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Grid Code Modification	At what stage is this document in the process?
# GC0105: ## Mod Title: System Incidents Reporting	01 Proposal Form 02 Workgroup Consultation **03 Workgroup Report** 04 Code Administrator Consultation 05 Draft Grid Code Modification Report 06 Final Grid Code Modification Report

Purpose of Modification:

This modification aims to rectify the identified defect which is: “the Grid Code Review Panel has previously received an annual report from National Grid indicating system incidents and reporting unplanned outages of Interconnectors, load or generation connected to transmission or distribution networks. This annual report is important to industry and to the Grid Code Review Panel as it helps monitor the effectiveness of the technical requirements in the Grid Code and Distribution Code. In 2017 National Grid stopped providing the report.”. The Modification aims to reinstate the report and at the same time to specify the content and timing.

	This document contains the discussion of the Workgroup which formed in February 2018 to develop and assess the proposal, the responses to the Workgroup consultation which closed on 21 December 2018, and the voting of the Workgroup held on 1 February 2019.
	**High Impact**: None identified
	**Medium Impact:** None identified
	**Low Impact:** all users

Contents

Timetable

The Grid Code Review Panel has agreed the following timetable:

Modification Stage 1 (modification raised)	10 October 2017
Initial consideration by Workgroup	22 February 2018
Workgroup Consultation issued to the Industry	29 November 2018
Modification concluded by Workgroup	February 2019
Workgroup Report presented to Panel	28 February 2019
Code Administration Consultation Report issued to the Industry	w/c 4 March 2019
Draft Final Modification Report presented to Panel	25 April 2019
Modification Panel decision	25 April 2019
Final Modification Report issued the Authority	w/c 29 April 2019
Decision implemented in Grid Code	No later than 14 June 2019

Any questions?

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1 About this document

Executive Summary

This document is the Workgroup Report and contains the discussion of the Workgroup which formed in February 2018 to develop and assess the proposal.

GC0105 was proposed by Element Power, which was subsequently acquired by Statkraft (the Proposer) on 10th October 2017. The modification proposal was submitted to the Grid Code Review Panel for its consideration on 18 October 2017. The Panel decided to send the Original Proposal to a Workgroup to be developed and assessed against the Applicable Grid Code Objectives.

The Proposer raised the modification proposal due to an identified defect, defined below, in the Grid Code. The defect relates to the continued production of an annual report on system incidents by National Grid in its role as Electricity System Operator. The Proposer's Original Solution, put forward on 10th October 2017, was modified during the Workgroup process (6 workgroup meetings, a consultation and bilateral discussions) to the Proposer's Solution in Section 3 below. National Grid have proposed an alternative solution (WAGCM) which is set out in Annex 4. As part of the work undertaken by the Workgroup, a Workgroup Consultation, which closed on 21 December 2018, was undertaken. The details of the outcome of the consultation can be found in section 4 and the responses are detailed in Annex 5. The Workgroup has voted on the options and recorded their views in Section 5 below.

In this document the following terms are used:

Term/Acronym	Definition
Grid Code Review Panel (GCRP)	A Panel of elected and appointed individuals that make decisions in relation to proposed and ongoing Grid Code modifications.
National Grid Electricity System Operator (NGESO)	In light of the forthcoming legal separation, from 1st April 2019, within National Grid, this Workgroup report has been amended to refer to 'NGESO' where

	it has previously referred to 'NGET'.
Original Proposal	This is the Modification Proposal Stage 01 as raised on 10 October 2017 and presented to the Grid Code Review Panel 18 October 2018.
Proposer's Solution	This is the Proposer's final solution (i.e. Modification) developed through the work of the Workgroup.
RoCoF	Rate of Change of Frequency Hz/s
System Operation Guideline (SOGL)	The European Union System Operation Guideline
STCP	System Operator Transmission Owner Code (STC) Procedure.
System Operator Transmission Owner Code (STC)	A code that defines the relationship between the transmission system owners and the system operator.
Workgroup Alternative Grid Code Modification (WAGCM)	This is the alternative Solution/Proposal that has been raised by the NGESO representative.

Background

GC0105 aims to amend the Grid Code to incorporate a Systems Incident Report that would be produced by NGESO. The Workgroup consulted on this Modification and a total of four responses were received. These responses can be found in Annex 5 below.

