

# GC0133:

## Timely informing of the GB NETS System State condition

01	Proposal Form
02	Code Administrator Consultation
03	Draft Grid Code Modification Report
04	Final Grid Code Modification Report

**Purpose of Modification:** This Modification will require the Transmission System Operator (TSO) for GB; National Grid Electricity System Operator (NGESO); to inform, in a timely manner, the System State condition of the GB National Electricity Transmission System (NETS) to market participants.

 This Draft Grid Code Modification Report has been prepared in accordance with the terms of the Grid Code. An electronic version of this document and all other GC0133 related documentation can be found on the ESO website via the following link:  
<https://www.nationalgrideso.com/codes/grid-code/modifications/gc0133-timely-informing-gb-nets-system-state-condition>  
 The purpose of this document is to assist the Panel in making its recommendation on whether to implement GC0133 into the Grid Code.

 **High Impact:** None

 **Medium Impact:** None

 **Low Impact:** ESO (in terms of reporting the System State condition) and for Generators, Suppliers and other market participants (in terms of receiving, considering and taking internal action(s) arising from being notified of the System State condition).

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Timetable		 Any questions? Contact: <b>Paul Mullen Code Administrator</b>
<b>The Code Administrator recommends the following timetable:</b>		 email address <b>Paul.Mullen@nationalgrideso.com</b>
Code Administrator Consultation issued to the Industry (15 working days)	12 March 2020	 telephone <b>07794 537028</b>
Code Administrator Consultation closes	2 April 2020	Proposer: <b>Garth Graham</b>
Draft Final Modification Report presented to Panel	14 April 2020	 email address <b>garth.graham@sse.com</b>
Modification Panel decision	22 April 2020	 telephone <b>01738 456000</b>
Final Modification Report issued to the Panel to check voting recorded correctly (5 working days)	27 April 2020	National Grid ESO Representative: <b>Rob Wilson</b>
Final Modification Report issued to the Authority	5 May 2020	 email address <b>Rob.Wilson@nationalgrideso.com</b>
Decision implemented in Grid Code	10 working days after Ofgem decision	 telephone <b>07799 656402</b>

## Proposer Details

<b>Details of Proposer:</b> (Organisation Name)	SSE Generation Ltd
Capacity in which the Grid Code Modification Proposal is being proposed: (e.g. CUSC Party)	SSE Generation Ltd
<b>Details of Proposer's Representative:</b> Name: Organisation: Telephone Number: Email Address:	Garth Graham SSE Generation Ltd 01738 456000 garth.graham@sse.com
<b>Details of Representative's Alternate:</b> Name: Organisation: Telephone Number: Email Address:	Andrew Colley SSE Generation Ltd 01738 456000 andrew.colley@sse.com
<b>Attachments (No): None.</b>	
<b>If Yes, Title and No. of pages of each Attachment:</b>	

## Impact on Core Industry Documentation.

Please mark the relevant boxes with an "x" and provide any supporting information

<b>BSC</b>	<input checked="" type="checkbox"/>
<b>CUSC</b>	<input type="checkbox"/>
<b>STC</b>	<input type="checkbox"/>
<b>Other</b>	<input type="checkbox"/>

The BSC deals with the BMRS. We do not think that this proposal will directly impact on the BSC itself. However, it would see the ESO using the current BMRS System Warning page to inform stakeholders of changes to the condition of the GB NETS 'System State' situation.

## 1 About this Document

GC0133 was proposed by SSE Generation Ltd and was submitted to the Grid Code Review Panel for its consideration on 29 October 2019. At the Grid Code Review Panel on 29 October 2019, the Panel unanimously agreed that GC0133 should proceed to Code Administrator Consultation once the Proposer and the ESO representative had agreed the solution and the legal text.

GC0133 will require the Transmission System Operator (TSO) for GB; National Grid Electricity System Operator (NGESO); to inform, in a timely manner, the System State condition of the GB National Electricity Transmission System (NETS) to market participants.

The ESO confirmed the view of the Proposer that this modification as set out would be fairly easy to achieve as the system state is currently monitored and updated by the ESO through the ENTSO-E Awareness System which is a platform for information sharing with other TSOs used within the ESO Control Room.

