

**CODE MODIFICATION PROPOSAL No 0257**  
**Revision of the Gas Balancing Alert (GBA) Trigger/Safety Monitor**  
**Version 2.0**

**Date:** 17/07/2009

**Proposed Implementation Date:** October 2009

**Urgency:** Non Urgent

**1 The Modification Proposal**

**a) Nature and Purpose of this Proposal**

**Background to the Proposal**

The Gas Balancing Alert (GBA) was introduced in the winter of 2005/06 as a result of the implementation of Modification Proposal 061 – ‘Facilitating further Demand-side response in the event that a Gas Balancing Alert is triggered’ following discussion and development by the industry through the Ofgem-chaired Demand-Side Working Group.

The primary objective of the GBA was to provide a signal to the market that demand-side reduction and/or additional supplies may be required to avoid the risk of entering into a Network Gas Supply Emergency. The calculation for setting the GBA “trigger” is based on a combination of the projected available daily supplies and daily forecast demand and, the impact of a potential breach of the Safety Monitor.

In May 2009, National Grid NTS, under its obligations within UNC Section Q 5.2, issued its proposed revisions<sup>1</sup> in the use and publication of the Safety Monitor whereby a single aggregated figure would be utilised, covering all storage facilities with two or more days of deliverability, rather than multiple monitor levels covering each different Storage Facility Type (short, medium and long range storage).

The purpose of the Safety Monitor is primarily to ensure that sufficient gas is held in storage, for the duration of the Winter, which might be required to support those gas consumers that cannot be physically and verifiably isolated from the gas network within a reasonable time period under Network Gas Supply Emergency conditions.

As a result of ongoing industry discussions associated to security of supply, National Grid NTS considered that it would be helpful to undertake presentations to the Operational Forum (June 2009) and the Transmission Workstream (June 2009), regarding potential changes to the Safety Monitor methodology and the role of the GBA.

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<sup>1</sup> <http://www.gasgovernance.com/Publications/SafeMons/> Preliminary Safety and Firm Monitor Requirements 2009/10

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National Grid NTS advised that the intention of the proposed changes to the Safety Monitor methodology was to improve security of supply whilst at the same time, facilitating improved transparency and enhanced information provision to the market.

The revisions to the Safety Monitor methodology sought to;

- Apportion operational storage Space equitably across all Storage sites, including those with high cycling rates, rather than apportioning over the historically determined three storage types, Long, Medium and Short range storage.
- Retain the prevailing determination of storage Space requirements but make the deliverability requirement more visible.
- Group all storage types/facilities such that one aggregated monitor for Space and one aggregate monitor for Deliverability was determined.

During these presentations, National Grid NTS indicated that it believed it would be necessary to amend the prevailing GBA calculation to ensure that it reflected the revised Safety Monitor methodology. We believe that the revisions put forward within this Proposal would align the derivation of the GBA trigger with the revised Safety Monitor methodology.

### **Nature of the Proposal**

This Modification Proposal seeks to:-

1. For the purposes of calculating the GBA trigger;
  - Use the new aggregated Safety Monitor deliverability figures as part of the GBA calculation.
  - Revise the GBA storage Deliverability amount to one component which is based on an aggregate of the **Two Day Ahead Minimum Storage Deliverability Amount** as defined in UNC for all storage sites, capable of providing such deliverability, rather than by individual Storage Facility Types.
2. Safety Monitor
  - Move to a single, aggregated Safety Monitor (of all Storage Facility Types) with two or more days of deliverability.

This Proposal, if implemented, will revise the GBA calculation within TPD Section V 5.9.6 and the Safety Monitor calculation defined within the TPD Section Q.5.1.1 (f); such that all storage sites with 2 or more days of deliverability are included in the GBA trigger rather than being categorised as separate Storage Facility Types e.g. Long Range (LRS), Medium Range (MRS) and Short Range (SRS).

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We believe that this change may improve the clarity and operation of the GBA and thus may provide the market with an improved opportunity to understand and respond to potential supply/demand issues.

