

## Stage 03: Report to the Authority

### Grid Code

# GC0093 – Assessment of System Warnings

What stage is this document at?

01 Workgroup Report

02 Industry Consultation

03 Report to the Authority

This proposal seeks to modify the Grid Code to make a change to the name of a Notice of Inadequate System Margin (NISM) as part of a wider work package (outside the Grid Code) designed to provide clarity to system warning hierarchy and protocols.

The purpose of this document is to assist the Authority in its decision of whether to implement the proposed Grid Code Modification.

**Published on:** 19/08/2016



**National Grid recommends:**

GC0093 should be implemented as it better facilitates applicable Grid Code objectives (i) (ii) (iii) and (iv)



**High Impact:**

None identified



**Medium Impact:**

System Operator



**Low Impact:**

Generators, Transmission Owners, DNOs

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### Any Questions?

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Proposer:

**National Grid**

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## About this document

This document is the Report to the Authority for GC0093, which contains the responses to the Industry Consultation and the National Grid recommendation. The purpose of this document is to assist the Authority in their decision whether to implement the GC0093 proposed changes.

The revisions to the Grid Code proposed by National Grid and sent to the Authority require approval by that body and will, if approved, come into force on such date (or dates) of which Authorised Electricity Operators will be notified by National Grid, in accordance with the Authority's approval.

## Document Control

Version	Date	Author	Change Reference
0.1	09 August 2016	National Grid	Draft Report to the Authority
1.0	18 August 2016	National Grid	Final Report to the Authority

GC0093 Report to the Authority

09/08/2016

Version 1.0

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## 1 Executive Summary

- 1.1 National Grid in their role as the GB System Operator can issue a range of National Electricity Transmission System Warnings, as defined in the Grid Code, to alert the market to specific anticipated system conditions.
- 1.2 The first level of these warnings is a NISM (Notice of Inadequate System Margin) which is issued by National Grid when they consider that the predicted margin between demand and available generation should be greater. A NISM is simply a signal to the market to provide more power or reduce demand and is not indicative of an imminent power shortage.
- 1.3 To make this clearer, but also to account for recent developments in the electricity market, the following proposals were considered:
  - Change the name of 'NISM' to '**Electricity Margin Notice**' in the Grid Code, to make it clearer that these are just a signal to the market rather than signifying an imminent event. This would also align with an equivalent 'Gas Margin Notice' warning
  - Reconsider the triggers for and gradations of warnings to be issued in winter 2016/17, particularly considering interactions with long notice Supplemental Balancing Reserve plant dispatches
  - Consider the interaction between the system of existing Grid Code warnings and the new CAPACITY MARKET NOTICES under the Capacity Market rules and regulations which will go live by winter 2017/18.
- 1.4 GC0093 Assessment of System Warnings was proposed by National Grid and submitted to the Grid Code Review Panel for their consideration on 18<sup>th</sup> May 2016. The Panel determined that the proposal should progress to Industry Consultation.
- 1.5 An Industry Consultation was published on 8<sup>th</sup> July 2016 for 20 business days. Four responses were received; two of the responses were supportive of the Grid Code change whilst the other two responses did not think that the change would better facilitate the Grid Code objectives.

### National Grid Recommendation

- 1.6 National Grid supports the GC0093 proposed name change of 'Notice of Inadequate System Margin' (NISM) to 'Electricity Margin Notice' as it better facilitates the applicable Grid Code Objectives (i) (ii) (iii) and (iv).
- 1.7 This is achieved by making it easier for National Grid to manage expectations around the event whilst also having the benefit to both system stability, as well as National Grid's stated aim of encouraging further use of Demand Side Response as a normal activity.

## 2 Why Change?

- 2.1 The Grid Code defines a number of National Electricity Transmission System Warnings that can be issued by National Grid Electricity Transmission (NGET) to Users in accordance with OC7.4.8.2, which provide information relating to System conditions or Events and are intended to:
- alert Users to possible or actual Plant shortage, System problems and/or Demand reductions;
  - inform of the applicable period;
  - indicate intended consequences for Users; and
  - enable specified Users to be in a state of readiness to receive instructions from NGET.

- 2.2 The Grid Code system warnings are as follows:

**Inadequate System Margin** - A warning issued by NGET, in accordance with OC7.4.8.5, which is intended to alert recipients of an inadequate System Margin and which if not improved may result in Demand reduction being instructed.

**High Risk of Demand Reduction** - A warning issued by NGET, in accordance with OC7.4.8.6, which is intended to alert recipients that there is a high risk of Demand reduction being implemented and which may normally result from an inadequate System Margin.

**Demand Control Imminent** - A warning issued by NGET, in accordance with OC7.4.8.7, which is intended to provide short term notice, where possible, to those Users who are likely to receive Demand reduction instructions from NGET within 30 minutes.

**Risk of System Disturbance** - A warning issued by NGET, in accordance with OC7.4.8.8, which is intended to alert Users of the risk of widespread and serious System disturbance which may affect Users.

- 2.3 A NISM (Notification of Inadequate System Margin), being the first stage of margin warning available to NGET, will typically be issued up to a day ahead of when additional power is required with the most likely scenario being to cover the ensuing evening peak in demand.

- 2.4 The Grid Code sets out that a NISM will be issued subsequent to monitoring that will commence at 1200 hours each day in relation to the following Operational Day. In making this assessment the generation available in the Balancing Mechanism is weighed against the forecast demand to see whether the anticipated level of the System Margin for any period is insufficient.