Section 2 (Original Proposal) and Section 3 (Proposer's Solution) are sourced directly from the Proposer and any statements or assertions have not been altered or substantiated/supported or refuted by the Workgroup. Section 4 of the Workgroup Report contains the discussion by the Workgroup in relation to the Proposer's Solution and the work undertaken to reach its final form as presented in this report.

The Grid Code Review Panel detailed in the Terms of Reference the scope of the work for the GC0105 Workgroup and the specific areas the Workgroup should consider. The table below details these specific areas where the Workgroup have covered them.

The full Terms of Reference can be found in Annex 1.

Specific Area	Location in the report
Impact on system processes for National Grid and other users	Section 3 & 4 of the report

History of previous reports and consideration of previous reporting mechanism	Section 3 & 4 of the report
Benefits to system operator and users in helping to perform future policy	Section 3 & 4 of the report
Suitability/flexibility of report for future use	Section 3 & 4 of the report
Inclusion of 'SOF' scenarios and demonstration of what industry wants to do with the information	Section 3 & 4 of the report

2 Original Proposal

Defect

The Grid Code Review Panel has previously received an annual report from National Grid indicating system incidents and reporting unplanned outages of Interconnectors, load or generation connected to transmission or distribution networks. This annual report is important to industry and to the Grid Code Review Panel as it helps monitor the effectiveness of the technical requirements in the Grid Code and Distribution Code. In 2017 National Grid stopped providing the report.

What

National Grid has produced System Incidents reports for the Grid Code Review Panel on an approximate annual basis for approaching 20 years; however, the requirement to do so and the specification for the report have not been included in the Grid Code. The requirement for National Grid in its role as GB System Operator to provide this report to the Panel needs to be enshrined in the Grid Code.

Why

National Grid has provided the report in the past. The report has been vital in monitoring the effectiveness of the Grid Code for example the risk of generation and consequently load disconnection as a result of high Rate of Change of Frequency (RoCoF) events. The reporting procedure was established in 1997 and was referenced in National Grid's February 2009 report on the load disconnection during the significant system incident occurring on 27 May 2008.

Under the new governance arrangements, National Grid has taken the view that the System Incidents report is not mandated by the Grid Code and therefore may not necessarily be delivered. By putting the requirement into the Grid Code this defect will be rectified. As noted above, the report has been vital in monitoring the effectiveness of the Grid Code for example the risk of generation and consequently load disconnection

as a result of high RoCoF events. The reporting procedure was established in 1997 and was referenced in National Grid's February 2009 report on the load disconnection during the significant system incident occurring on 27 May 2008. Examples of reporting by EirGrid, FinGrid and National Grid at the Ops Forum are included in Annex 1[1] Future reporting will help ensure that the Grid Code requirements are fit for purpose and will serve as an early warning if certain Grid Code requirements need to be reassessed as the transmission and distribution systems (together with the load and generation connected to them) changes as GB moves towards a low carbon economy.

How

The Grid Code will be modified to codify the requirement on National Grid to produce the report.

3 Proposer's Solution

The Proposer's Solution which has developed from the Original Solution through workgroup discussions, a consultation and several bilateral discussions, is to codify in the Grid Code a requirement for NGESO to annually prepare and present to the October[2] Grid Code Review Panel every year a report titled – **System Incidents Report** - containing the following information:

1. A record of every significant event on the National Electricity Transmission System including the following events:

    a. A loss of infeed or exfeed (import or export including generation, demand and interconnection) of =>250MW.

    b. a frequency excursion outside the limits[3] 49.90-50.10Hz.

    c. A fault on the transmission network which:

        i. Could be linked to the known or reported tripping of any Power Station, DC Converter or User System.

        ii. Is linked to a change in the transmission system voltage of more than[4]:

            a. 400kV: > +/-5% for >15min

            b. 275kV or 132 kV: > +/- 10% for >15min

[1] Annex 1 is the presentation (7 slides) from Element Power in October 2018.

[2] October has been chosen as summer is the most challenging period for operating the system (due to the lighter loading and higher % penetrations of renewables) and an October report will be up to date for summer events.

[3] Refer to Grid Code definition of "Target Frequency"

[4] Refer to Grid Code CC6.1.4

d. Any known demand disconnected >=50MW from the National Electricity Transmission System or other lesser demand if notified to System Operator.

e. Any Demand Control action taken.