For clarity, we have provided an example with this Proposal that outlines the prevailing and proposed GBA arrangements (please see Appendix A).

Version 2.0 (varied) 14.07.2009:

After careful consideration of comments recently received, National Grid NTS has agreed to amend the suggested legal text. National Grid NTS believes that the amendments are non-material and do not change the intent nor the purpose of this Proposal. We do however believe that the suggested legal text amendments would provide greater clarity to the market.

Please note that the proposed change in UNC Section Q.5.2.7 (a) i.e. from weekly to daily reporting; National Grid NTS already publishes this information on a daily basis; this change is aligning the UNC to the operational activity.

- b) **Justification for Urgency and recommendation on the procedure and timetable to be followed (if applicable)**

N/A

- c) **Recommendation on whether this Proposal should proceed to the review procedures, the Development Phase, the Consultation Phase or be referred to a Workstream for discussion.**

National Grid NTS presented its revisions to the Safety Monitor at the Transmission Workstream in June 2009. As part of this presentation we highlighted our intention to amend the GBA trigger calculation such that it reflects the revisions to the Safety Monitor. We believe the changes Proposed have been sufficiently debated with the industry and that it is now appropriate to recommend that this Proposal proceeds direct to consultation.

## 2 User Pays

- a) **Classification of the Proposal as User Pays or not and justification for classification**

We do not believe that this Proposal falls within the remit of a User Pays Modification. Therefore no justification has been provided.

- b) **Identification of Users, proposed split of the recovery between Gas Transporters and Users for User Pays costs and justification**

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- c) **Proposed charge(s) for application of Users Pays charges to Shippers**  
N/A
- d) **Proposed charge for inclusion in ACS – to be completed upon receipt of cost estimate from xoserve**  
N/A

**3 Extent to which implementation of this Modification Proposal would better facilitate the achievement (for the purposes of each Transporter’s Licence) of the Relevant Objectives**

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

We believe that if implemented this Proposal will provide improvements to the GBA trigger calculation. We consider that revising and aligning the GBA trigger and Safety Monitor calculations such that they reflect the revisions to the Safety Monitor methodology will provide a more accurate representation of the Total System status. In particular it may provide greater clarity of the remaining storage position and therefore provide the industry with increased transparency of supply/demand assumptions, and storage stocks through the year. We believe that this may provide the industry and the system operator with better signals which may facilitate improvements in decision making processes associated with any market responses required to alleviate any risk associated with the potential for a Gas Deficit Emergency. We believe that this Proposal demonstrates economic and efficient improvements associated with the safe operation of the system.

***Standard Special Condition A11.1 (d): so far as is consistent with subparagraph (a) to (c) the securing of effective competition between shippers, suppliers and DN operators:***

We believe that aligning the GBA trigger and Safety Monitor calculations with the revised Safety Monitor methodology provides greater clarity and consistency, which may assist Users in their decision making when determining whether to place supply side-offers or demand-side response on to the market. We believe that improvements in the method of calculating the GBA trigger and Safety Monitor may reduce the potential for responses resulting from a GBA being called unnecessarily. This Proposal may demonstrate an improvement in securing effective competition between Shippers, as responses should only be alerted when required and therefore it is anticipated that unnecessary costs resulting from such market activity will be minimised.

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

Aligning the derivation of the GBA trigger and the Safety Monitor with the revised Safety Monitor methodology may provide a more reflective status of

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the system during a day with an increased Supply/Demand margin. We anticipate that these proposed revisions to the GBA trigger and the Safety Monitor will provide the market and the System Operator with an improved indicator through it which we may respond and manage the safe operation of the system.

**5 The implications for Transporters and each Transporter of implementing this Modification Proposal, including:**

**a) The implications for operation of the System:**

We anticipate that this change will provide greater clarity in respect of operational decision making.

**b) The development and capital cost and operating cost implications:**

No such costs are anticipated.