- 2.5 The most recent uses of a NISM were on 9th May 2016, and before that November 4th 2015. May 9th saw a day of sustained Generation losses and 1500MW of capacity was requested between 19:00 and 21:30 that evening. The NISM on November 4th 2015 occurred on the third consecutive day of cold weather and again was a result of multiple plant breakdowns. An additional 500MW of capacity was requested between 16:30 and 18:30 on that evening. On both occasions the market responded as expected resulting in the NISM being cancelled without the need for further action. The 9 May 2016 fax as sent to industry is included in this consultation under annex 2 along with the template used to also inform industry through the BMRS.

- 2.6 Prior to these events NISMs were issued in February 2012, and before that on one occasion in 2009. Historically NISMs were more frequent with 8 having been issued in 2008 and a high of 39 in 2000. Although part of the standard toolkit for system operation, the use of NISMs may therefore now be less familiar.
- 2.7 The response to a NISM is usually that more plant is made available within the Balancing Mechanism and that existing plant runs more reliably, thus averting any need for further action. This is borne out by historical records which show that the next stage of warning, a High Risk of Demand Reduction (HRDR), has been issued on only two occasions since 2008, both of which were in fact associated with very significant in-day plant breakdowns which could not have been planned for or anticipated and had not been preceded by a NISM, and on a total of 13 occasions since 1995 compared to 139 NISMs.

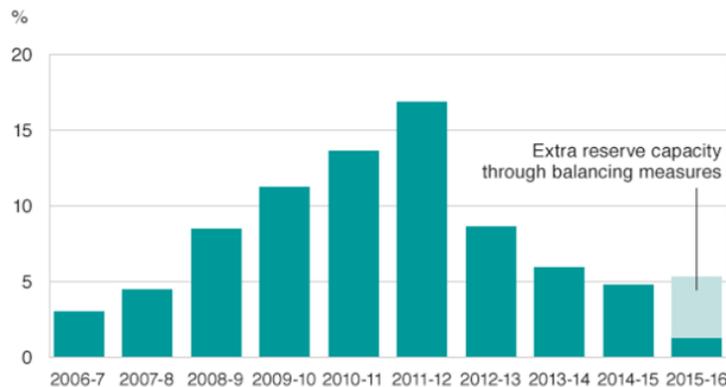


Fig 1 – Spare GB generation capacity at winter peak 2006-16

- 2.8 As shown in figure 1, plant margin from 2015 has been supported by the introduction of the Demand Side Balancing Reserve and Supplemental Balancing Reserve products, which support National Grid in balancing the system when all commercial actions have been exhausted (SBR is targeted at generators who would otherwise be closed, mothballed or generally unavailable).
- 2.9 SBR is only required for one remaining winter, 2016/17, before being replaced by the capacity market. Other than in an emergency situation, SBR plant will only be run following the issuing of a NISM. A further signal will though be given to the market when warming of SBR plant takes place through the System Operator Notification and Reporting package (SONAR), which emails registered users when plant is warmed (the category is called BM start up). It is also intended to issue a Balancing Mechanism Reporting Service (BMRS) message to the market when SBR plant is warmed.

## Development of proposals

- 2.10 A draft issue paper regarding these proposals was first discussed at the March 2016 meeting of the Grid Code Review Panel which recommended that the issue be taken to the Grid Code Development Forum for a more detailed discussion. The issue paper presented to the GCRP and duly to the GCDF in April 2016 is included as annex 3 to this paper. A draft of the consultation as was subsequently developed was then presented to the GCRP in May 2016.

## 3 Solution

- 3.1 National Grid proposes that the NISM is renamed as an '**Electricity Margin Notice**'.
- 3.2 The benefits of changing the name are that:
- This provides clarity around the hierarchy and protocols of system notices for winter 2016/17 onwards, when new participants will be operating in the market with the introduction of the Capacity Market Transitional Arrangements.
  - It is consistent with, but distinct from, equivalent 'Gas Margin Notices'
  - The use of more representative wording reduces the likelihood of misinterpretation
- 3.3 Unfamiliarity with the revised term has been mitigated to an extent already through several discussions with Grid Code stakeholders. This will be supplemented with further external communications with the wider industry should a change be made.

### CAPACITY MARKET NOTICES

- 3.4 The Capacity Market is intended to ensure security of electricity supply by providing a payment for reliable sources of capacity. When plant that has been successful in the capacity market auction is called on it will be subject to financial penalty if it is unable to do so; CAPACITY MARKET NOTICES will be issued 4 hours ahead of real time to alert providers that a system stress event is ensuing which will be likely to result in the requirement for them to provide the capacity agreed. CAPACITY MARKET NOTICES will be issued for the first time in winter 2016/17 with the introduction of the Transitional Arrangements. The capacity market will go live fully in time for winter 2017/18 at which point it will also replace the need for SBR plant.
- 3.5 Consideration was given to whether CAPACITY MARKET NOTICES should be written into the Grid Code. This was discounted as:
- 3.5.1 The Capacity Market is a commercial arrangement and notices under this are for commercial rather than technical reasons and are aimed at a subset of Users being those that are participating in the capacity market rather than to all BM participants.
- 3.5.2 A NISM could be issued in the same time frame of 4 hours ahead as a capacity market notice. While the calculations leading to a NISM or capacity market notice are separate, potentially putting two Grid Code warnings out at the same would not add value.
- 3.5.3 Any operational changes deemed necessary would be more complex to deliver as two change processes (the Capacity Market Rules and the Grid Code) would need to be negotiated.
- 3.6 National Grid intends to provide detailed information to industry over summer 2016 on the automatic decision process that will be followed when CAPACITY MARKET NOTICES are issued and how they will interact with other system messages.