2. A report of each significant event with the following data as appropriate and available:

a. The time(s) in hh.mm.ss of the significant event and any potentially related occurrences.

b. Any known or reported loss of Embedded Power Station(s) with locations and ratings where available.

c. The frequency record (in table and graphical format) at <=1 second intervals for 1 minute before and after the incident.

d. The frequency (to 2 decimal places) immediately before the significant event.

e. The frequency (to 2 decimal places) immediately after the significant event.

f. The maximum rate of change of frequency recorded during the significant event over a specified time period e.g. 500ms.

g. Where known the MW of all individual losses or trips related to the significant event.

h. Where known the identity the Users and Network Owner of all demand losses or trips related to the significant event.

i. The location of any reported transmission fault on the network diagram and geographically.

j. The extent of any voltage dip associated with the significant event.

k. An estimate of system inertia in MWs (Mega Watt Seconds) immediately before and immediately after the event so that estimated inertia lost in the event is identified.

l. Any other data available that is of value to a clearer understanding of the significant event and its potential implications.

To obtain, manage, present, communicate and report the data above NGET shall:

- Present the System Incidents Report in a pdf and the associated data in a spreadsheet.

- Maintain an area of the National Grid web site with a list of all historic System Incidents Reports and information on any process required for legitimate parties to obtain the reports (if reports are not available to download).

- Notify all Electricity Distribution Licence holders and Network Operators of every significant event and request information to fulfil its duties in section 2 above.

- Include a section in the System Incidents Report showing how system inertia is estimated for Section 2k above.

- Include a section in the System Incidents Report outlining progress towards reporting events and associated data on the National Electricity Transmission System including:

    - three phase fault;
    - three phase to earth fault;
    - phase to phase faults;
    - phase to earth faults;
    - the associated voltage dips – durations and spreads;
    - over-voltages;
    - under-voltages;
    - voltage dips of >50%;
    - lightning strikes.

Timescales for reporting:

- A data cut-off date of the end September for a given year;
- Data is collated and processed in October for a given year;
- A check, review and sign off at NGESO
- Report published in November for a given year and included as part of the System Operability Framework (SOF) report

4 Workgroup Discussions

The Workgroup convened six times to discuss the issue, detail the scope of the proposed defect, assess the options for resolving the defect, assess the proposal in

terms of the Grid Code Applicable Objectives and review the responses to the Workgroup Consultation. The discussions and views of the Workgroup are outlined below.

First and Second Workgroup meetings

At the initial Workgroup meeting the Workgroup reviewed the reporting requirements that the Proposer had outlined in the Original Proposal[5].

The NGESO representative stated that they would be able to provide the majority of the proposed requirements. The other requirements as set out below were discussed by the Workgroup.

'Significant event'

Whilst the Workgroup agreed on the reporting metrics to be used for each significant event report as listed at 2(a) to (l) in the Original Proposal, the NGESO representative made representations about the scaling around fault reporting and specifically the proposed reporting threshold of 250MW in the Original Proposal. The NGESO representative considered this too low to be considered as being a 'significant' event and suggested a higher 600MW threshold. A Workgroup Alternative Grid Code Modification (WAGCM) has been raised by NGESO which includes a number of differences (see Annex 4).

Notification Obligations

The Proposer recognised the need for a pragmatic approach around how NGESO reports on significant events to the distribution licence holders and network operators and how these parties respond to the data requests. The Proposer clearly stated that he is not seeking to introduce any new requirement for reporting by means of this proposal but is only seeking to use existing processes and channels to gather the relevant and available data. The Workgroup recognised the need to understand the extent of current reporting mechanisms and obligations in the Grid Code and Distribution Code to avoid the risk of duplication.

The Workgroup discussed the requirements of STCP 03-1 *Post Event Analysis and Reporting* which sets out how parties (namely NGESO[6] and each Transmission Owner) liaise with each other in response to transmission system events, from occurrence through to joint investigations if necessary. The Workgroup discussed the potential need for a consequential change to the System Operator Transmission Owner Code (STC) requiring each Transmission Operator to provide the System Operator (NGESO) with the information it needs to produce the report. The Proposer stated that they did not want their Proposal to evolve to require consequential modifications having to be raised for other Codes. The Proposer noted that should any of the required information not be available (from the Transmission Owner) to complete the System Incidents Report, when the report is produced, then it should be noted by NGESO in the report as

[5] https://www.nationalgrid.com/sites/default/files/documents/GC0105%20Modification%20Proposal.pdf

[6] The STC, like the Grid Code, is being amended to reflect the forthcoming legal separation of National Grid, which will see 'NGET' become 'NGESO'.

such and should it be a reoccurring issue then another modification could be considered and raised in the future to address it.