**c) Whether it is appropriate to recover all or any of the costs and, if so, a proposal for the most appropriate way for these costs to be recovered:**

N/A

**d) The consequence (if any) on the level of contractual risk of each Transporter under the Uniform Network Code of the Individual Network Codes proposed to be modified by this Modification Proposal**

No such consequences are anticipated.

**6 The extent to which the implementation is required to enable each Transporter to facilitate compliance with a safety notice from the Health and Safety Executive pursuant to Standard Condition A11 (14) (Transporters Only)**

The proposed amendment to the GBA is not required as a result of any HSE standard condition.

**7 The development implications and other implications for the UK Link System of the Transporter, related computer systems of each Transporter and related computer systems of Users**

No such implications are anticipated.

**8 The implications for Users of implementing the Modification Proposal, including:**

**a) The administrative and operational implications (including impact upon manual processes and procedures)**

Users may be required to amend processes and procedure that are associated with their decision making and response to a GBA.

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**b) The development and capital cost and operating cost implications**

We are unaware of any such costs.

**c) The consequence (if any) on the level of contractual risk of Users under the Uniform Network Code of the Individual Network Codes proposed to be modified by this Modification Proposal**

We do not anticipate any such consequences.

**9 The implications of the implementation for other relevant persons (including, but without limitation, Users, Connected System Operators, Consumers, Terminal Operators, Storage Operators, Suppliers and producers and, to the extent not so otherwise addressed, any Non-Code Party)**

We do not anticipate that this Proposal, if implemented, will have any detrimental on other relevant persons.

**10 Consequences on the legislative and regulatory obligations and contractual relationships of the Transporters**

No such consequences are anticipated.

**11 Analysis of any advantages or disadvantages of implementation of the Modification Proposal not otherwise identified in paragraphs 2 to 10 above**

**Advantages**

- Provides greater clarity for market participants and operational decision making
- Greater clarity of the remaining storage position
- Increases the transparency of supply/demand assumptions

**Disadvantages**

None identified

**12 Summary of representations received as a result of consultation by the Proposer (to the extent that the import of those representations are not reflected elsewhere in this Proposal)**

None received

**13 Detail of all other representations received and considered by the Proposer**

None received

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**14 Any other matter the Proposer considers needs to be addressed**

None yet received

**15 Recommendations on the time scale for the implementation of the whole or any part of this Modification Proposal**

It is recommended that this Proposal be implemented by October 2009 inline with the implementation of the revised derivation of the Safety Monitor and in readiness for the Winter 2009/10.

**16 Comments on Suggested Text**

None

**17 Suggested Text**

**Draft Suggested Text**

**Q.5 SAFETY MONITOR AND FIRM GAS MONITOR**

5.1 Introduction

5.1.1 For the purposes of paragraph 5:

(a) "Annual Firm Severe Demand" means that element of the 1-in-50 Severe Annual Demand which is attributable to all Firm Supply Points;

(b) "Annual NDM/Priority Severe Demand" means the element of the 1-in-50 Severe Annual Demand which is attributable to those Supply Points identified in the National Grid Safety Case as being 'protected by monitor';

(c) "Firm Gas Monitor" means, for each day of the Winter Period and all Storage Facility Types, the Stored Firm Gas Requirement allocated in aggregate to all Storage Facility Types by National Grid NTS;

(d) "Peak Firm Demand" means the peak day demand at Firm Supply Points;

(e) "Peak NDM/Priority Demand" means the peak day demand at those Supply Points identified in the National Grid Safety Case as being 'protected by monitor';

(f) "Safety Monitor" means, for each day of the Winter Period and all Storage Facility Types, the Stored Safety Gas Requirement allocated in aggregate to all Storage Facility Types in accordance with the principles set out in the National Grid Safety Case, together with an amount of gas for all Storage Facility Types to permit the safe shutdown of those Supply Points not identified in the National Grid Safety Case as being 'protected by monitor';