The ESO noted that it is a requirement of the System Operation Guideline ([Regulation \(EU\) 2017/1485](#)) establishing a guideline on electricity transmission system operation (SO) as entered into force on 14 September 2017) that the system state is shared with other TSOs but it is only at a very high level and contains no detailed information. The intention of this requirement was to help to coordinate system awareness and actions between TSOs, and with a particular focus on conditions that would have a potential impact across borders. It was not the intention in defining these system states that they would be of particular use to market participants hence why the code, as agreed with ACER and approved by the Commission, did not make any provisions for their wider sharing outside the TSOs. In the ESO's view if the Commission had identified any benefit in the wider sharing of this information then it would have required this to be incorporated.

The ESO expressed concern over the potential for media misreporting of the system state or incorrect conclusions to be drawn from this, particularly when the system is in 'Alert' state which means that, while currently operating normally, were one of a list of contingencies to occur then the system could move outside operational limits. The ESO noted it would be difficult to communicate this type of information succinctly using BMRS. In the ESO's view weighing this risk against the lack of definition in terms of what market participants would do with the system state information or what positive actions they could take from it, it would appear then to represent an additional cost, that ultimately would be borne by consumers, with little purpose other than the principle of transparency.

### **Code Administrator Consultation Responses**

3 responses were received to the Code Administrator Consultation. A summary of the responses can be found in Section 10 of this document. 2 of the 3 respondents agreed that the proposal better facilitates the applicable Grid Code objectives.

This Draft Grid Code Modification Report has been prepared in accordance with the terms of the Grid Code. An electronic copy of can be found on the National Grid ESO website <https://www.nationalgrideso.com/codes/grid-code/modifications/gc0133-timely-informing-gb-nets-system-state-condition> along with the Modification proposal form.

## 2 Original Proposal

### Defect

The Proposer has set out that they have identified a defect: namely that the current condition of the 'System State'<sup>1</sup>; which the ESO is required<sup>2</sup>, in real time operations, to monitor and determine for the GB NETS; is not currently visible to the wider industry<sup>3</sup>, such as Generators, Suppliers and other market participants (as well as BEIS, Ofgem, DNOs, Interconnectors, etc.) in a timely, and ongoing, manner.

### What

In the Proposer's view, the Grid Code will need to be amended to include a simple requirement on the ESO to update the BMRS System Warning webpage<sup>4</sup> as soon as reasonably practical, using reasonable endeavours, whenever the GB NETS 'System State' condition changes; be that a degradation or an improvement in the 'System State'.

The ESO would be required to report, via an update on the BMRS System Warning webpage, any and all changes in any 'System State' of the GB NETS irrespective of whether it is an improving or degrading situation.

The definitions of the various System States etc., would be based on those found in Article 3 of the System Operation Guideline ('SOGL') (Regulation (EU) 2017/1485<sup>5</sup>) and we detail this further in Section 6 below.

For the avoidance of doubt, the definitions proposed to be used do not currently appear in the 'Glossary & Definitions'<sup>6</sup> of the Grid Code (so including them as new definitions, with this proposal, should not give rise to inconsistencies etc., with the baseline).

The reasons for using these existing, well established and understood, definitions from SOGL for the purposes of this proposal is twofold.

Firstly, they are the prevailing legal definitions (as the SOGL has already entered into effect) that the ESO uses to operate the GB NETS.

Secondly, as such, the ESO is very familiar with these terms and already uses them; in respect of the classification of the 'System State'<sup>7</sup>; when performing its operational

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<sup>1</sup> Which we detail further in Section 6 below.

<sup>2</sup> In accordance with Article 19(1), (2) and (3) of SOGL.

<sup>3</sup> Although it is provided, by the ESO, to other TSOs, in accordance with Article 19(4), Article 42(1)(e) and Article 152(3)(a) of SOGL.