## 4 Summary of Discussions

- 4.1 The GC0093 proposals were raised and discussed at length at multiple Grid Code Review Panel meetings (March, May and July 2016), as well as a brief discussion at the Grid Code Development Forum in April. Possible changes were also raised in discussion at the Electricity Operational Forum in June.
- 4.2 We therefore believe the industry has had sufficient opportunities to discuss this change, to raise queries or concerns, and to steer the outcomes via the recent consultation process.
- 4.3 These multiple discussions are likely to have contributed to the relatively low volume of consultation responses from industry. The simple nature of the proposed change is also a likely factor.
- 4.4 To confirm, there was no industry workgroup convened to discuss GC0093 issues or proposals.

Timeline of Events	
<b>16<sup>th</sup> March 2016</b>	Initial discussion of outline issue paper at GCRP.
<b>14<sup>th</sup> April 2016</b>	Discussed at GCDF
<b>18<sup>th</sup> May 2016</b>	Draft consultation presented to GCRP
<b>8<sup>th</sup> July 2016</b>	Industry consultation published
<b>20<sup>th</sup> July 2016</b>	Final discussion at GCRP
<b>5<sup>th</sup> August 2016</b>	Industry consultation closed

## 5 Impact & Assessment

### Impact on the Grid Code

- 5.1 GC0093 requires amendments to the following clauses of the Grid Code:
- Glossary and Definitions (GD)
  - Operating Conditions OC7.4.8.4, OC7.4.8.5, OC7.4.8.6, OC7.4.8.6.1, OC7.4.8.10, OC7 Appendix 1
  - Balancing Conditions BC1.5.4
- 5.2 The legal text required to give effect to the proposal is contained in Annex 1 of this document.

### Impact on National Electricity Transmission System (NETS)

- 5.3 The proposed changes will have a positive impact on the Transmission System in terms of giving a clearer signals to market within the range of system warnings as will be applicable from winter 2016/17 onwards.

### Impact on Greenhouse Gas emissions

- 5.4 The proposed changes will have a neutral impact on Greenhouse Gas Emissions.

### Impact on core industry documents

- 5.5 The proposed modification only requires changes to the Grid Code.

### Impact on other industry documents

- 5.6 The proposed modification would need to be reflected in the SBR Operational Methodology and also the Balancing Principles Statement.

### Assessment against Grid Code Objectives

- 5.7 National Grid considers that GC0093 will better facilitate the Grid Code objective:

- (i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;

*The solution will facilitate better clarity to market and wider stakeholders of the system of warnings that will be available from winter 2016/17. By understanding the warnings, the market will be in a far better place to respond, allowing the SO to operate the system more efficiently and competitively.*

- (ii) to facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the National Electricity Transmission System being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);

*Greater clarity should improve the efficiency and volume of responses from the market, particularly as new participants will be involved in winter 2016/17.*

- (iii) subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the National Electricity Transmission System operator area taken as a whole; and

*These proposals will encourage a better level of response from the market when/if additional support is needed. Therefore these are important in ensuring security of supply and efficiency of the system.*

- (iv) to efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency.

*These changes support the objective of maintaining a secure electricity system, complementing indirectly the strategic objectives of Third Energy Package legislation.*

## Implementation

- 5.8 National Grid proposes that GC0093 should be implemented 10 business days after an Authority decision.

## 6 Consultation Responses

6.1 An industry consultation was published on the 8 July 2016 and closed on 5 August 2016. 4 responses were received during the consultation period.

6.2 The table below provides an overview of the responses received. Full responses are included in Annex 3.

Ref	Party	Supportive?	Comments
CR-01	E.ON Group (Uniper)	Neutral/No	<ul style="list-style-type: none"> <li>Not clear how the proposal better facilitates the applicable Grid Code Objectives</li> <li>There is a risk that the change in name of this System Warning removes industry familiarity with this term</li> <li>This has implications for system operation and security of supply</li> <li>We will incur a small cost to update IT systems to pick up the change in name of the System Warning</li> </ul>
CR-02	RWE Supply & Trading GmbH	Neutral	<ul style="list-style-type: none"> <li>We do not object to the proposed Grid Code change</li> <li>We are not convinced that the proposed name change of such warnings would better facilitate the Grid Code objectives, without any accompanying material change to the content.</li> <li>Given that the “Electricity Margin Notice” will be issued as a National Electricity System Warning, the 2nd reference to “Electricity” in the title would appear superfluous and inconsistent with other NETS warnings.</li> <li>Irrespective, using the title “System Margin Notice” would be more consistent and meaningful.</li> </ul>
CR-03	Scottish Power Generation	Yes/No	<ul style="list-style-type: none"> <li>Believes that GC0093 better facilitates the applicable Grid Code Objectives</li> <li>However the proposed text in BC1.5.4 (h) does not match all the other changes i.e. the term “Inadequate System Margin” has been change to “System Margin Notice – Electricity” and not “Electricity Margin Notice”.</li> </ul>
CR-04	UK Power Reserve	Yes	<ul style="list-style-type: none"> <li>We would support the intent behind the proposal on grounds that it is beneficial to both the National Grids system stability as well as its stated aim of encouraging further use of demand side response as a normal activity to secure peak demand rather than an abnormal emergency action.</li> <li>However...the aim of removing the ‘panic factor’ will not likely be served through a name change as the attention and importance attached to the existing NISM publications will simply be directly associated with the issuing of a system margin warning except where parties are unaware of the new system notifications meaning.</li> </ul>

