, to the industry, what level of severity of system status the GBA is signalling, under which methodology National Grid NTS has determined the GBA, or what expected corrective action is required.

0415

Modification

31 March 2012

Version 4.0

Page 5 of 27

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The prevailing single term 'GBA' may not be sufficiently granular to provide a clear indication of the severity, and time criticality, of the forecast supply / demand deficit. This has, on occasions, resulted in Users responding to a GBA only to find that later in the day the system has closed with a gas surplus. As a result, there are concerns regarding the efficacy of the prevailing GBA arrangements, particularly regarding the risk that the User may respond inappropriately to GBAs initiated under the current provisions.

In respect of existing GBA arrangements, National Grid NTS has limited scope for discretion when applying the day ahead trigger methodology, but has a level of discretion when determining the current within day Alert.

### Prevailing Day Ahead GBA

Under prevailing arrangements, National Grid NTS Gas Network Control Centre (GNCC) calculate a D-1 GBA trigger level which represents a view of total forecasted system supply. In compliance with Code the D-1 GBA trigger level is assessed daily against forecast demand (Round UP) to determine if a supply/demand imbalance is forecast for the coming gas day.



The GNCC run this process daily to ensure the latest available storage deliverability is included within the D-1 trigger level. The D-1 GBA trigger level is then published on the National Grid website.

Where the forecast Demand exceeds the D-1 GBA trigger level, a GBA on D-1 is issued, along with the publication of additional information on the National Grid web site and via ANS handsets.

The UNC states that the D-1 trigger is determined via the provision described below:

*'UNC section V5.9.3*

*National Grid NTS shall issue (by means of publication on its website) an alert (a "**Gas Balancing Alert**") where, after forecasting demand for a Gas Flow Day in accordance with Section H 5.2.3 and Section H5.2.4 on the preceding Day, the Forecast Total System Demand for the Gas Flow Day in question is greater than or equal to the Forecast Total System Supply for such Gas Flow Day.*

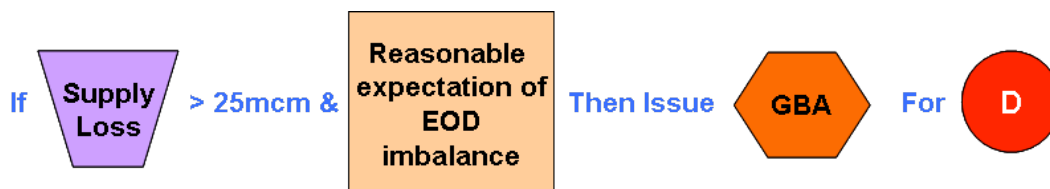
*UNC section V5.9.6 states:*

- (a) *"**Forecast Total System Supply**" means the anticipated maximum daily supply to the Total System for the Gas Flow Day in question incorporating only the sum of the quantity of gas that could be withdrawn in aggregate from relevant Storage Facilities and delivered to the Total System on such Gas Flow Day without breaching the Two Day Ahead Minimum Storage Deliverability Amount;'*

Rather than provide a view of supply based on maximum daily supplies, National Grid NTS believes that a more accurate determination of supplies based on supplies that would normally be expected on a high demand day will provide a more better view of expected system conditions.

## Prevailing Within Day GBA

The Within Day GBA process is triggered by a single or aggregated supply loss during a gas day that is greater than 25mcm. Following notification of supply loss, GNCC will make a decision on whether it is appropriate to issue a GBA. The decision is currently based on the revised Delivery Flow Notification (DFN) supply forecast, the latest available within day forecast demand, and the Predicted Closing Linepack (PCLP).



National Grid NTS has discretion on whether to issue a within day GBA only when the system has experienced a 25mcm supply loss.

The current arrangements can restrict the ability to issue a within GBA e.g. where a supply loss of less than 25mcm may cause a system issue. We also note that currently, no demand side trigger exists; therefore, where a change in demand is forecast to provide a significant end of day system imbalance, National Grid NTS cannot publish a GBA. Therefore we believe that revising the within day trigger methodology will improve the ability for National Grid NTS to publish within day alerts, providing improved information to the industry.

At present, a within day GBA cannot be issued until the start of the gas flow day. However, National Grid NTS may become aware of information that will impact system imbalance on a specific gas day before the gas day starts. We believe that, providing Users with system warning information as soon as possible will allow Users to appropriately respond to such signals. Therefore, we believe that the providing the ability for National Grid NTS to be able to issue a within day GBA prior to the gas day will improve information to the industry.

## Inability to Withdraw a Within Day GBA

Under prevailing arrangements, once issued, a GBA remains in place until the end of the Gas Flow Day to which it relates; this is the case for both the Day Ahead and the Within Day GBA.

Since the introduction of the GBA arrangements there have been a number of instances where, following the issue of a GBA (in accordance with UNC section V5.9.3 and V5.9.4), the Transmission System has closed 'heavy' on a Gas Flow Day.

Where updated information indicates that the forecast system imbalance has reduced to acceptable levels, there may be benefit in informing Users that National Grid NTS no longer forecast a critical system imbalance. Therefore, developing the potential to withdraw a within day GBA will better inform the industry.