<sup>4</sup> <https://test2.bmreports.com/bmrs/?q=transmission/systemwarning>

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1485&from=EN>

<sup>6</sup> <https://www.nationalgrideso.com/document/33836/download>

<sup>7</sup> In accordance with Article 18 of SOGL.

security requirements of monitoring and determining the 'System State'<sup>8</sup> and taking the appropriate ESO action(s)<sup>9</sup> accordingly, as part of its day to day operation of the GB NETS, that they have been trained<sup>10</sup> to undertake.

This means that the change this proposal seeks to introduce into the Grid Code; to report in a timely manner using the BMRS website (which the ESO already uses, day to day) any changes to the GB NETS operational 'System State' situation; will be a very simple one for the ESO to undertake as the ESO already currently performs these two constituent elements (all be it separately at present).

## Why

In the Proposer's view there are three reasons for this change. First, this change should be made to enable Generators, Suppliers and other market participants (as well as BEIS, Ofgem, DNOs, and Interconnectors etc.,) to be constantly aware of the condition of the GB NETS 'System State' at any moment in time so that they can perform their work in a way that is conducive to supporting the ESO's operation of the GB NETS. Second, it will, by improving wider industry communications, result in the better operation of the GB NETS. Third, this proposal also seeks to *ensure and enhance the transparency and reliability of information on transmission system operation* (as required by Article 4(1)(g) and 4(2)(b) of SOGL). On their own each of these reasons would justify why this change should be made – combined they make a compelling case why this simple and straightforward change should be made.

## How

As detailed in Section 7 below, the ESO would be required to update the BMRS System Warning webpage as soon as reasonably practical, using reasonable endeavours, whenever the GB NETS 'System State' condition changes.

That change in the 'System State' condition would be in the form of either:

- (i) a degradation of the 'System State'; or
- (ii) an improvement of the 'System State'.

The ESO would be required to report, via an update on the BMRS System Warning webpage, any and all changes in any 'System State' of the GB NETS irrespective of whether it is an improving or degrading situation such that the current 'System State' is known to relevant parties in a timely manner.

The definitions of the various 'System States' etc., to be used in the Grid Code would be based on those found in Article 3 of SOGL.

The classification of the 'System State', by the ESO, would be in accordance with Article 18 of SOGL and this shall be monitored and determined, by the ESO, in accordance with Article 19 of SOGL.

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<sup>8</sup> In accordance with Article 19 of SOGL.

<sup>9</sup> See, for example, Articles 20, 21, 22, 23, 27, 32, 35, 42, 56, 102, 103, 131, and 152 of SOGL.

<sup>10</sup> See, for example, Articles 58 and 63 of SOGL.

The definitions that we consider should be included in the legal text for this proposal are:

- “operational security”
- “normal state”
- “alert state”
- “blackout state”
- “disturbance”
- “system state”
- “emergency state”
- “restoration state”
- “local state”
- “operational security indicators”
- “wide area state”.

The definition for each of these is detailed further in Section 6 below.

### 3 Governance

The Proposer believes that this change is simple and straightforward as it utilises existing processes / procedures / systems already used by the ESO in order to provide information to stakeholders in a timely manner, as outlined in the indicative legal text provided. This, in their view, warranted this proposal proceeding to Code Administrator Consultation. At the Grid Code Review Panel on 29 October 2019, the Panel unanimously agreed that GC0133 should proceed to Code Administrator Consultation once the Proposer and the ESO representative had agreed the solution (see section 6) and the legal text (see section 11).

### 4 Why Change?

The Proposer argued that there are three reasons for this change.

- First, this change should be made to enable Generators, Suppliers and other market participants (as well as BEIS, Ofgem, DNOs, and Interconnectors etc.) to be constantly aware of the condition of the GB NETS ‘System State’ at any moment in time so that they can perform their work in a way that is conducive to supporting the ESO’s operation of the GB NETS;
- Second, it will, by improving wider industry communications, result in the better operation of the GB NETS; and
- Third, this proposal also seeks to *ensure and enhance the transparency and reliability of information on transmission system operation* (as required by Article 4(1)(g) and 4(2)(b) of SOGL) which therefore helps to efficiently discharge the obligations imposed upon NGENSO by its license and to comply with the Electricity Regulation.