(g) "Storage Facility Type" means one of the types (as determined by National Grid NTS from time to time and notified to Users pursuant to paragraph 5.2.1(f)) of Storage Facility or (where the context requires) all Storage Facilities of such a type;

(h) "Storage Firm Deliverability Requirement" means the amount by which the

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Peak Firm Demand exceeds the maximum daily supply;

(i) "Storage Safety Deliverability Requirement" means the amount by which the Peak NDM/Priority Severe Demand exceeds the maximum daily supply;

(j) "Stored Firm Gas Requirement" means the amount (in kWh) by which the Annual Firm Severe Demand exceeds the maximum daily supply;

(k) "Stored Safety Gas Requirement" means the amount (in kWh) by which the Annual NDM/Priority Demand exceeds the level of demand equal to the maximum daily supply; and

(l) "National Grid Safety Case" means the safety case (in accordance with Regulation 2(5)) of National Grid NTS acting in its capacity as a gas transporter in relation to the NTS.

## 5.2 Information Requirements

5.2.1 National Grid NTS will by 31 May in each Gas Year, notify Users of preliminary details of the following in respect of the coming Winter Period:

(a) Stored Safety Gas Requirement;

(b) Storage Safety Deliverability Requirement;

(c) Stored Firm Gas Requirement;

(d) Storage Firm Deliverability Requirement;

(e) maximum daily supply; and

(f) the number and designation of Storage Facility Types, together with the classification criteria used in the determination of those Storage Facility Types and (where the classification criteria has changed from that used in respect of the previous Winter Period) details of any change to such classification criteria.

5.2.2 National Grid NTS will, by 31 May in each Gas Year, determine whether the available Storage Space and/or Storage Deliverability is in aggregate less than the quantities detailed in paragraph 5.2.1(a) to (d) and shall notify Users of any shortfall and the extent thereof. In this event, the Safety Monitor and the Firm Gas Monitor notified pursuant to paragraph 5.2.3 will reflect the available Storage Space and/or Storage Deliverability.

5.2.3 National Grid NTS will, by 1 October in each Gas Year, notify Users of final details of the items stated in paragraph 5.2.1 along with the Safety Monitor and the Firm Gas Monitor for each day of the coming Winter Period.

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of each Storage  
Facility Type

5.2.4 Calculations of available Storage Space and/or Storage Deliverability made pursuant to this paragraph 5 shall exclude:

(a) Storage Capacity booked by National Grid for Operating Margins Purposes; and

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operational and/or physical characteristics that would make use of their Storage Capacity and/or gas-in-storage inappropriate in the calculation of any of the information specified in paragraphs 5.2.1, 5.2.2 and/or 5.2.3.

5.2.5 National Grid NTS will throughout the Winter Period keep under review the information previously notified pursuant to paragraphs 5.2.1, 5.2.2 and/or 5.2.3, together with any information available to National Grid NTS in respect of its estimates of expected deliveries to or offtakes from the Total System, and may:

(a) reduce a Safety Monitor and/or a Firm Gas Monitor to reflect longer-term demand forecasts (for example, during the later Days of the Winter Period);

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(b) adjust a Safety Monitor and/or a Firm Gas Monitor to reflect the occurrence of severe weather; and

(c) increase or reduce (as the case may be) a Safety Monitor and/or a Firm Gas Monitor to reflect any material change in National Grid NTS's estimates of expected deliveries to or offtakes from the Total System.

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5.2.6 Where National Grid NTS undertakes any of the actions specified in paragraph 5.2.5, National Grid NTS will;

(a) in respect of any of the actions specified in paragraphs 5.2.5(a) to 5.2.5(b), notify Users of any material changes in the information previously notified pursuant to paragraphs 5.2.1, 5.2.2 and/or 5.2.3; and

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(b) in respect of any of the actions specified in paragraph 5.2.5(c), notify Users of the reasons for such action being taken.