## National Grid Comments on Responses

- 6.3 National Grid would like to thank all of the respondents for their comments regarding GC0093 **Error! Reference source not found.**
- 6.4 E.ON/Uniper and UK Power Reserve were contacted directly to understand the concerns highlighted in their responses in more detail.
- 6.5 Following these discussions, we are comfortable that the responses flag *potential* risks – particularly regarding lack of familiarisation of the new term - rather than material impacts for Market Participants or the System Operator. This has been discussed already in point 3.3.
- 6.6 It is understandable that there will be a small amount effort on the part of market participants to ensure operational staff and their IT systems support appropriate acknowledgement/response to the renamed warning, as has happened previously.
- 6.7 We acknowledge that should this change be approved, clear and timely industry communications will be needed in advance of being used for the first time.
- 6.8 In response to the Scottish Power response, we can confirm that changes to BMRS messages & System Warning fax templates will be arranged, as well as amendments to System Operator control room procedures.
- 6.9 We are therefore satisfied with the outcome of this consultation process to proceed with this proposal.

## Annex 1 - Proposed Legal Text

### GLOSSARY & DEFINITIONS (GD)

National Electricity Transmission System Warning – <del>Inadequate System Margin</del> <b>Electricity Margin Notice</b>	A warning issued by NGET, in accordance with OC.7.4.8.5, which is intended to <b>invite a response from and to</b> alert recipients of to a decreased <del>an inadequate System Margin</del> and <del>which if not improved may result in Demand reduction being instructed.</del>
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#### OC7.4.8.4 Types Of National Electricity Transmission System Warnings

**National Electricity Transmission System Warnings** consist of the following types:-

- (i) **National Electricity Transmission System Warning – ~~Inadequate System Margin~~ Electricity Margin Notice**
- (ii) **National Electricity Transmission System Warning - High Risk of Demand Reduction**
- (iii) **National Electricity Transmission System Warning - Demand Control Imminent**
- (iv) **National Electricity Transmission System Warning - Risk of System Disturbance**

#### OC7.4.8.5 National Electricity Transmission System Warning - ~~Inadequate System Margin~~ **Electricity Margin Notice**

A **National Electricity Transmission System Warning - ~~Inadequate System Margin~~ Electricity Margin Notice**

may be issued to **Users** in accordance with OC7.4.8.2, at times when there is a reduced **System Margin**, as determined under BC1.5.4. It will contain the following information:

- (i) the period for which the warning is applicable; and
- (ii) the availability shortfall in MW; and
- (iii) intended consequences for **Users**, including notification that **Maximum Generation Service** may be instructed.

#### OC 7.4.8.6 National Electricity Transmission System Warning - High Risk of Demand Reduction

(a) A **National Electricity Transmission System Warning - High Risk of Demand Reduction** may be issued to **Users** in accordance with OC7.4.8.2 at times when there is reduced **System Margin**, as determined under BC1.5.4 and in **NGET's** judgement there is increased risk of **Demand** reduction being implemented under OC6.5.1. It will contain the following information in addition to the required information in a **National Electricity Transmission System Warning -**

~~**Inadequate System Margin**~~ **Electricity Margin Notice:**

- (i) the possible percentage level of **Demand** reduction required; and
- (ii) Specify those **Network Operators** and **Non Embedded Customers** who may subsequently receive instructions under OC6.5.1.

(b) A **National Electricity Transmission System Warning - High Risk of Demand Reduction** may also be issued by **NGET** to those **Network Operators** and **Non Embedded Customers** who may subsequently receive instructions under OC6.5.1 relating to a **Demand** reduction in circumstances not related to inadequate **System Margin** (for example **Demand** reduction required to manage **System** overloading). The **National Electricity Transmission System Warning - High Risk of Demand Reduction** will specify the period during which **Demand** reduction may be required and the part of the **Total System** to which it applies and any other matters specified in OC6.5.

#### OC7.4.8.6.1 Protracted Periods Of Generation Shortage

(a) Whenever **NGET** anticipates that a protracted period of generation shortage may exist a **National Electricity Transmission System Warning - ~~Inadequate System Margin~~ Electricity Margin Notice** or **High Risk of Demand Reduction** may be issued, to give as much notice as possible to those **Network Operators** and **Non Embedded Customers** who may subsequently receive instructions under OC6.5.

(b) A **National Electricity Transmission System Warning - High Risk of Demand Reduction** will in these instances include an estimate of the percentage of **Demand**

reduction that may be required and the anticipated duration of the **Demand** reduction. It may also include information relating to estimates of any further percentage of **Demand** reduction that may be required.

(c) The issue of the **National Electricity Transmission System Warning - Inadequate System Margin-Electricity Margin Notice** or **High Risk of Demand Reduction** is intended to enable recipients to plan ahead on the various aspects of **Demand** reduction.