## Compliance with European Regulation

'REGULATION (EU) No 994/2010 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - concerning measures to safeguard security of gas supply and repealing Council Directive' was published on 20<sup>th</sup> October 2010.

0415

Modification

31 March 2012

Version 4.0

Page 7 of 27

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The European Regulations identify a number of 'crisis levels' which the European council directive would expect to be in place to in order that risks associated with Security of Gas Supply within the respective Transportation systems are mitigated.

We consider that the current arrangements could be improved to better meet the European Regulation requirement. We believe that the proposed arrangements, combined with arrangements already in place (such as emergency procedures) comply with the measures set out in the European regulation Article 10 – Emergency Plans and Crisis levels paragraph 3:

**'Article 10 - Emergency Plans and Crisis Levels**

3. The three main crisis levels shall be as follows:

- (a) early warning level (early warning): when there is concrete, serious and reliable information that an event may occur which is likely to result in significant deterioration of the supply situation and is likely to lead to the alert or the emergency level being triggered; the early warning level may be activated by an early warning mechanism;
  
- (b) alert level (alert): when a supply disruption or exceptionally high gas demand occurs which results in significant deterioration of the supply situation, but the market is still able to manage that disruption or demand without the need to resort to non-market measures;
  
- (c) emergency level (emergency): in the event of exceptionally high gas demand, significant supply disruption or other significant deterioration of the supply situation and in the event that all relevant market measures have been implemented but the supply of gas is insufficient to meet the remaining gas demand so that non-market measures have to be additionally introduced with a view, in particular, to safeguarding supplies of gas to protected customers according to Article 8.'

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:295:0001:0022:EN:PDF>



## 3 Solution

### Summary of proposed changes

This Proposal seeks to introduce revisions to the following areas of the GBA arrangements:

This Proposal seeks to introduce revisions to the GBA arrangements as follows:

1. Replace the current term 'GBA' with two discrete terms) (~~current day ahead and within day GBA signals are determined as outputs of two types of GBA trigger methodologies. The introduction of separate terms provides greater clarity of the methodology the signal is determined under~~):
  - o Proposed replacement term for current Day Ahead signal:  
**Margins Notice (MN)**
  - o Proposed replacement term for current Within Day signal:  
**Gas Deficit Warning (GDW)**
2. Withdrawal capability for GDW
3. Revise the trigger methodologies for the MN and GDW:
  - a. Clarification of the MN Trigger Methodology within the UNC
    - i) ~~Potential to d~~Define Expected Available Supply Level
  - b. Revision of the GDW Trigger Methodology
4. Introduction of the capability to initiate a GDW before the relevant Gas Flow Day

#### ~~5. Enhanced Information Provision~~

More detailed overview of the proposed changes is outlined below:

### 1. Replace the current term 'GBA' with two discrete terms

National Grid NTS considers that the prevailing single term, 'GBA', does not provide the industry with a sufficiently granular indication of the severity and time criticality of the forecast system supply/demand deficit.

Therefore, National Grid NTS proposes to replace the single reference with the following two defined terms:

1. For the Day Ahead Signal, National Grid NTS will issue a notice:  
**Margins Notice (MN)**, issued via its web site and ANS service, if the Expected Available Supply Level is less than or equal to day ahead forecast demand; and
2. For the Within Day signal, National Grid NTS will issue a warning:  
**Gas Deficit Warning (GDW)** which may be issued on or before the gas flow day.

### 2. Withdrawal Capability for GDW

0415

Modification

31 March 2012

Version 4.0

Page 9 of 27

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Under prevailing arrangements, once issued, a GBA remains in place until the end of the Gas Flow Day to which it relates; this is the case for both the Day Ahead and the Within Day GBA.

We believe that introducing the ability to withdraw a GDW will provide an improved signal to the market, thereby better informing the industry of the status of the system, through which Users may be better placed to appropriately respond to the system status.

To facilitate this objective, National Grid NTS propose the introduction of a GDW withdrawal Notice. It is not proposed to withdraw the Margins Notice once issued.

### **3. Revise the Trigger Methodologies for the MN and GDW**

National Grid NTS proposes revisions to both MN and GDW trigger methodologies as follows:

Day Ahead Trigger: National Grid NTS proposes to revise the UNC definition such that it provides greater clarity of the Day Ahead trigger methodology currently undertaken.

Within Day Trigger: This proposal seeks to broaden the events that would have the potential to trigger a GDW, such that both supply and demand events may constitute an event. Additionally National Grid NTS proposes greater discretion in the determination of whether or not to issue a GDW.

#### **3a. Trigger for a Margins Notice**

##### **Proposed revision to D-1 trigger**

It is proposed to introduce a new defined term 'Expected Available Supply' for the purposes of the D-1 MN signal. The D-1 system imbalance trigger level will be assessed against day ahead demand forecast. If the day-ahead demand forecast is greater than or equal to the D-1 Expected Available Supply, a MN will be issued (only one notification will be issued per day).