The Proposer argued that on their own each of these reasons would justify why this change should be made – combined they make a compelling case why this simple and straightforward change should be made.

In the opinion of the Proposer, this is a focused, simple, straightforward, ‘quick win’ proposal that plays its part (in terms of the wider industry communication processes and protocols) in taking forward a clear improvement to the Grid Code.

The Proposer noted, more generally, that their GC0109<sup>11</sup> proposal also addresses wider industry communication processes and protocols which could be improved. However, to be clear the GC0109 defect does not deal with ‘System State’ condition notification, hence why they have raised this new proposal which compliments, but does not conflict with, their GC0109 proposal.

## 5 Code Specific Matters

### Technical Skillsets

Knowledge of the Grid Code and SOGL.

### Reference Documents

“System Operation Guideline” (‘SOGL’) (Regulation (EU) 2017/1485<sup>12</sup>) dated 2<sup>nd</sup> August 2017

## 6 Solution

### Proposer’s Original Solution

This section is entirely drawn from the Proposer.

The Grid Code will need to be amended<sup>13</sup> to include a requirement on **the ESO to update the BMRS System Warning webpage as soon as reasonably practical, using reasonable endeavours, whenever the GB NETS ‘System State’ condition changes.**

**That change in the ‘System State’ condition would be in the form of either:**

- (iii) **a degradation** (such as might arise from a disturbance, going from ‘Normal State’ to ‘Alert State’ etc., or going from ‘Alert State’ to ‘Emergency State’ etc.,) **in the ‘System State’; or**
- (iv) **an improvement** (going from ‘Emergency State’ to ‘Alert State’ or ‘Alert State’ to ‘Normal State’ etc.,) **in the ‘System State’.**

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<sup>11</sup> <https://www.nationalgrideso.com/codes/grid-code/modifications/gc0109-open-transparent-non-discriminatory-and-timely-publication>

<sup>12</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1485&from=EN>

<sup>13</sup> We show here in red text the elements of the solution that are likely to appear in the legal text for this proposal.

For the avoidance of doubt, it is possible for a change in the 'System State' condition to occur such that it degrades (or improves) by 'jumping' one or more states; for example, straight from 'Normal State' to 'Emergency State' (thus 'skipping' the 'Alert State') or vice versa. Equally its possible for a state to improve; such as from 'Blackout State' to 'Restoration State'; but then quickly degrade back, in this example, to 'Blackout State' from 'Restoration State'.

The ESO would be required to report, via an update on the BMRS System Warning webpage, any and all changes in the 'System State' of the GB NETS irrespective of whether it is an improving or degrading situation such that the current condition of the 'System State' is known to relevant parties in a timely manner.

The BMRS reporting by the ESO would take the form either of:

“There has been a degradation in the 'System State' from [X] State to [Y] State”;  
or

“There has been an improvement in the 'System State' from [Y] State to [X] State”.

The ESO would be free, but not obliged, to add any additional commentary, about the change in the 'System State' condition, that they wished within their BMRS messaging.

The definitions of the various 'System States' etc., to be used in the Grid Code to put this proposal into effect would be based on those found in Article 3 of SOGL.

The ongoing classification of the 'System State' condition, by the ESO, for the purposes of reporting to GB stakeholders shall be in accordance with Article 18 of SOGL and this shall be monitored and determined, by the ESO, in accordance with Article 19 of SOGL.

In simple terms the definitions would read along the lines of:

“*[X] State' as defined in Regulation (EU) 2017/1485*”.

