

**OPERATING CODE NO. 3  
(OC3)**

**SYSTEM INCIDENTS REPORT**

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

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OC3.1 INTRODUCTION

OC3.1.1 **Operating Code No.3 ("OC3")** is concerned with the ~~annual~~ monthly publication by **The Company** of an incident report and frequency data for the **National Electricity Transmission System**.

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OC3.2 OBJECTIVE

OC3.2.1 The objective of **OC3** is for **The Company** to produce an ~~annual~~ monthly report of incidents and frequency data. The report ~~and data~~ isare important to industry and the **Grid Code Review Panel** as ~~they it help~~ they helps monitor the effectiveness of the technical requirements in the **Grid Code** and **Distribution Code**.

OC3.3 SCOPE

**OC3** applies to **The Company**.

OC3.4 SYSTEM INCIDENTS REPORT

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OC3.4.1 **The Company** shall prepare and submit to the **Grid Code Review Panel** ~~annually~~ monthly a report titled the "**System Incidents Report**", which shall contain:

Add in 1 second data (?) To be reviewed if elsewhere in the GC/elsewhere.

(a) a record of ~~each and all of any of the~~ following **Events**, ("**Significant Events**") on the **National Electricity Transmission System**:

Commented [A3]: This mod to clarify e.g. that a 250MW loss shall be reported even if the Hz report (a)(ii) is not triggered

(i) a loss of infeed or exfeed (import or export including generation, **Demand** and interconnection) of  $\geq 250\text{MW}$ ;

Commented [A4]: Added because Significant Event was capitalised but not bolded.

(ii) a frequency excursion outside the limits  $49.7590\text{--}50.2510\text{Hz}$  ~~(in accordance with the definition of Target Frequency)~~;

(iii) a fault on the **National Electricity Transmission System** which:

A. could be linked to the known or reported tripping of 250MW or more ~~of any Power Station, DC Converter or User System~~ (see as in OC3.4.1(a)(i) above); and/or

B. (as detailed in section CC6.1.4) is linked to a change in the transmission system voltage of more than

Commented [A5]: Alan asked re EC6.1.4 this does not have any more onerous conditions than CC6.1.4 so this reference is still valid/

I.  $400\text{kV}$ :  $> \pm 5\%$  for  $> 15\text{min}$ ; or

II.  $275\text{kV}$  or  $132\text{kV}$ :  $> \pm 10\%$  for  $> 15\text{min}$ ;

(iv) any known demand disconnected  $\geq 50\text{MW}$  from the **National Electricity Transmission System** or other lesser demand if notified to **The Company**; and

(v) any **Demand Control** action taken;

(b) a report of each such **Significant Event** including the following data in relation to each **Significant Event** as appropriate and available:

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(i) the time(s) in hh.mm.ss of the **Significant Event** and any potentially related occurrences;

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(ii) any known or reported loss of **Embedded Power Station(s)** with locations and ratings where available;

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(iii) the frequency record (in table and graphical format) at  $\leq 1$  second intervals for 1 minute before and 1 minute after the **Significant Event**;

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(iv) the frequency (to 2 decimal places) immediately before the **Significant Event**;

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(v) the frequency (to 2 decimal places) immediately after the **Significant Event**;

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(vi) the maximum rate of change of frequency recorded during the **Significant Event** over a specified time period e.g. 500ms;

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(vii) where known, the MW of all individual losses or trips related to the **Significant Event**;

Commented [A6]: Alan suggested this should be fixed 500ms is the ROCOF relay period, I will keep e.g. 500ms to allow for other averaging periods to be included as well if needed in future.

(viii) where known, the identity of the **Users** and **Network Operator** of all demand losses or trips related to the **Significant Event**;

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(ix) the location of any reported transmission fault on the network diagram and geographically;

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- (x) the extent of any voltage dip associated with the **Significant Event**;
  - (xi) an estimate of system inertia in MWs -at the time of the event along with how it has been calculated; and
  - (xii) any other data available that is of value to gain a clearer understanding of the **Significant Event** and its potential implications; and
- (c) an outline of progress towards reporting events and associated data on the National Electricity Transmission System including:
- (i) three phase faults;
  - (ii) three phase to earth faults;
  - (iii) phase to phase faults;
  - (iv) phase to earth faults;
  - (v) the associated voltage dips – durations and spreads;
  - (vi) over-voltages;
  - (vii) under-voltages;
  - (viii) voltage dips of >50%;
  - (ix) lightning strikes.

~~(d)~~

OC3.4.2 To obtain, manage, present, communicate and report the data in OC3.4.1 **The Company** shall:

- (a) present the **System Incidents Report** and provide the associated data in a spreadsheet format;
- (b) maintain an area of the **Website** 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); and
- (c) notify all **Electricity Distribution Licence** holders and **Network Operators** of every **Significant Event** and request information to fulfil its duties in OC3.4.1.

OC3.4.3 **The Company** shall prepare and publish the **System Incidents Report** ~~annually~~ monthly in accordance with the following timescales:

- (a) a data cut-off date of the end ~~September of each month~~ for that reporting ~~year~~ month;
- (b) data is collated, reviewed and processed in ~~October the subsequent two months~~ for a reporting ~~month~~ year;
- (c) **System Incidents Report** to be published at latest on the last first working day of the third second month after each reporting month (in other words the report for January would be published on the last first working day of March April, and so on) and submitted to the at month's next regular e Grid Code Review Panel (in other words, using the preceding example, the scheduled April GCRP meeting) November for a given year and included as part of the System Operability Framework (SOF) report. For the avoidance of doubt, if there are no incidents arising under OC3.4.1 (a)-(c) a System Incidents Report would, nevertheless, still be published stating that 'No System Incident occurred in month [X]'.

OC3.4.4

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The Company shall prepare and publish a-on the Website the **Historic System Frequency Data Report** monthly, in a spreadsheet form, recording a-system second by second frequency data at a maximum of one second intervals for the whole month figure from midnight on the first day of each calendar month to midnight on the first day of next calendar month in accordance with the following timescales;

- (a) a data cut-off date of the end of each month for that reporting month;
- (b) data is collated, reviewed and processed in the subsequent ten working days after the end of the reporting month;
- (c) ~~System Frequency Report~~**Historic Frequency Data** to be published on the eleventh working day after each reporting month (in other words the report for January would be published on the eleventh working day of February, and so on).

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**Commented [A9]:** See web site <https://www.nationalgrideso.com/balancing-services/frequency-response-services/historic-frequency-data>

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