We propose that the Expected Available Supply will represent National Grid NTS's view of typical winter supply on a high demand day.

Once issued the notification will remain in place until the end of the Gas Flow Day it is applicable, unless it is superseded by a Gas Deficit Warning (GDW).

#### **3b. Trigger Methodology for Gas Deficit Warning**

##### **Proposed Within Day trigger methodology**

This Proposal will update the current methodology to include the impact of both demand side and supply side shocks that result in a forecast end of day system imbalance. In addition, the proposal will remove the greater than 25mcm loss trigger to provide greater discretion.

0415

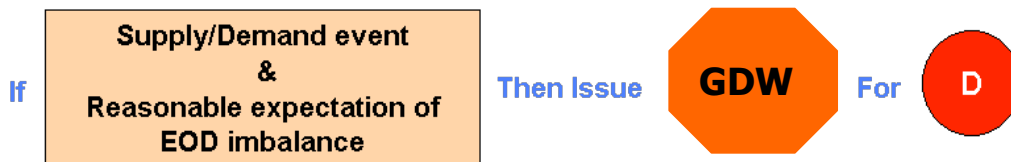
Modification

31 March 2012

Version 4.0

Page 10 of 27

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#### 4. Introduction of the capability to initiate a GDW before the relevant Gas Flow Day

##### Timescale for issue of a GDW

National Grid NTS believes that there may be instances, prior to entering the Gas Flow Day, where National Grid NTS becomes aware of reliable information, which represents an event that would trigger a Within Day Alert before the start of the Gas Flow Day. To ensure that the Within Day Alert is sufficiently flexible to accommodate such instances, we propose that the GDW may be issued before the Gas Flow Day. National Grid NTS considers that this would allow Users to appropriately respond to the Alert at the earliest opportunity.

##### ~~1. Introducing defined terms for a Day Ahead and a Within Day GBA~~

~~The prevailing UNC GBA provisions define how, and on what basis, both the Day Ahead and Within Day GBAs are issued, the term 'GBA' is adopted for both types of signal.~~

~~National Grid NTS considers that the prevailing single term, 'GBA', does not provide the industry with a sufficiently granular indication of the severity and time-criticality of the forecast system supply/demand deficit.~~

~~During the workgroup discussions regarding the review of the GBA attendees generally agreed that it would be helpful if there was a clear differentiation between a Day Ahead and a Within Day alert reference. The workgroup concluded that the GBA arrangements would benefit from replacing the single reference with the following two defined terms:~~

- ~~1. For the Day Ahead Signal, National Grid NTS will issue a notice:  
**Margins Notice (MN)**, issued via its web site and ANS service, if the Expected Available Supply Level is less than or equal to day-ahead forecast demand; and~~
- ~~2. For the Within Day signal, National Grid NTS will issue an warning:  
**Gas Deficit Warning (GDW)** which may be issued on or before the gas flow day.~~

~~National Grid NTS considers that providing such clarity to the GBA arrangements may better inform Users and may lead to improvements in the Users ability to put in place commercial arrangements which facilitate appropriate and timely responses to the forecasted system EOD imbalance.~~

##### ~~Suggested Business Rules:~~

~~UNC section V5.9. Operational and Market Data~~

~~V5.9.3 National Grid NTS shall issue (by means of publication on its website) a notice alert (a '**Margins Notice**' "**Gas Balancing Alert**") ....'~~

0415

Modification

31 March 2012

Version 4.0

Page 11 of 27

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5.9.4 National Grid NTS may issue (by means of publication on its website) a **Gas Deficit Warning** where during or before a Gas Flow Day.....'

## **~~2. Withdrawal of the Day Ahead and Within Day GBA~~**

Under prevailing arrangements, once issued a GBA remains in place until the end of the Gas Flow Day to which it relates; this is the case for both the Day Ahead and the Within Day GBA.

Since the introduction of the GBA arrangements there have been a number of instances where, following the issue of a GBA (in accordance with UNC section V5.9.3 and V5.9.4), the Transmission System has closed 'heavy' on a Gas Flow Day; where the initial forecasted system balance was in deficit, to a forecasted end of day position where National Grid NTS considers the system balance deficit has reduced to an acceptable position.

The revision in forecast may have resulted from;

- 1.—— Receipt of further information regarding an incident previously notified to National Grid NTS; where such information (in the reasonable opinion of National Grid NTS) indicates that the forecasted system imbalance deficit has reduced to such an extent that a GBA is no longer required; or
- 2.—— The Industry has responded to the GBA to such an extent that the imbalance deficit no longer presents a risk to the safety of the system.

We believe that introducing the ability to withdraw a GBA may provide an improved signal to the market, thereby better informing the industry of the status of the system, through which Users may be better placed to appropriately respond to the system status.

To facilitate this objective, National Grid NTS propose the introduction of a GBA withdrawal Notice.