#### OC7.4.8.6.1 Protracted Periods Of Generation Shortage

(a) Whenever **NGET** anticipates that a protracted period of generation shortage may exist a **National Electricity Transmission System Warning - Inadequate System Margin-Electricity Margin Notice** or **High Risk of Demand Reduction** may be issued, to give as much notice as possible to those **Network Operators** and **Non Embedded Customers** who may subsequently receive instructions under OC6.5.

(b) A **National Electricity Transmission System Warning - High Risk of Demand Reduction** will in these instances include an estimate of the percentage of **Demand** reduction that may be required and the anticipated duration of the **Demand** reduction. It may also include information relating to estimates of any further percentage of **Demand** reduction that may be required.

(c) The issue of the **National Electricity Transmission System Warning - Inadequate System Margin-Electricity Margin Notice** or **High Risk of Demand Reduction** is intended to enable recipients to plan ahead on the various aspects of **Demand** reduction.

#### OC7.4.8.10 General Management Of National Electricity Transmission System Warnings

(a) **National Electricity Transmission System Warnings** remain in force for the period specified unless superseded or cancelled by **NGET**.

(b) A **National Electricity Transmission System Warning** issued for a particular period may be superseded by further related warnings. This will include **National Electricity Transmission System Warning - Inadequate System Margin-Electricity Margin Notice** being superseded by **National Electricity Transmission System Warning - High Risk of Demand Reduction** and vice-versa.

#### OC7 APPENDIX 1 - NATIONAL ELECTRICITY TRANSMISSION SYSTEM WARNINGS TABLE

WARNING TYPE	GRID CODE	FORMAT	TO : FOR ACTION	TO : FOR INFORMATION	TIMESCALE	WARNING OF/OR CONSEQUENCE	RESPONSE FROM RECIPIENTS
<b>NATIONAL ELECTRICITY TRANSMISSION SYSTEM WARNING - Inadequate System Margin Electricity Margin Notice</b>	OC7.4.8.5	etc					

#### BC1.5.4 Reserve And Inadequate System Margin

##### Contingency Reserve

(a) The amount of **Contingency Reserve** required at the day ahead stage and in subsequent timescales will be decided by **NGET** on the basis of historical trends in the reduction in availability of **Large Power Stations** and increases in forecast **Demand** up to real time operation. Where **Contingency Reserve** is to be allocated to thermal **Gensets**, **NGET** will instruct through a combination of **Ancillary Services** instructions and **Bid-Offer Acceptances**, the time at which such **Gensets** are required to synchronise, such instructions to be consistent with **Dynamic Parameters** and other contractual arrangements.

##### Operating Reserve

(b) The amount of **Operating Reserve** required at any time will be determined by **NGET** having regard to the **Demand** levels, **Large Power Station** availability shortfalls and the greater of the largest secured loss of generation (ie, the loss of generation against which, as a requirement of the **Licence Standards**, the **National Electricity Transmission System** must be secured) or loss of import from or sudden export to **External Interconnections**. **NGET** will allocate **Operating Reserve** to the appropriate **BM Units** and **Generating Units** so as to fulfil its requirements according to the **Ancillary Services** available to it and as provided in the **BC**.

#### Inadequate System Margin

(c) In the period following 1200 hours each day and in relation to the following **Operational Day**, **NGET** will monitor the total of the Maximum Export Limit component of the **Export and Import Limits** received against forecast **National Electricity Transmission System Demand** and the **Operating Margin** and will take account of **Dynamic Parameters** to see whether the anticipated level of the **System Margin** for any period is insufficient.

(d) Where the level of the **System Margin** for any period is, in **NGET's** reasonable opinion, anticipated to be insufficient, **NGET** will send (by such data transmission facilities as have been agreed) a **National Electricity Transmission System Warning - Inadequate System Margin - Electricity Margin Notice** in accordance with OC7.4.8 to each **Generator, Supplier, Externally Interconnected System Operator, Network Operator** and **Non-Embedded Customer**.

(e) Where, in **NGET's** judgement the **System Margin** at any time during the current **Operational Day** is such that there is a high risk of **Demand** reduction being instructed, a **National Electricity Transmission System Warning - High Risk of Demand Reduction** will be issued, in accordance with OC7.4.8.

(f) The monitoring will be conducted on a regular basis and a revised **National Electricity Transmission System Warning - Inadequate System Margin - Electricity Margin Notice** or **High Risk of Demand Reduction** may be sent out from time to time, including within the post **Gate Closure** phase. This will reflect any changes in **Physical Notifications** and **Export and Import Limits** which have been notified to **NGET**, and will reflect any **Demand Control** which has also been so notified. This will also reflect generally any changes in the forecast **Demand** and the relevant **Operating Margin**.

(g) To reflect changing conditions, a **National Electricity Transmission System Warning - Inadequate System Margin - Electricity Margin Notice** may be superseded by a **National Electricity Transmission System Warning - High Risk of Demand Reduction** and vice-versa.