The definitions within the SOGL that we consider should be included in the legal text for this proposal are:

“(1) **'operational security'** means the transmission system's capability to retain a normal state or to return to a normal state as soon as possible, and which is characterised by operational security limits;”

“(5) **'normal state'** means a situation in which the system is within operational security limits in the N-situation and after the occurrence of any contingency from the contingency list, taking into account the effect of the available remedial actions;”

“(17) **'alert state'** means the system state in which the system is within operational security limits, but a contingency from the contingency list has been detected and in case of its occurrence the available remedial actions are not sufficient to keep the normal state;”

“(22) **'blackout state'** means the system state in which the operation of part or all of the transmission system is terminated;”

“(31) **'disturbance'** means an unplanned event that may cause the transmission system to divert from the normal state;”

“(36) **'system state'** means the operational state of the transmission system in relation to the operational security limits which can be normal state, alert state, emergency state, blackout state and restoration state;”

“(37) **‘emergency state’** means the system state in which one or more operational security limits are violated;”

“(38) **‘restoration state’** means the system state in which the objective of all activities in the transmission system is to re- establish the system operation and maintain operational security after the blackout state or the emergency state;”

“(46) **‘local state’** means the qualification of an alert, emergency or blackout state when there is no risk of extension of the consequences outside of the control area including interconnectors connected to this control area;”

“(51) **‘operational security indicators’** means indicators used by TSOs to monitor the operational security in terms of system states as well as faults and disturbances influencing operational security;” and

“(62) **‘wide area state’** means the qualification of an alert state, emergency state or blackout state when there is a risk of propagation to the interconnected transmission systems.”

For the avoidance of doubt, the definitions listed above do not currently appear in the ‘Glossary & Definitions<sup>14</sup>’ of the Grid Code (so including them as new definitions, with this proposal, should not give rise to inconsistencies etc., with the baseline).

That these various ‘System States’ are important, in terms of the operation of the GB NETS, is clear from both their pre-eminence and repeated use, as well as the associated obligations, detailed elsewhere in SOGL, on the ESO<sup>15</sup> (and other parties) together with what is set out in the Emergency & Restoration Network Code<sup>16</sup> which states that:

*“Commission Regulation (EU) 2017/1485 [SOGL] sets out harmonised rules on system operation for transmission system operators (‘TSOs’), regional security coordinators (‘RSCs’), distribution system operators (‘DSOs’) and significant grid users (‘SGUs’). It identifies different critical system states (normal state, alert state, emergency state, blackout state and restoration).<sup>17</sup>” [emphasis added]*

If the ‘System State’ condition were not considered to be critical to the safe and secure operation of the system in both ordinary, day to day, situations or in exceptional circumstances then there would be (i) no need to explicitly set this out in a law, or (ii) define, and use, those terms repeatedly in the SOGL (and Emergency & Restoration Network Code) when the ESO performs the operational security requirements<sup>18</sup> needed to ensure the operational security<sup>19</sup> of the GB NETS.

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<sup>14</sup> <https://www.nationalgrideso.com/document/33836/download>

<sup>15</sup> See, for example, Articles 20, 21, 22, 23, 27, 32, 35, 42, 56, 102, 103, 131, and 152 of SOGL.

<sup>16</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R2196&from=EN>

<sup>17</sup> Recital (3), ERNC.

<sup>18</sup> See, for example, Part II, Title 1 of SOGL.

<sup>19</sup> See, for example, Part II of SOGL.

## Revisions to Proposer's Original Solution

The Proposer and the ESO representative met to discuss the Proposer's Original solution (as set out above). While not implying that the ESO agreed with the modification or its solution as presented by the Proposer, legal text was developed embodying the principles of the proposal and this is presented in Section 11 below.

## 7 Impacts & Other Considerations

### Proposer's View

In the Proposer's view this proposal is expected to have a low impact on the ESO (in terms of reporting the 'System State' condition) and for Generators, Suppliers and other market participants (in terms of receiving, considering and taking internal action(s) arising from being notified of the 'System State' condition).

In terms of the ESO this is because they already:

- (i) classify, monitor and determine the 'System State' on a real time basis, as part of their operation of the GB NETS; and
- (ii) provide information about the GB NETS, such as System Warnings, using the existing BMRS website tool.

As a result, in respect of this proposal, there is no new task for the ESO to perform in terms of (i).

However, there is only a new task, in terms of (ii), for them to perform with this proposal, which is to simply update the BMRS System Warning webpage with any and all changes (degradations or improvements) to the 'System State'.