### **Suggested Draft Business Rules as follows;**

V5.9.5 Where a **Gas Deficit Warning** is issued, it shall remain in force until;

- a) National Grid NTS issues a GDW Withdrawal Notice where;
  - i) National Grid NTS determines that (in the reasonable opinion of National Grid NTS) the forecasted system imbalance deficit has reduced to the extent that it no longer presents a risk to system safety; or/and
  - ii) In the reasonable opinion of National Grid NTS, the Industry has responded to the GDW to such an extent that the imbalance deficit no longer presents an imminent risk to the EoD system balance or safety of the system.

### **3. GBA Trigger Methodologies**

Since the implementation of the Gas Balancing Alert into UNC in 2005, National Grid NTS has sought to improve the determination and methodology of both, the Day Ahead and Within Day, GBA triggers. National Grid NTS endeavours to provide the industry with an accurate and meaningful signal of the system status on days where a significant End of Day (EoD) supply/demand imbalance is forecasted.

As of part of the Proposal National Grid NTS proposes revisions to both trigger methodologies as follows:

**Day Ahead Trigger:** In order to deliver a meaningful Day Ahead signal the Gas Network Control Centre's (GNCC) application of GBA Day Ahead trigger methodology has evolved from that adopted upon the introduction of the GBA arrangements in 2005. The National Grid NTS therefore proposes to revise the UNC definition such that it provides greater clarity of the Day Ahead trigger methodology currently undertaken:

**Within Day Trigger:** In respect of the existing UNC Within Day trigger methodology a supply loss (>25mcm) remains the principle event upon which National Grid NTS may use its discretion to initiate its decision making procedures; and determine whether or not to issue a GBA. National Grid NTS believes that the current arrangements, in particular the single event of a >25mcm supply loss, is not sufficiently granular to cover all events which may trigger the issue of a Within day GBA. This proposal seeks to broaden the events through which the trigger for National Grid NTS GBA decision making procedures is initiated; such that both supply and demand events may constitute an event. Additionally National Grid NTS proposes greater discretion in the determination of whether or not to issue a GBA.

National Grid NTS notes that the 'GBA review' workgroup indicated that there maybe benefits in National Grid NTS having discretion in its decision making procedures for the issue, or not, of a GBA. The workgroup considered that any increased National Grid NTS discretion would require the publication of supporting information relating to the status of the system:

#### **3a. Day Ahead GBA**

##### **Forecast Total System Supply**

The current UNC trigger methodology for a D-1 GBA is determined through a prescribed process where the D-1 Total System Demand is assessed against a maximum Forecast Total System Supply for the coming gas day:

*UNC section V5.9.6 states:*

*"Forecast Total System Supply" means the anticipated maximum daily supply to the Total System for the Gas Flow Day in question incorporating only the sum of the quantity of gas that could be withdrawn in aggregate from relevant Storage Facilities and delivered to the Total System on such Gas Flow Day without breaching the Two Day Ahead Minimum Storage Deliverability Amount;*

0415  
Modification

---

31 March 2012

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Version 4.0

---

Page 13 of 27

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The existing Day Ahead GBA trigger methodology, currently applied by National Grid NTS, is not entirely aligned with UNC V5.9.6 provisions associated with 'Forecast Total System Supply'. The current GNCC methodology is initially based on a view of typical Non-Storage Supplies (NSS) at a particular demand level, currently 440mcm, as published externally within the Winter Outlook, along with a deliverability driven view of storage.

Storage deliverability is assessed daily following receipt of storage stock data. The NSS assumption begins in sync with the supply assumption published in the Winter Outlook document and is amended as required, based upon actual NSS performance during the Gas winter months.

Through the Transmission workgroup National Grid NTS has presented evidence that has illustrated the inaccuracy of shipper nominations, no terminal & storage nominations available for the 13:00 ahead demand forecast, and the day on day volatility of NSS supply. We believe that accurate day ahead supply forecasting is difficult to do, and is prone to error. Therefore we propose that in respect of the current D-1 GBA trigger level methodology, a view of typical winter supply on a high demand day, should continue to be used to trigger a Forecast Deficit Notification.

### **Proposed revision to D-1 GBA trigger**

For the purposes of the D-1 MN signal the day ahead signal process will remain mechanistic. The D-1 system imbalance trigger level will be assessed against day ahead demand forecasts (13:00, 16:00 and 00:00) as per UNC section H. If any day ahead demand forecast is greater than or equal to the D-1 System Imbalance trigger level, a MN will be issued (Only one notification will be issued per day).

Once issued the notification will remain in place until the end of the Gas Flow Day it is applicable, unless it is superseded by a Gas Deficit Warning (GDW).

### **Suggested Draft Business Rules**

Definition — **'Expected Available Supply'** is the sum of:

- (a) — The amount of gas that National Grid NTS anticipates being delivered onto the Total System (taking into consideration all information available to it) from time to time as published on its website; and
- (b) — The qualifying Storage Deliverability from relevant storage facilities over two (2) full Days at maximum withdrawal rates.