When

The Workgroup were minded at this stage to specify that the first annual report should be produced within 12 months of implementation of GC0105 and thereafter on the anniversary of the first month after the first report.

The Workgroup discussed the forthcoming Workgroup Consultation, agreeing that it would be useful to understand what Industry members would use the proposed report for and whether the Workgroup has captured the correct items or whether additional items would provide value. These six questions posed to industry and the Workgroup's deliberation on the answers provided back by industry can be found later in this section.

Third Workgroup meeting

Given the length of time between the second Workgroup meeting (16 March 2018) and third Workgroup meeting (17 October 2018), at the third Workgroup meeting, the Proposer provided the Workgroup with a recap about the modification. The Proposer stated that historically National Grid had produced a System Incidents Report which covered ex-feed losses and in-feed losses. This report was discontinued in 2017. The Proposer had requested that the report was continued as it contained useful information to industry. However, National Grid at that time decided not to continue with the report publication. Therefore, the Proposer raised this modification to compel National Grid to produce an annual report which included system incidents.

The Proposer confirmed that they did not want to be too prescriptive as to the content of the report to allow flexibility to the System Operator but that the report would bring clarity as to what was required in terms of the provision of information. In the event that the report does not meet industry's requirements, a further modification could be raised at a later date.

The NGESO representative agreed that there was nothing in the Grid Code to compel National Grid to produce a system incidents report. The NGESO representative stated that they will be raising a WAGCM (see Annex 4) in relation to the content of the proposed system incident report as there is a disagreement, between NGESO and others, about the content of the report. The areas of disagreement include:

i. The loss of in-feed and ex feed reported should be set to 600 Megawatts as this is more proportionate than the current proposal of 250 Megawatts;

ii. The report should be available to the Grid Code Review Panel and relevant parties rather than generally available due to security; and

iii. To remove the requirement of an annual report as the requirement was more about regular assessment of the system incidents so it does not fit with this modification and therefore specifying an annual report does not add value.

The Workgroup discussed the issue of security and concluded that if the information is made available to some members of industry it must be considered to be in the public domain. The Proposer informed the Workgroup that the previous report was in the public domain and therefore there were competition concerns. The NGESO representative stated that further thought needed to be given to the implementation.

A Workgroup member queried what would happen in the event that a Transmission Operator failed to provide the requested information to the System Operator? The Proposer confirmed that in that situation, NGESO would need to specify this in the report.

The Proposer and NGESO representative both confirmed that in their proposals the System Operator would produce the report.

The NGESO representative stated that they will incorporate as much of the Original Proposal as possible into their WAGCM (See Annex 4) so that the differences between the options are minimal.

A Workgroup member stated that if the Proposer's Solution goes into the Grid Code, it will also be required for to be added into the System Operator Transmission Code.

Fourth Workgroup meeting

Following the Workgroup Consultation, the Workgroup convened to discuss the consultation responses (set out in Annex 5) and whether the Proposer's Solution or NGESO's WAGCM needed to be amended in light of the consultation responses.

The Workgroup noted that there had been four responses to the consultation from Drax Power Limited, Northern Powergrid, National Grid Electricity System Operator and ScottishPower Generation Limited. The Workgroups discussion and observations are listed below:

Question 1: Do you believe that the Original Proposal better facilitates the Grid Code Objectives?

The Workgroup noted that three of the respondents provided an answer to this question.

The Workgroup discussed the NGESO consultation response. A Workgroup member expressed that they did not believe the NGESO response was legally robust, in terms of System Operator Guideline and Grid Code compliance, as the role of the System Operator is to enhance the transmission system operation and that transparency is one element of that. Further, in response to the NGESO position that they would provide the information voluntarily, the Workgroup member stated that codification is required due to the past actions of NGESO in withdrawing the 'voluntary' publication of the System Incidents Report (which brought about this GC0105 proposal).

The Proposer stated that he disagreed that the reason for the original report has passed and when he requested NGESO to provide the report it declined to continue publishing the System Incidents Report.