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5.2.7 National Grid NTS will:

(a) notify Users, on a daily basis, of the aggregate physical gas-in-storage level (in kWh) in each Storage Facility Type; and

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(b) where National Grid NTS calculates that the aggregate physical gas-in-storage level in all Storage Facility Types exceeds the Safety Monitor by a quantity (in kWh) equal to or less than the Two Day Ahead Minimum Storage Deliverability Amount, notify Users of:

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(i) the quantity (in kWh) by which the physical gas-in-storage levels of all Storage Facility Types exceeds the Safety Monitor; and

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(ii) the sum of all Storage Withdrawal Nominations for all Storage Facility Types.

These physical gas-in-storage levels and the maximum withdrawal rate may reflect gas-in-storage and other information provided by the relevant Storage Operator(s), as well as Input and Output Nominations.

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5.2.8 National Grid NTS shall notify all Users of potential or actual breaches of either a Safety Monitor or a Firm Gas Monitor as a result of:

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(a) insufficient bookings of Storage Space and/or Storage Deliverability as notified to National Grid NTS by the relevant Storage Operator(s);

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(b) anticipated shortfall of gas-in-storage based upon current stock levels and the injection and withdrawal information notified to National Grid NTS by the relevant Storage Operator(s);

(c) Renominations or other relevant within day information.

## V. 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) 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.

5.9.4 National Grid NTS may issue (by means of publication on its website) a Gas Balancing Alert where during a Gas Flow Day, an incident is notified to National Grid NTS that would (in the reasonable opinion of National Grid NTS) reduce the Forecast Total System Supply for that Gas Flow Day by at least twenty five (25) 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.

5.9.5 Where a Gas Balancing Alert is issued, it shall remain in force until the end of the Gas Flow Day to which it applies.

5.9.6 For the purposes of the Code:

(a) "Forecast Total System Supply" means the anticipated maximum daily supply to the Total System for the Gas Flow Day in question plus 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

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

For the purposes of this paragraph a Storage Facility will be a "relevant" Storage Facility if it is a Storage Facility whose deliverability and/or storage space National Grid NTS has used in the calculation of the Safety Monitor.

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**Code Concerned, sections and paragraphs**

Uniform Network Code

Transportation Principal Document

**Section(s)** Sections Q and V - please see Section 17 Suggested Text for details

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and V5.9.6

**Proposer's Representative**

*Name (Organisation)* Claire Thorneywork

**Proposer**

*Name (Organisation)* Steve Pownall

Appendix A: Gas Balancing Alert/Safety Monitor – example

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**TPD Section Q**

*Amend paragraph 5.1.1 (f) to read as follows;*

**“Safety Monitor”** means, for each day of the Winter Period and all Storage Facility Types, that portion of the Stored Safety Gas Requirement allocated in aggregate to all Storage Facility Types in accordance with the principles set out in the National Grid Safety Case, together with an amount of gas for all Storage Facility Types to permit the safe shutdown of those Supply Points not identified in the National Grid Safety Case as being ‘protected by monitor’.

**TPD Section V**

*Amend paragraph 5.9.6 to read as follows;*

“5.9.6 For the purposes of the Code:

- (a) **“Forecast Total System Supply”** means the anticipated maximum non-storage daily supply to the Total System for the Gas Flow Day in question plus 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
- (b) **“Two Day Ahead Minimum Storage Deliverability Amount”** means a quantity of gas from the aggregate Safety Monitor for all Storage Facility Types that could be withdrawn from all relevant Storage Facilities in two (2) Days at their respective maximum withdrawal rates.

For the purposes of this paragraph a Storage Facility will be a “relevant” Storage Facility if it is a Storage Facility whose deliverability and/or storage space National Grid NTS has used in the calculation of the Safety Monitor for the Storage Facility Type in which that Storage Facility falls.”

*Amend Annex V-1 by adding the following as a new row to the bottom of the existing table:*

For each of the five (5) Gas Flow Days immediately following the Day, the difference between National Grid NTS’s estimate of Forecast Total System Supply and National Grid NTS’s estimate of aggregate demand on the Total System.	By 14:00 hours on each Day	Tabular	Viewable	Public
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