V5.9.3 — National Grid NTS shall issue (by means of publication on its website) an alert notification (a "Margins Notice" (**MN) Gas Balancing Alert**) where, after forecasting demand for a Gas Flow Day in accordance with Section H 5.2.3 and Section H5.2.4 on the Preceding Day, the Forecast Total System Demand for the Gas Flow Day in question is greater than or equal to the Expected Available Supply Forecast Total System Supply for such Gas Flow Day:

The MN will remain in place until the end of the Gas Flow Day to which it is applicable, unless superseded by a Gas Deficit Warning (GDW).

0415

Modification

31 March 2012

Version 4.0

Page 14 of 27

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### **3b. Within Day Trigger Methodology**

## Supply Trigger Only

As previously stated in section 2. 'Why Change?'; The prevailing trigger for a within day GBA is a supply loss ( $\geq 25\text{mcm}$ ). This can restrict the ability to issue a within GBA e.g. where a supply loss of less than  $25\text{mcm}$  may cause a system issue. We also note that currently no demand side trigger exists that can signal instances where a significant forecasted increase in demand is not met by forecasted EoD supplies, risking a significant system imbalance deficit.

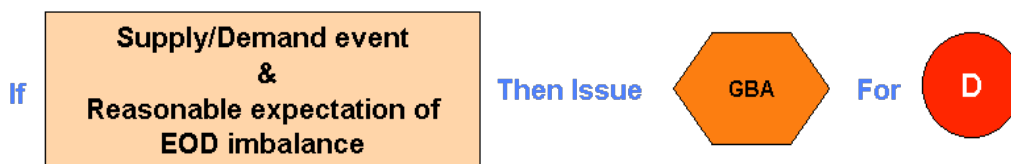
## Opening Linepack

National Grid NTS is mindful that in the determination of a GBA the opening position of system stock can influence GNCC decision making. For example, on a day where linepack opens at  $320\text{mcm}$  a loss of  $5\text{mcm}$  could cause difficulties, yet on a day where linepack opened at  $370\text{mcm}$ , a  $30\text{mcm}$  loss could, potentially, be absorbed.

## Proposed Within Day trigger methodology

This Proposal seeks to introduce a single level EoD GDW, similar to the existing Within Day GBA. However National Grid NTS proposes to introduce the ability to issue a GDW day ahead or within day should appropriate information be made available to the GNCC, or following either a supply or demand event that results in a forecast EoD system imbalance.

National Grid will provide additional information when publishing the GDW on the rationale for the publication e.g. forecast EoD imbalance greater than  $20\text{mcm}$ , or supply loss, or unexpected increase in demand.



## Timescale for issue of a GDW

It is taken as read that the accuracy of information available to National Grid NTS, for its determination of the forecasted system supply and demand position, improves the closer you get to the Gas Flow Day; this accuracy further improves during the Gas Flow Day. National Grid NTS believes that there may be instances, prior to entering the Gas Flow Day, where National Grid NTS becomes aware of reliable information, which represents an event that would trigger a Within Day Alert before the start of the Gas Flow Day. To ensure that the Within Day Alert is sufficiently flexible to accommodate such instances we propose that the GBA may be issued before the Gas Flow Day. National Grid NTS considers that this would allow shippers to appropriately respond to the Alert at the earliest opportunity. We note that any GBA issued before the day would be accompanied by supporting information provision, which may provide an indication of the level of deficit forecast and timescales within which response may be required.

—Draft UNC Text.

5.9.4 — National Grid NTS may issue (by means of publication on its website) a **Gas Deficit Warning (GDW)** where during or before a Gas Flow Day, an event affecting either supply or demand, for the Gas Flow Day in question, is notified to National Grid NTS that would (in the reasonable opinion of National Grid NTS) result in reduce the Forecast Total System Supply for that Gas Flow Day being less than by at least twenty five (25)

0415

Modification

31 March 2012

Version 4.0

Page 15 of 27

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MCM per Day and the remaining Forecast Total System Supply for that Gas Flow Day is less than or equal to the Forecast Total System Demand.

#### **4. Enhanced Information Provision**

The enhanced information provisions requirements, which may further support both the Notice and the Warning will be developed as an output of the working group discussions on this Proposal.

#### **Summary of Suggested Business Rules**

##### **Section V5.9 Operational and Market Data**

Definition — '**Expected Available Supply**' is the sum of:

- (a) — The amount of gas that National Grid NTS anticipates being delivered onto the Total System (taking into consideration all information available to it) from time to time as published on its website; and
- (b) — The qualifying Storage Deliverability from relevant storage facilities over two (2) full Days at maximum withdrawal rates.

5.9.3 — National Grid NTS shall issue (by means of publication on its website) notice (a "**Margins Notification (MN) Gas Balancing Alert**") where, after forecasting demand for a Gas Flow Day in accordance with Section H 5.2.3 and Section H5.2.4 on the Preceding Day, the Forecast Total System Demand for the Gas Flow Day in question is greater than or equal to the Expected Available Supply.

— The **MN** will remain in place until the end of the Gas Flow Day to which it is applicable, unless superseded by a Gas Deficit Warning (GDW).

