

Modification potential alternative submitted to:

GC0105

System Incidents Reporting

Purpose of alternative Proposal:

As per the original - 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. The Grid Code Review Panel felt this was necessary as it helped monitor the effectiveness of the technical requirements in the Grid Code and Distribution Code.

The alternative aim is to ensure that what the ESO has delivered in the past can be continued, but not to add additional items in which no customer benefit can be seen, or which would be better placed as an obligation on the TOs.

Date submitted to Code Administrator: Nov 2018

You are: A Workgroup member

Workgroup vote outcome: Formal alternative/not alternative

What stage is this document at?

01 Proposed alternative

02 Formal Workgroup alternative



Any Questions?

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1 Alternative proposed solution for workgroup review

This alternative was suggested at the last workgroup meeting on 16th March 2018 by National Grid (NG).

It highlights one main areas of difference to the original proposal which can be summarised as the original proposal includes new requirements and areas of reporting for National Grid which were not in the report as produced previously on an informal basis. The benefit to consumers of these additional items has not been quantified and since this will lead to extra work for which National Grid is not funded the alternative removes these requirements and instead proposes continuing with the report as has been produced previously.

2 Difference between this proposal and Original

The specific differences are as follows:

- In the original proposal NGET would be required to:
 - 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.
- NG alternative:
 - No report of this nature to be provided

The reason for not including the production of this additional report is that it is not something that NGET has ever provided previously and the benefit of sharing the information is not clear. If anything, this requirement would seem to point to a regulatory assessment of the role of the GB TOs in managing their assets rather than the SO in operating the system and therefore should not be included in a modification that is based on giving requirements for system reporting to the SO. If the value of this report could be demonstrated it would be more appropriate to take it forward as a STC change applying equally to each of the GB TOs and potentially OFTOs.

Other more minor wording changes have also been made and the final text is listed in section 6 of this proposal.

3 Justification for alternative proposal against Grid Code objectives

Impact of the modification on the Relevant Objectives:

Relevant Objective	Identified impact
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To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	Positive
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)	None
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
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
To promote efficiency in the implementation and administration of the Grid Code arrangements	Positive

In broad terms this alternative proposal would meet the same objectives to the same extent as the original, but it keeps more to the principles of the report that NGET have provided in the past since this already meets the majority of the criteria and does not add any significant additional tasks to this.

There is currently no obligation on NGET to provide this report and there is no funding for it in the regulatory settlement. The original proposal does not set out what the information will be used for, what the role of the Grid Code Review Panel is in assessing this information or what the defined benefit of this is that can then be assessed against the cost of continuing to produce it.

4 Impacts and Other Considerations

This alternative will mean only the current level of resource is required in NGET to continue producing a report that closely resembles that produced previously. The original proposal will mean more resource is required at NGET to fulfil the additional requirements and lower reporting thresholds.

Consumer Impacts

As per the original

5 Implementation

As above, the costs of producing the report in line with this alternative will not increase. The original proposal will increase costs on NGET above those currently being incurred.

Suggested that this text goes into OC3 in the Grid Code

NGET to prepare and present to the October Grid Code Review Panel every year a report titled – System Incidents Report - containing the following information:

1. A record of each of the following events on the National Electricity Transmission System::
 - a. A loss of infeed or exceed (import or export including generation, demand and interconnection) of 250MW or more.
 - b. A frequency excursion outside the operational limits (49.8-50.2Hz).
 - 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 of 250MW or more (see a)
 - ii. is linked to a change in the transmission system voltage of more than
 1. 400kV: -10% to +5% for 15mins
 2. 275kV or 132 kV: +/- 10% for 15min
 - d. Any known demand disconnected ≥ 50 MW from the National Electricity Transmission System or other lesser demand if notified to System Operator
 - e. Any Demand Control action taken each being a “Significant Event”
2. The report should include the following data in relation to each Significant Event 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 details where known
 - c. The frequency record (in table and graphical format) at ≈ 1 second intervals for 1 minute before and after the Significant Event.
 - d. The frequency (to 2 decimal places) immediately before the Significant Event.
 - e. The minimum and maximum 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 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. Clearly identify the details of the fault or directly impacted equipment
 - j. The extent of any voltage dip associated with the significant event.
 - k. An estimate of system inertia in MWs (Mega Watt seconds) at the time of the event
 - 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 report and the associated data in a spreadsheet.
- Make the report available on NGESO website
- If NGET significantly change the way they estimate system inertia, for section 2k above this will be shared in the report