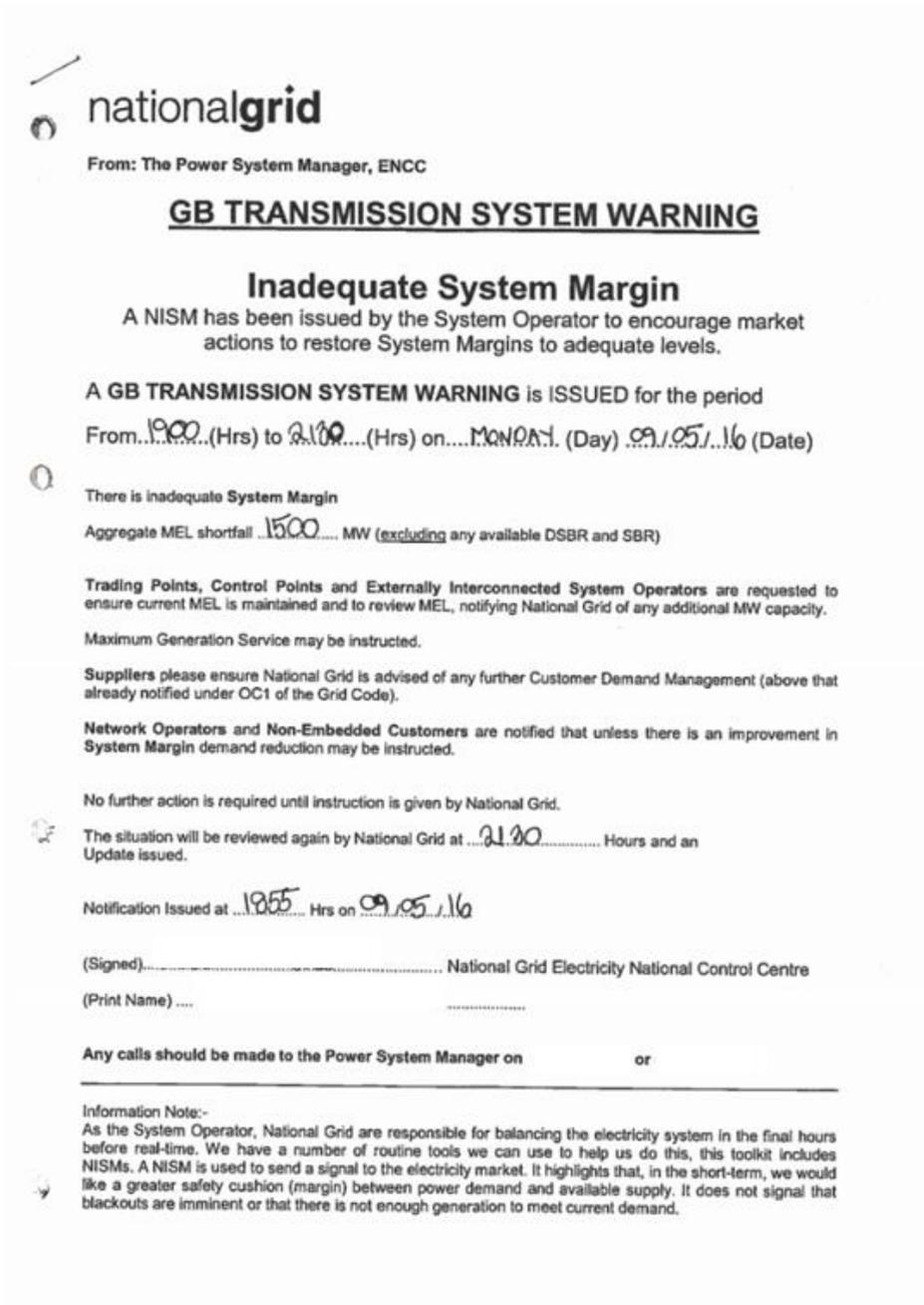
(h) If the continuing monitoring identifies that the **System Margin** is anticipated, in **NGET's** reasonable opinion, to be sufficient for the period for which previously a **National Electricity Transmission System Warning** had been issued, **NGET** will send (by such data transmission facilities as have been agreed) a **Cancellation of National Electricity Transmission System Warning** to each **User** who had received a **National Electricity Transmission System Warning - Inadequate System Margin - Electricity Margin Notice** or **High Risk of Demand Reduction** for that period. The issue of a **Cancellation of National Electricity Transmission System Warning** is not an assurance by **NGET** that in the event the **System Margin** will be adequate, but reflects **NGET's** reasonable opinion that the insufficiency is no longer anticipated.

(i) If continued monitoring indicates the **System Margin** becoming inadequate **NGET** may issue further **National Electricity Transmission System Warnings - Inadequate System Margin - Electricity Margin Notice** or **High Risk of Demand Reduction**.

(j) **NGET** may issue a **National Electricity Transmission System Warning - Inadequate System Margin - Electricity Margin Notice** or **High Risk of Demand Reduction** for any period, not necessarily relating to the following **Operational Day**, where it has reason to believe there will be inadequate-reduced **System Margin** over a period (for example in periods of protracted **Plant** shortage, the provisions of OC7.4.8.6 apply).

BC2.4.2 As provided for in BC1.5.4, **NGET** will monitor the total of the Maximum Export Limit component of the **Export and Import Limits** against forecast **Demand** and the **Operating Margin** and will take account of **Dynamic Parameters** to see whether the anticipated level of **System Margin** is insufficient. This will reflect any changes in **Export and Import Limits** which have been notified to **NGET**, and will reflect any **Demand Control** which has also been so notified. **NGET** may issue new or revised **National Electricity Transmission System Warnings - Inadequate System Margin - Electricity Margin Notice** or **High Risk of Demand Reduction** in accordance with BC1.5.4.