5.9.4 — National Grid NTS may issue (by means of publication on its website and ANS) a **Gas Deficit Warning (GDW)** where during or before a Gas Flow Day, an event affecting either supply or demand, for the Gas Flow Day in question, is notified to National Grid NTS that would (in the reasonable opinion of National Grid NTS) result in the Forecast Total System Supply for that Gas Flow Day being less than the Forecast Total System Demand.

5.9.5 — Where a **Gas Deficit Warning** is issued, it shall remain in force until;

- a) — National Grid NTS issues a GDW Withdrawal Notice where;
  - i) — National Grid NTS determines that (in the reasonable opinion of National Grid NTS) the forecasted system imbalance deficit has reduced to the extent that it no longer presents a risk to system safety; or/and
  - ii) — The Industry has responded to the GDW to such an extent that the imbalance deficit no longer presents an imminent risk to the safety of the system.

##### **UNC Section D**

3.1.2 — Subject to paragraph 4.1.1, National Grid NTS may only enter into Non Trading System Transactions only in relation to a Gas Flow Day in respect of which a **Gas Deficit Warning** is in place.

0415

Modification

31 March 2012

Version 4.0

Page 16 of 27

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4.1.1—Where a User makes a Market Offer or a Non-Trading System Offer to National Grid NTS in relation to a Gas Flow Day in respect of which a **Gas Deficit Warning** is in place and up to six (6) subsequent consecutive Gas Flow Days.....'

## **Compliance with European Regulation**

'REGULATION (EU) No 994/2010 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL—concerning measures to safeguard security of gas supply and repealing Council Directive' was published on 20<sup>th</sup> October 2010.

The European Regulations identify a number of 'crisis levels' which the European council directive would expect to be in place to in order that risks associated with Security of Gas Supply within the respective Transportation systems are mitigated.

We consider that the proposed arrangements, combined with arrangements already in place (such as emergency procedures) comply with the measures set out in the European regulation Article 10—Emergency Plans and Crisis levels paragraph 3:

### ***'Article 10—Emergency Plans and Crisis Levels***

3.—*The three main crisis levels shall be as follows:*

- (a) — early warning level (early warning): when there is concrete, serious and reliable information that an event may occur which is likely to result in significant deterioration of the supply situation and is likely to lead to the alert or the emergency level being triggered; the early warning level may be activated by an early warning mechanism;*
  
- (b) — alert level (alert): when a supply disruption or exceptionally high gas demand occurs which results in significant deterioration of the supply situation, but the market is still able to manage that disruption or demand without the need to resort to non-market measures;*
  
- (c) — emergency level (emergency): in the event of exceptionally high gas demand, significant supply disruption or other significant deterioration of the supply situation and in the event that all relevant market measures have been implemented but the supply of gas is insufficient to meet the remaining gas demand so that non-market measures have to be additionally introduced with a view, in particular, to safeguarding supplies of gas to protected customers according to Article 8.'*

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:295:0001:0022:EN:PDF>

## 4 Relevant Objectives

Implementation is expected to better facilitate the achievement of **Relevant Objectives a and b.**

### Proposer's view of the benefits against the Code Relevant Objectives

Description of Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	Improved clarity of information relating to the status of the system during times of significant System supply/demand deficit will provide improved signals for Users response thereby better facilitating SLC 11 (a).
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.	As above
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.	None
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

### a) Efficient and Economic Operation of the Pipeline System

Improved clarity of information relating to the status of the system during times of significant System supply/demand imbalance will provide improved signals upon which Users may confidently take appropriate steps to mitigate a system issue and mitigate the risk of entering into a GDE, thereby better facilitating SLC 11 (a)

### 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.

Improved clarity of information relating to the status of the system during times of significant System supply/demand imbalance will provide improved market signals, helping Users to determine the appropriate steps to mitigate a system issue and mitigate the risk of entering into a GDE.

0415

Modification

31 March 2012

Version 4.0

Page 18 of 27

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## 5 Impacts and Costs

### Consideration of Wider Industry Impacts

The Proposer does not believe that this modification will have a wider industry impacts.

### Costs

Indicative industry costs – User Pays	
Classification of the proposal as User Pays or not and justification for classification	
National Grid NTS does not anticipate that any UK Link system changes will be required as a result of the implementation of this modification. The changes anticipated are likely to be achieved through revisions to operational procedures, replacing existing processes with revised arrangements; we therefore do not believe that this modification falls into the Users Pays classification.	
Identification of Users, proposed split of the recovery between Gas Transporters and Users for User Pays costs and justification	
N/A	
Proposed charge(s) for application of Users Pays charges to Shippers	
N/A	
Proposed charge for inclusion in ACS – to be completed upon receipt of cost estimate from Xoserve	
N/A	

### Impacts

Impact on Transporters' Systems and Process	
Transporters' System/Process	Potential impact
UK Link	<ul style="list-style-type: none"> <li>None anticipated</li> </ul>
Operational Processes	<ul style="list-style-type: none"> <li>Amendments to National Grid NTS operational procedures will be required</li> </ul>
User Pays implications	<ul style="list-style-type: none"> <li>None anticipated</li> </ul>