This proposal therefore has a Low Impact on the ESO and should not, for example, require new IT system solutions to be procured / tested/ installed. In terms of Generators, Suppliers and other market participants (as well as BEIS, Ofgem, DNOs and Interconnectors etc.,) they will need to be cognisant of the possibility of amending their internal procedures in terms of considering the information they receive, via the BMRS, on the 'System State' condition and take whatever appropriate action they deem fit to act on that information in a manner conducive to supporting the ESO's operation of the GB NETS.

As these parties already have access to and use the BMRS website, including the System Warning webpage, for this general purpose, this proposal therefore has a Low Impact on Generators, Suppliers and other market participants (as well as BEIS, Ofgem, DNOs and Interconnectors etc.,) and should not, for example, require new IT system solutions to be procured / tested/ installed.

### ESO's View

This assessment of the impact of the modification is not shared by the ESO. The very high level information already shared in the ENTSO-E Awareness System in fulfilment of the requirements of the System Operation Guideline is insufficient to remove the risk of misinterpretation of the information. Also, in terms of the impact on other market

participants, whilst the ESO agrees that this is low it also highlights that it is unclear what the purpose of sharing this information is, or what positive actions may be taken by market participants as a result.

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

No. This proposal does not relate to any matters pertaining to the current SCRs.

### **Consumer Impacts**

#### **Proposer's View**

In the view of the Proposer, this proposal will not have any detrimental impact on consumers and by improving the communication processes and procedures for the wider industry regarding the ongoing operation of the GB NETS this proposal will lead to a more secure system which, in turn, will benefit consumers directly.

#### **ESO's View**

In the view of the ESO, to share, fully explain and deal with any resulting dialogue about the system state will be a significant and ongoing task which has little clear benefit. It therefore represents an additional cost that ultimately will be borne by consumers.

## 8 Relevant Objectives

### Impact of the modification on the Applicable Grid Code Objectives:

Relevant Objective	Identified impact
(a) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	Positive
(b) Facilitating effective 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);	Neutral
(c) 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;	Positive
(d) 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; and	Positive
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	Neutral

### Proposer's View

In the view of the Proposer, this proposal to change the Grid Code will have a positive effect in terms of Applicable Objective (a) especially with respect to the operation of an efficient, coordinated and economical system for the transmission of electricity as stakeholders will have a constant understanding of the 'System State' condition of the GB NETS.

This proposal to change the Grid Code will have a positive effect in terms of Applicable Objective (c) especially with respect to the security of the transmission and distribution systems in the national electricity transmission system operator area taken as a whole as stakeholders will have a constant understanding of the 'System State' condition of the GB NETS

This proposal to change the Grid Code will have a positive effect in terms of Applicable Objective (d) especially with respect to discharging the obligations imposed upon the

licensee in terms of comply with SOGL, as well as the Emergency & Restoration Network Code.

This proposal to change the Grid Code will have a neutral effect in terms of Applicable Objectives (b) and (e).

### **ESO's View**

In the view of the ESO, unless a clear benefit can be demonstrated then the proposal is negative against objective (d) in that it gold plates a requirement of European Law for no clear purpose and makes an inefficient use of time and resources the cost of which will ultimately be borne by consumers. It is neutral against the rest of the objectives, for (a)-(c) because it is unclear what positive actions market participants will be able to take from the system state information.

## **9 Implementation**

This Modification should be implemented 10 working days following a decision from the Authority.

## **10 Code Administrator Consultation Response Summary**

The Code Administrator Consultation was issued on 12 March 2020 for 15 working days with a closing date of 2 April 2020.

3 responses were received (Drax Power Limited, SSE Generation Limited and National Grid ESO) in response to the Code Administrator Consultation and these can be found in Annex 1 of this report.

### **On whether or not the Original best met the Grid Objectives:**

- The majority of respondents agreed that the Original best met the Grid Code Objectives stating that the Modification increases transparency and provides industry with a clearer indication of the current system state. One respondent also added that the conclusion of the 9 August 2019 event identified the need for improvements in real-time information exchange between National Grid ESO and the wider industry and believe that the GC0133 Original demonstrably helps to achieve this need.
- However, the National Grid ESO respondent was unclear on the benefits to stakeholders and consumers and is particularly concerned about the considerable potential for media misreporting of the system state or for incorrect conclusions to be drawn from this.