Fax to industry notifying issue of NISM – 9 May 2016:



## BMRS template

This is filled in as a message on BMRS to industry when a NISM is issued.

### Market Notification of Issue of 'Notification of Insufficient System Margin'

A NISM has been issued by the System Operator to encourage market actions to restore System Margins to adequate levels.

#### Issued at:

By Duty Power System Manager, Electricity National Control Centre:

There is Inadequate System Margin. System margin shortfall {MWSHORT} MW (excluding any available DSBR and SBR)

Maximum Generation Service may be instructed.

Trading Points, Control Points and Externally interconnected System Operators are requested to notify National Grid of any additional MW capacity.

Suppliers please advise National Grid of any additional Demand Control available

The situation will be reviewed again by National Grid at {REVIEWTIME} hours and an update issued.

This Notification of Issue of a GB Transmission System Warning — Inadequate System Margin Notification Issued at {ISSUETIME} hrs on {ISSUEDATE}

Issued by {ISSUEDBY} National Grid Electricity Control Centre

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#### Information Note:—

As the System Operator, National Grid are responsible for balancing the electricity system in the final hours before real—time. We have a number of routine tools we can use to help us do this, this toolkit includes NISMs. A NISM is used to send a signal to the electricity market. It highlights that, in the short—term, we would like a greater safety cushion (margin) between power demand and available supply. It does not signal that blackouts are imminent or that there is not enough generation to meet current demand.

**CR01 E.ON**

**GC0093 – Assessment of System Warnings**

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5<sup>th</sup> August 2016** to [Grid.Code@nationalgrid.com](mailto:Grid.Code@nationalgrid.com). Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

These responses will be included in the Report to the Authority which is drafted by National Grid and submitted to the Authority for a decision.

<b>Respondent:</b>	<i>Guy Phillips (guy.phillips@uniper.energy)</i>
<b>Company Name:</b>	<i>E.ON Group (including Uniper)</i>
<b>1. Do you believe that GC0093 better facilitates the applicable Grid Code Objectives?</b>	<p><i>For reference the applicable Grid Code objectives are:</i></p> <p><i>(i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;</i></p> <p><i>(ii) to facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);</i></p> <p><i>(iii) subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole; and</i></p> <p><i>(iv) to efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency.</i></p> <p>No, it is not clear how the proposal better facilitates the applicable Grid Code Objectives. There is a risk that the change in name of this System Warning</p>

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	<p>removes industry familiarity with this term and its implications for system operation and security of supply (objectives i and iii). In other respects the proposal is neutral (objectives ii and iv).</p> <p>The potential for reduced awareness and understanding by Users that 'Electricity Margin Notice' is the same as a Notice of Inadequate System Margin' (NISM) could result in a less efficient response to the System Warning by Users, with implications for secure operation of the transmission system as a whole. This is particularly the case going in to this coming winter with tighter system margins than have been seen for a number of years.</p>
<p><b>2. Do you support the proposed implementation approach of 10 business days following an Authority decision?</b></p>	<p>The implementation approach is reasonable, noting that some Users may have to make small system changes to pick up the new name of this System Warning in their IT systems.</p>
<p><b>3. Do you support the proposed changes to the Grid Code as set out in annex 1 to this consultation? If not, can you provide evidence of the risks or costs that would be incurred in implementing this change?</b></p>	<p>We have no comments on the drafting as it gives affect to the proposed change. We will incur a small cost to update IT systems to pick up the change in name of the System Warning.</p> <p>We will clearly ensure that all our plant operators are aware of this change should it be approved, to ensure that we continue to respond to this category of System Warning appropriately. We are however concerned that changing the name of this well understood System Warning may not be observed by all sectors of the market and that this may therefore erode the current level of response that might normally be expected, particularly ahead of a tighter winter, with the implications for security of supply that this could have.</p>
<p><b>4. Do you have any additional comments?</b></p>	<p>No.</p>

## CR02 RWE

### GC0093 – Assessment of System Warnings

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5<sup>th</sup> August 2016** to [Grid.Code@nationalgrid.com](mailto:Grid.Code@nationalgrid.com).

Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

These responses will be included in the Report to the Authority which is drafted by National Grid and submitted to the Authority for a decision.

<b>Respondent:</b>	John Norbury Network Connections Manager RWE Supply & Trading GmbH Windmill Hill Business Park Whitehill Way Swindon SN5 6PB T +44 (0)1793 89 2667 M +44 (0)7795 354 382 john.norbury@rwe.com
<b>Company Name:</b>	RWE Generation UK plc, RWE Supply & Trading GmbH
<b>1. Do you believe that GC0093 better facilitates the applicable Grid Code Objectives?</b>	Refer to answer to 2 below <i>For reference the applicable Grid Code objectives are:</i> <i>(i) to permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity;</i> <i>(ii) to facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);</i> <i>(iii) subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole; and</i> <i>(iv) to efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency.</i>
<b>2. Do you support the proposed implementation approach of 10 business days following an Authority decision?</b>	We are satisfied with the proposed implementation approach of 10 business days following an Authority decision.
<b>3. Do you support the proposed changes to the Grid Code as set out in annex 1 to this consultation? If not, can you provide evidence of the risks or costs that would be incurred in implementing this change?</b>	Neutral. We are not convinced that the proposed name change of such warnings would better facilitate the Grid Code objectives, without any accompanying material change to the content. We do not object to the proposed Grid Code change.
<b>4. Do you have any additional</b>	In addition to the references identified in the consultation, we note that reference to an