It was further stated by a Workgroup member that NGESO's statement that looking at the technical detail was not part of the GCRP's role was incorrect as they do have a role that links to the implementation of the EU Network Codes and the Grid Code. Additionally, this position by NGESO, runs contrary to what has been previously stated by NGESO in public.

The NGESO representative stated that their position was set out in the consultation response and he has nothing further to add. However, it is worth noting that NGESO

has suggested alternatives approaches to a code modification and has volunteered, following further consideration, to provide the requested information in the System Operability Framework, which would not necessarily need code modification to deliver.

A Workgroup member expressed that there would be a lack of certainty, on the part of stakeholders, as to whether NGESO would withdraw the System Incident Report again in the future (as they had done in 2017 with the previous report). Therefore, their view was that it was better to proceed with the modification to place an obligation on NGESO to ensure transparency.

A Workgroup member queried the statement in NGESO's consultation response about the reason for the historic System Incident Report. The NGESO representative stated that this is detailed in their consultation response and that this links to the GC0035 modification, which may contain further information about why the original System Incident Report was produced.

Question 2: Do you support the proposed implementation approach?

The Workgroup noted that all four respondents provided a response to this question. All the Workgroup consultation respondents agreed with the implementation approach.

The Proposer stated that a date for the annual report needs to be fixed. He noted that the most important data is available over the summer and therefore he proposed the following:

i. A data cut-off date of the end September for a given year;
ii. Data is collated and processed in October for a given year;
iii. A check, review and sign off of two weeks; and
iv. Report published/sent to industry on or around 14 November of a given year.

The Workgroup agreed in principal that this sounded like a sensible solution should the Proposer's Solution or WAGCM be approved.

Question 3: Do you have any other comments?

The Workgroup noted that there were no consultation responses to this question.

Question 4: Do you wish to raise a Workgroup Consultation Alternative request for the Workgroup to consider?

The Workgroup noted that NGESO had already raised a WAGCM to this proposal. There were no other proposal requests raised through the consultation.

Question 5: Do you agree that the proposed contents of an annual System Incident Report including the associated data on the National Electricity Transmission System includes the necessary items and, if not, are there any items that you would include/exclude/amend?

The Workgroup noted that all four respondents provided an answer to this question.

A Workgroup member stated that the WAGCM suggests a threshold of 600 megawatts rather than 250 megawatts as stated in the Proposal, would run counter to a whole system approach which is being developed via the ENA's Open Networks initiative,

where events between 600 megawatts and 250 megawatts that do occur would not be visible to stakeholders with the WAGCM.

A Workgroup member expressed support for a 250 megawatts threshold as in their view, these could have an impact on the network, particularly over the summer period, when use of the transmission system maybe low, such as a sunny Sunday morning where, for example, demand is largely being serviced via embedded generation like solar Photovoltaics.. Thus a 600 megawatts event on the transmission system with demand of, say, 60 gigawatts (winter peak) might be said to be the equivalent of, say, 250 megawatts on a transmission system with say 15 gigawatts (summer lull) of demand.

The NGESO representative stated that having reviewed the consultation responses, he is happy to lower the threshold, in the WAGCM, of when the report would be triggered from 600 megawatts to 250 megawatts to provide solution options that are as aligned as possible.

The Proposer stated that they have not been explicit regarding the exact details of the content of the report so that NGESO can decide the exact content of the System Incident Report.

A Workgroup member stated that they would like the minimum requirements codified so that what needs to be provided is clear and these can be updated through the code modification process.

Question 6: Do you agree that such a System Incident Report will be a useful report for industry to help improve system resilience?

The Workgroup noted that all four consultation respondents answered this question. It was further noted that NGESO was the only party to respond negatively to this question as their view was that codifying the content of the report would remove future flexibility and that any future changes would require additional Grid Code modification to amend the content but being placed in the System Operability Framework would not need a modification.

A Workgroup member stated that the System Incidents Report legal text should specify the minimum core requirements in the report and that NGESO could provide additional information in the report if they so wished. It also provides industry parties an opportunity to raise issues with NGESO and Ofgem on reported faults.

Question 7: Do you consider this to be a useful report for your purposes? If yes please provide, where possible, any examples of what you might use it for.

A Workgroup member expressed that they agreed entirely with Northern Powergrid's consultation response to this question. It was agreed that the information in the System Incidents Report was required to move to a low carbon economy and 'whole system' future.