### **On Implementation:**

- Two respondents supported the implementation approach (10 working days following a decision from the Authority). One of these respondents commented that there is no need for either a transition period or a prolonged implementation period as the systems are already in place.

- However, the National Grid ESO respondent (whilst noting that “system state is currently monitored and updated by the ESO through the ENTSO-E Awareness System”) proposed implementation ~ 6 months after the Authority’s decision date. This would allow National Grid ESO the time to develop, with stakeholders, the right messaging required and limit the risk of misinterpretation.

## 11 Legal Text

The Proposer and the ESO representative met to discuss the legal text (new text is shown in red) and agreed the following:

**Extract from Glossary and Definitions section:**

<p><b>GB NETS System State</b></p>	<p>The state of the <b>GB NETS</b> as classified according to Article 18 of <b>European Regulation (EU) 2017/1485</b> “System Operation Guideline”, as monitored and determined in real-time by <b>The Company</b> according to Article 19 of <b>European Regulation (EU) 2017/1485</b> and which includes the following system states as defined in <b>European Regulation (EU) 2017/1485</b>:</p> <p>‘normal state’ means a situation in which the system is within operational security limits currently and will remain so after the occurrence of any contingency from the contingency list as created by <b>The Company</b> in accordance with <b>European Regulation (EU) 2017/1485</b>, and taking into account the effect of any available remedial actions;</p> <p>‘alert state’ (which shall, when reported on BMRS according to OC4.4.3, be recorded as ‘Awareness State’) means the system state in which the system is within operational security limits currently, but a contingency from the contingency list has been detected and in case of its occurrence the available remedial actions are not sufficient to maintain the normal state;</p> <p>‘emergency state’ means the system state in which one or more operational security limits are violated;</p> <p>‘blackout state’ means the system state in which the operation of part or all of the transmission system is terminated; and</p> <p>‘restoration state’ means the system state in which the objective of all activities in the transmission system is to re-establish system operation and maintain operational security after a blackout or emergency state.</p>
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<b>European Regulation (EU) 2017/1485</b>	Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.
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**New Operating Code:**

**OPERATING CODE NO. 4  
(OC4)**

**REAL TIME REPORTING OF GB NETS SYSTEM STATE**

**CONTENTS**

(This contents page does not form part of the Grid Code)

**OC4.1 INTRODUCTION**

Operating Code No.4 ("OC4") is concerned with the real time public reporting, by **The Company**, of the **GB NETS System State**.

The system state is defined within **European Regulation (EU) 2017/1485** "System Operation Guideline". It is monitored and determined by **The Company** in accordance with this.

**OC4.2 OBJECTIVES**

The objective of OC4 is to require the real time public reporting of the **GB NETS System State** by **The Company**.

**OC4.3 SCOPE**

OC4 applies to **The Company**.

**OC4.4 REPORTING OF THE GB NETS SYSTEM STATE**

OC4.4.1 **The Company** shall ensure that any and all changes to the GB NETS System State are reported publicly as soon as is reasonably practicable following a change in its status.

OC4.4.2 The format of such a message will include, but is not limited to, the current and

previous status of the **GB NETS System State** and the time at which the change in the status took place.

OC4.4.3 The reporting of the **GB NETS System State** will be carried out by means of messages inputted by **The Company** to the system warnings webpage of the **Balancing Mechanism Reporting Service (BMRS)**.

## 12 Impacts

Industry costs	
Resource costs	<b>£2,723</b> – 1 Consultation <ul style="list-style-type: none"><li>• 0 Workgroup meetings</li><li>• 0 Workgroup members</li><li>• 1.5 man days effort per consultation response</li><li>• 3 consultation respondents</li></ul>
Total Industry Costs	<b>£2,723</b>

## Annex 1: Code Administrator Consultation Responses

This Annex sets out the Code Administrator Consultation Responses received as part of the Code Administrator Consultation which ran from 12 March 2020 to 5pm on 2 April 2020.