<b>comments?</b>	inadequate system margin warning also occurs in Grid Code BC2.4.2. Suggested text change to Definition of Electricity Margin Notice: Substitute “..which is intended to invite a response from and to alert recipients to a decreased System Margin..” with “..which is intended to alert and invite a response from recipients to a decreased System Margin”. Given that the “Electricity Margin Notice” will be issued as a National Electricity System Warning, the 2 <sup>nd</sup> reference to “Electricity” in the title would appear superfluous and inconsistent with other NETS warnings. Irrespective, using the title “System Margin Notice” would be more consistent and meaningful.
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## CR03 Scottish Power Generation

### GC0093 – Assessment of System Warnings

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5<sup>th</sup> August 2016** to [Grid.Code@nationalgrid.com](mailto:Grid.Code@nationalgrid.com). Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

These responses will be included in the Report to the Authority which is drafted by National Grid and submitted to the Authority for a decision.

<b>Respondent:</b>	Alastair Frew	
<b>Company Name:</b>	ScottishPower Generation	GC0093 Report to the
<b>1. Do you believe that GC0093 better facilitates the applicable Grid Code Objectives?</b>	Yes	Authority 09/08/2016 Version 1.0
<b>2. Do you support the proposed</b>	Yes	Page 20 of 23

<p><b>implementation approach of 10 business days following an Authority decision?</b></p>	
<p><b>3. Do you support the proposed changes to the Grid Code as set out in annex 1 to this consultation? If not, can you provide evidence of the risks or costs that would be incurred in implementing this change?</b></p>	<p>Yes, however the proposed text in BC1.5.4 (h) does not match all the other changes i.e. the term “Inadequate System Margin” has been change to “System Margin Notice – Electricity” and not “Electricity Margin Notice”.</p>
<p><b>4. Do you have any additional comments?</b></p>	<p>The acronym NISM is used in the fax to industry shown in annex 2 in fifth line and also twice in the Information Note at the bottom of the page. In terms of ease of use of users where is this acronym actually defined and going forward will the new acronym EMN be used or will it be NEMN and again where will it be defined?</p> <p>Looking at the consultant document sections 1.2 &amp; 3.1 define a NISM as “Notice of Inadequate System Margin”, however in annex 2 the BMRS template appears to use the definition NISM as “Notice of Insufficient System Margin”.</p> <p>In terms of the actual Fax &amp; BMRS notices both use the full term “GB Transmission System Warning – Inadequate System Margin” which you would think would be helpful, unfortunately this also does not appear to be a defined term. The correct defined term within the Grid Code is “National Electricity Transmission System Warning – Inadequate System Margin”.</p> <p>None on the proposed text changes actually appear to be addressing any of the difficulties of understanding the text or acronyms which are being used in the warning notices which are being issued.</p> <p>Going forward with this change it would be helpful to a user if the actual notifications, which are issued, were reviewed and amended to only use definitions and acronyms which a user can easily check in the published Glossary or Definitions documents. This probably applies to other notifications</p>

**CR03 Scottish Power Generation**

**GC0093 – Assessment of System Warnings**

Industry parties are invited to respond to this consultation expressing their views and supplying the rationale for those views, particularly in respect of any specific questions detailed below.

Please send your responses by **5<sup>th</sup> August 2016** to [Grid.Code@nationalgrid.com](mailto:Grid.Code@nationalgrid.com).

Please note that any responses received after the deadline or sent to a different email address may not receive due consideration.

These responses will be included in the Report to the Authority which is drafted by National Grid and submitted to the Authority for a decision.

<b>Respondent:</b>	Ian Tanner 01217121977 ian.tanner@ukpowerreserve.com
<b>Company Name:</b>	UK Power Reserve
<b>1. Do you believe that GC0093 better facilitates the applicable Grid Code Objectives?</b>	<p>UK Power Reserve agrees with and supports National Grids stated objective of ensuring a proportional and measured response to notifications issued by National Grid.</p> <p>Furthermore, we would support the intent behind the proposal on grounds that it is beneficial to both the National Grids system stability as well as its stated aim of encouraging further use of demand side response as a normal activity to secure peak demand rather than an abnormal emergency action.</p> <p>However, we disagree that this proposal is an appropriate solution to the issues raised and we do not believe that the proposal to change the name will serve to benefit any of the applicable objectives in a meaningful way as a standalone measure.</p> <p>The aim of removing the ‘panic factor’ will not likely be served through a name change as the attention and importance attached to the existing NISM publications will simply be directly associated with the issuing of a system margin warning except where parties are unaware of the new system notifications meaning.</p> <p>As such we consider the proposal potentially negative on objectives 1 and 2 and neutral on objectives 3 and 4.</p>
<b>2. Do you support the proposed implementation approach of 10 business days following an Authority decision?</b>	<p>We would agree if the decision is taken to implement this proposal that 10 business days would be an appropriate timeframe.</p>

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<p><b>3. Do you support the proposed changes to the Grid Code as set out in annex 1 to this consultation? If not, can you provide evidence of the risks or costs that would be incurred in implementing this change?</b></p>	<p>The proposed changes to the Grid Code are consistent with the proposal and we would support them in the case this modification is accepted.</p>
<p><b>4. Do you have any additional comments?</b></p>	<p>None.</p>