The Proposer agreed and stated that they agreed with Drax's response as the transparency will provide an opportunity to link with the charging arrangements.

Legal Text Comments

In response to Northern Powergrid's consultation response that the General Conditions may not be the most appropriate part of the Grid Code for the modification to sit, the Proposer suggested that a different approach to this could be to place it in Operating Condition 3, which is currently unused.

The Workgroup discussed the possibility of this also sitting in the Planning Conditions as a new PC.9. The Workgroup consensus was that the Operating Conditions were probably the most appropriate place for the legal text changes to be applied.

Fifth Workgroup meeting

The NGESO representative informed the Workgroup that following internal discussions, they had made changes to their legal text that would ensure that an STC change would not be required and that any costs associated with the implementation of the modification would be minimal. The NGESO representative invited the Proposer to work with them to review the changes and see whether they were comfortable to incorporate these changes into the Proposer's Solution. It was agreed that the Proposer would consider the legal text amendments and confirm their position with the Workgroup.

The Workgroup discussed the draft Workgroup report and legal text.

The Workgroup discussed the draft Workgroup report. It was agreed that the Code Administrator would review the content of the draft Workgroup report to improve the readability of it prior to circulating this around the Workgroup.

A Workgroup member highlighted that prior to voting they would like to see the full draft legal text for both the Proposer's Solution and the WAGCM so that it was clear what they were voting on. It was agreed that the final legal text of both the Proposer's Solution and WAGCM1 would be circulated prior to the vote.

Sixth Workgroup meeting

The Code Administrator advised the Workgroup that they had received apologies from a Workgroup member last minute. Therefore, the Workgroup was unable to vote on this modification.

The Workgroup discussed the Proposer's email which set out a number of drafting issues in relation to the Workgroup report. The Workgroup agreed that the suggested drafting amendments should be incorporated into the Workgroup report.

The Workgroup discussed the legal text. A Workgroup member stated that the text contained within the Workgroup report and WAGCM1 did not represent legal text. Concern was expressed that a vote could not take place until legal text had been provided. The NGESO representative stated that their view was that the solutions were essentially the legal text but the paragraph number had not been provided as it was a new section of the Grid Code that was proposed to be used i.e. OC3.

The Workgroup discussed some of the wording to be used to replace the term "for a given year". A Workgroup member stated that this had been raised in previous modifications and the NGESO legal team had suggested some suitable wording. It was agreed that the NGESO legal team should provide some suitable wording for this.

The Proposer stated that he was proposing a target frequency range of between 49.9 – 50.1 Hz. Therefore, the report should pick up deviations outside of this range. The Workgroup supported this approach.

The Proposer informed the Workgroup that they had considered the NGESO suggested changes to his solution and decided not to incorporate them into the Proposer's Solution. The Proposer clarified that there seemed to be a misunderstanding of the intention of his modification by NGESO in relation to fault reporting.

NGESO stated that part of the Proposer's solution would require a STC change. This would be raised at some point in the future should the Authority make a decision to implement the Proposer's Solution. The Workgroup discussed the implications of this and the NGESO representative stated that the affected part of the report would be omitted until the required code changes were made. The Workgroup were content with that approach.

5 Workgroup Vote

The Workgroup believe that the Terms of Reference have been fulfilled and GC0105 has been fully considered.

At the Workgroup meeting held 20 November 2018, the Workgroup agreed to support the proposed WAGCM1 which became the Workgroup Alternative Grid Code Modification.

The Workgroup met on 18 February 2019 and voted against the Grid Code objectives for the Original Proposal and the WAGCM. The Workgroup voted and [x] Workgroup members concluded that the Original Proposal is the best option, [x] Workgroup members believed that the WAGCM is best and the baseline received [x] votes.

In conclusion, the Workgroup supported the [Original] [WAGCM1] as the best option.