Impact on Users	
Area of Users' business	Potential impact
Administrative and operational	<ul style="list-style-type: none"> <li>Users may require revisions to operational procedures associated with responding to a revised system alerts.</li> </ul>
Development, capital and operating costs	<ul style="list-style-type: none"> <li>None anticipated</li> </ul>
Contractual risks	<ul style="list-style-type: none"> <li>None anticipated</li> </ul>
Legislative, regulatory and contractual obligations and relationships	<ul style="list-style-type: none"> <li>None anticipated</li> </ul>

0415  
Modification  
31 March 2012

Version 4.0

Page 19 of 27

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**Where can I find details of the UNC Standards of Service?**

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In the Revised FMR for Transco's Network Code Modification **0565 Transco Proposal for Revision of Network Code Standards of Service** at the following location:  
[www.gasgovernance.co.uk/sites/default/files/0565.zip](http://www.gasgovernance.co.uk/sites/default/files/0565.zip)

Impact on Transporters	
Area of Transporters' business	Potential impact
System operation	<ul style="list-style-type: none"><li>National Grid NTS anticipates that, if implemented, this proposal will improve the System Operators ability to manage days of significant system imbalance deficit.</li></ul>
Development, capital and operating costs	<ul style="list-style-type: none"><li>The proposed revision to the system alerts arrangements will be achieved through the development of revised operational procedures seeking to replace existing processes. We therefore anticipate minor development costs, but no additional operating costs.</li></ul>
Recovery of costs	<ul style="list-style-type: none"><li>None anticipated</li></ul>
Price regulation	<ul style="list-style-type: none"><li>None anticipated</li></ul>
Contractual risks	<ul style="list-style-type: none"><li>None anticipated</li></ul>
Legislative, regulatory and contractual obligations and relationships	<ul style="list-style-type: none"><li>None anticipated</li></ul>
Standards of service	<ul style="list-style-type: none"><li>None anticipated</li></ul>

Impact on Code Administration	
Area of Code Administration	Potential impact
Modification Rules	<ul style="list-style-type: none"><li>None anticipated</li></ul>
UNC Committees	<ul style="list-style-type: none"><li>None anticipated</li></ul>
General administration	<ul style="list-style-type: none"><li>None anticipated</li></ul>

Impact on Code	
Code section	Potential impact
Section V5.9 Operational and Market Data	<ul style="list-style-type: none"><li>Code revision required</li></ul>
	<ul style="list-style-type: none"><li></li></ul>

Impact on UNC Related Documents and Other Referenced Documents	
Related Document	Potential impact

Impact on UNC Related Documents and Other Referenced Documents	
Network Entry Agreement (TPD I1.3)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Network Exit Agreement (Including Connected System Exit Points) (TPD J1.5.4)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Storage Connection Agreement (TPD R1.3.1)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
UK Link Manual (TPD U1.4)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Network Code Operations Reporting Manual (TPD V12)	<ul style="list-style-type: none"> <li>•</li> </ul>
Network Code Validation Rules (TPD V12)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
ECQ Methodology (TPD V12)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Measurement Error Notification Guidelines (TPD V12)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Energy Balancing Credit Rules (TPD X2.1)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Uniform Network Code Standards of Service (Various)	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>

Impact on Core Industry Documents and other documents	
Document	Potential impact
Safety Case or other document under Gas Safety (Management) Regulations	<ul style="list-style-type: none"> <li>• No safety case change would be required as a result of this Proposal. It is anticipated that the revision of system alerts arrangements will provide improved signals to inform shippers to initiate responses that may help to avoid further deterioration of the system, and therefore avoid entering into the stage 1 of a GDE. During the Ofgem SCR Cash out Reform consultation, the HSE stated that it welcomed clearer GBA signals to help avoid further deterioration of the system.</li> </ul>
Gas Transporter Licence	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>

Other Impacts	
Item impacted	Potential impact

Security of Supply	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Operation of the Total System	<ul style="list-style-type: none"> <li>• National Grid NTS anticipates that, if implemented, this proposal will provide users with improved D-1 and within day information, such that they may take steps to respond to a system supply/demand deficit, we anticipate that this will facilitate improved efficiency in the operation of the Total System.</li> </ul>
Industry fragmentation	<ul style="list-style-type: none"> <li>• None anticipated</li> </ul>
Terminal operators, consumers, connected system operators, suppliers, producers and other non code parties	<ul style="list-style-type: none"> <li>• The introduction of improvements in the definition and status of the System Alerts brings the opportunity for Daily Read Customers and Shippers to agree contracts for demand side response when the system is forecast to be in deficit.</li> </ul>

## 6 Implementation

To be defined at the Workgroup.

0415

Modification

---

31 March 2012

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Version 4.0

---

Page 23 of 27

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## 7 The Case for Change

In addition to that identified the above, the Proposer has identified the following:

### Advantages

- Introduces more meaningful Signal which may more accurately reflect the status of the system.
- Introduces greater User confidence
- Provide greater clarity of the degree of User response required
- Compliant with European legislation
- May introduce risk mitigation of further deterioration of the system status

### Disadvantages

0415

Modification

---

31 March 2012

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Version 4.0

---

Page 24 of 27

---

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## 8 Legal Text

### Suggested Text

#### TPD Section D

Amend Section D as follows:

3.1.2 Subject to paragraph 4.1.1, National Grid NTS may only enter into Non-Trading System Transactions only in relation to a Gas Flow Day in respect of which a Gas ~~Deficit Warning~~~~Balancing-Alert~~ is in place.