The voting record is detailed below:

Vote 1 – ***does the original or WACM facilitate the objectives better than the Baseline?***

Vote recording guidelines:

"Y" = Yes

"N" = No

"-" = Neutral

Workgroup Member	Better facilitates AGCO (i)	Better facilitates AGCO (ii)?	Better facilitates AGCO (iii)?	Better facilitates AGCO (vi)?	Better facilitates AGCO (v)?	Overall (Y/N)
Guy Nicholson						

Original						
WAGCM1						

Voting Statement:

xx

Simon Sheridan						
Original						
WAGCM1						

Voting Statement:

Xx

Garth Graham						
Original						
WAGCM1						

Voting Statement:

Xx

Alan Creighton						
Original						
WAGCM1						

Voting Statement:

xx

Isaac Gutierrez						
Original						
WAGCM1						

Voting Statement:

xx

Vote 2 – *Which option is the best? (Baseline, Proposer's Solution or WAGCM)*

Workgroup Member	BEST Option?
Guy Nicholson	
Simon Sheridan	
Garth Graham	
Alan Creighton	
Isaac Gutierrez	

6 GC0105: Relevant Grid Code Objectives

The assessment below is the Proposer's view of how GC0105 meets the Grid Code 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 – because data would be reported which could indicate problems emerging due to the change of generation technologies.
(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);	Positive – because system incidents are generally not zero cost and identification of incidents could provide information for CUSC changes to better reflect such costs.
(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	Positive – because security is threatened if events are not contained and the reporting sheds light on the ongoing effectiveness

transmission system operator area taken as a whole;	of containment measures.
(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	Neutral
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	Positive – because the report has been provided in the past but has not been documented in the Grid Code and not been clearly specified.

The benefits of publishing a System Incident report have been recognised by the industry and the Grid Code Panel over the years as this reporting has already been implemented on an annual basis since 1997. The benefits are that the report. will help ensure that the Grid Code requirements are fit for purpose and will serve as an early warning if certain Grid Code requirements need to be reassessed as the transmission and distribution systems (together with the load and generation connected to them) changes as GB moves towards a low carbon economy.

7 Implementation

The Proposer's view is that the costs of producing a System Incidents Report are already largely covered as the report has been produced on an annual basis since 1997 at an estimated cost of around £1000 (no more than £10,000). The proposal is that the requirement to produce a System Incident Report should be implemented as soon as practicable as NGESO have made this report many times before.

Therefore, it is proposed that the legal text changes to the Grid Code will be implemented within ten Working Days of an Authority decision. In terms of the production of the report by NGESO[7], its publications on NGESO's website and then its presentation to the GCRP, this will be done annually on or around the 14 November. To ensure openness and transparency for stakeholders, all System Incidents for the period prior to[8] the implementation of this proposal will be reported in the first report.

[7] For the avoidance of doubt; given the current (March 2018) deliberations about the separation of the System Operation functions from the Transmission Owner parts of NGET; the obligation to produce the report will be placed upon the System Operation part of the separated business.

[8] The last report ref "ROCOF GCRP_15-16" submitted to the GCRP covered the period up to [20/Nov/2016

Thus, the first report will cover the period from that date onwards.

8 Legal Text

The Legal text for the Proposer's solution is contained in Annex 7 of this report.

The Legal Text to support the WAGCM is contained in Annex 8 of this report.

Annex 1: GC0105 Terms of Reference

Annex 2: Most recent system incidents report to GCRP in January 2017 ref ROCOF GCRP 15-16

Annex 3: Proposer Presentation to Workgroup October 2018 "Examples of reporting"

Annex 4: NGET Proposed Workgroup Alternative Grid Code Modification (WAGCM)

The following proposed WAGCM below was raised by NGESO, this was subsequently voted upon by the Workgroup – see in particular Section 4 of this report for further details.

Annex 5: Workgroup Consultation Responses

Annex 6: Workgroup Attendance Register

The following is the attendance register for the Workgroup:

Name	Organisation	Role	22/02/17	16/03/17	17/10/18	14/01/19	01/02/19	18/02/19	13/03/19
Guy Nicholson	Statkraft	Proposer	Attended	Attended	Attended	Attended	Attended	Attended	
Simon Sheridan	National Grid System Operator	Workgroup Member	-	Attended	Attended	Attended	Attended	Attended	
Rob Wilson	National Grid System Operator	Workgroup Member	Attended	Attended	-	-	-	Attended	
Garth Graham	SSE	Workgroup Member	Attended	Attended	Attended	Attended	Attended	Attended	
Alan Creighton	Northern Powergrid	Workgroup Member	Attended	Attended	Attended	Attended	Attended	Attended	
Isaac Gutierrez	Scottish Power	Workgroup Member	Attended	Attended	Attended	Attended	Attended	-	

Annex 7: Proposer's Solution Legal Text

Annex 8: WAGCM Legal Text