...

4.1.1 Where a User makes a Market Offer or a Non-Trading System Offer to National Grid NTS in relation to a Gas Flow Day in respect of which a Gas ~~Deficit Warning~~~~Balancing-Alert~~ is in place and up to six (6) subsequent consecutive Gas Flow Days...

#### TPD Section V

Amend paragraph 5.9 as follows:

##### **5.9 Operational and Market Data**

5.9.1 Subject to the provisions of paragraph 5.9.2 and the other provisions of the Code, National Grid NTS shall arrange for the data referred to in Annex V-1, ("**Operational and Market Data**") to be published or made available in the manner specified in Annex V-1.

5.9.2 National Grid NTS shall not be obliged to publish or make available operational and market data pursuant to paragraph 5.9.1 where that data is not available to National Grid NTS.

5.9.3 National Grid NTS shall issue (by means of publication on its website) a ~~notice an alert~~ (a "**Margins Notice**" "~~Gas-Balancing-Alert~~") where, after forecasting demand for a Gas Flow Day in accordance with Section H5.2.3 and Section H5.2.4 on the Preceding Day, the Forecast Total System Demand for the Gas Flow Day in question is greater than or equal to the ~~Expected Available Supply Forecast Total System Supply~~ for such Gas Flow Day.

5.9.4 Where a Margins Notice is issued, it shall remain in force until the end of the Gas Flow Day to which it is applicable, unless superseded by a Gas Deficit Warning.

~~5.9.4~~5.9.5 National Grid NTS may issue (by means of publication on its website) a ~~warning~~ ("**Gas Deficit Warning**")~~Gas-Balancing-Alert~~ where during or before a Gas Flow Day, an ~~event affecting either supply or demand, for the Gas Flow Day in question~~~~incident~~ is notified to National Grid NTS, ~~or National Grid NTS otherwise becomes aware of circumstances, that may~~~~might~~~~would~~ (in the reasonable opinion of National Grid NTS) ~~reduce~~~~result in the quantities of gas on the Total System being insufficient for the purpose of meeting the Forecast Total System Supply for that Gas Flow Day being by at least twenty five (25) MCM per Day and the remaining Forecast Total System Supply for that Gas Flow Day is for equal to the Forecast Total System Demand.~~

5.9.5.9.6 Where a Gas ~~Deficit Warning~~~~Balancing-Alert~~ is issued, it shall remain in force until National Grid NTS issues a GDW Withdrawal Notice~~the end of the~~

0415

Modification

31 March 2012

Version 4.0

Page 25 of 27

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Gas Flow Day to which it applies.

5.9.65.9.7

For the purposes of the Code:

~~a) "Forecast Total System Supply" means the anticipated maximum daily the sum of the quantity of gas that could be withdrawn in aggregate from relevant Storage Facilities and delivered to the Total System on such Gas Flow Day without breaching the Two Day Ahead Minimum Storage Deliverability Amount; and~~

(a) **"Expected Available Supply"** shall mean the sum of:

(i) the amount of gas that ~~NG National Grid NTS anticipates being expected to be~~ reasonably expects could be delivered other than from Storage Facilities as published in the National Grid Winter Outlook Report as published at onto the Total System from non-storage sources (taking into consideration all information available to it) from time to time as published on its website; and

(ii) the qualifying Storage Deliverability from relevant Storage Facilities over two (2) full Days at maximum withdrawal rates;

(b) **"Two Day Ahead Minimum Storage Deliverability Amount"** means, a quantity of gas from the Safety Monitor for all Storage Facility Types that could be withdrawn from all relevant Storage Facility Types in two (2) Days at their respective maximum withdrawal rates; ~~and~~

(c) **GDW Withdrawal Notice**" means a notice from National Grid NTS issued where National Grid NTS determines (in its reasonable opinion) that:

(i) there is no longer an actual or imminent risk to system safety; or

~~(ii) circumstances in which the quantities of gas on the Total System will be insufficient for the purpose of meeting the Forecast Total System Demand have ceased to exist.~~

For the purposes of this paragraph a Storage Facility will be a **"relevant"** Storage Facility if (i) it is a Storage Facility whose deliverability and/or storage space National Grid NTS has used in the calculation of the Safety Monitor and (ii) the quantity of gas stored in that Storage Facility and available for withdrawal is greater than or equal to the quantity of gas that could be withdrawn from that Storage Facility in two (2) Days at its maximum withdrawal rate.

0415

Modification

31 March 2012

Version 4.0

Page 26 of 27

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## 9 Recommendation

The Proposer invites the Panel to:

- DETERMINE that Modification 0415 progresses to Workgroup.

0415

Modification

31 March 2012

Version 4.0

Page 27 of 27

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