

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 monthly publication by **The Company** of an incident report and **Frequency** data for the **National Electricity Transmission System**.

OC3.2 OBJECTIVE

OC3.2.1 The objective of **OC3** is for **The Company** to produce a monthly report of incidents and frequency data. The report and data are important to industry and the **Grid Code Review Panel** as they help 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

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

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

- (i) a loss of infeed or exfeed (import or export including generation, **Demand** and interconnection) of $\geq 250\text{MW}$;
- (ii) a **Frequency** excursion outside the limits 49.7-50.3Hz;
- (iii) a fault on the **National Electricity Transmission System** which:
 - A. could be linked to the known or reported tripping of 250MW or more as reported in (i) above; and/or
 - B. (as detailed in section CC6.1.4) is linked to a change in the **Transmission System** voltage of
 - I. 300kV or greater: $> \pm 5\%$ for $> 15\text{min}$; or
 - II. 132kV up to 300kV: $> \pm 10\%$ 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:

- (i) the time(s) in hh.mm.ss of the **Significant Event** and any potentially related occurrences;
- (ii) any known or reported loss of **Embedded Power Station(s)** with locations and ratings where available;
- (iii) the **Frequency** record (in table and graphical format) at ≤ 1 second intervals for 1 minute before and 1 minute after the **Significant Event**;
- (iv) the **Frequency** (to 2 decimal places) immediately before the **Significant Event**;
- (v) the **Frequency** (to 2 decimal places) immediately after the **Significant Event**;
- (vi) the maximum rate of change of **Frequency** recorded during the **Significant Event** over a specified time period of 500ms;

- (vii) where known, the MW of all individual losses or trips related to the **Significant Event**;
 - (viii) where known, the identity of the **Users** and **Network Operator** of all demand losses or trips related to the **Significant Event**;
 - (ix) the location of any reported **Transmission** fault on the network diagram and geographically;
 - (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 **Significant 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%; and
 - (ix) lightning strikes.

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, in an annex, associated data in 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** monthly 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 two months for a reporting month;
- (c) **System Incidents Report** to be published at latest on the last working day of the second month after each reporting month (in other words the report for January would be published on the last working day of March, and so on) and submitted to the next regular **Grid Code Review Panel**. 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 **The Company** shall prepare and publish monthly on the **Website**, in a spreadsheet form, **System Frequency** data at a maximum of one second intervals for the whole month (**Historic Frequency Data**) 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) **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).

OC3.4.5 **The Company** will use best endeavours to provide a report or reports (based on either the historic reporting methodology, or on the **Significant Incidents Reports** methodology, or a mix of the two), on events for the period from 1 November 2017 until the first **System Incidents Report** pursuant to this **Operating Code**, such a report or reports to be made available within 4 months of implementation date of the modification.

OC3.5 REPORTING ON FAULT EVENTS

OC3.5.1 **The Company** shall prepare and publish on their website a report giving date, time and location of actual three phase, three phase to earth, phase to phase and phase to earth fault events on the **National Electricity Transmission System**. Information shall be published as soon as reasonably practicable following such an event. For faults in which a fault ride through issue was found, where available, appropriate waveform information will be provided.

OC3.6 REPORTING ON LEARNING

OC3.6.1 Where the analysis of events occurring on the **National Electricity Transmission System** as set out in OC3.5.1 gives rise to learning points which **The Company** believes are relevant to the industry, **The Company** will publish a report explaining the events, the analysis and information gained as applicable. The contents of the report will be anonymised to avoid identification of **Users**, connection sites and manufacturers of **Plant** and **Apparatus** except in circumstances where OC3.6.2 applies. Where information sourced from **Users** or manufacturers is included, permission will be sought before publication.

OC3.6.2 Where **The Company** believes that it is appropriate to identify a particular **User**, connection site or **Plant** and **Apparatus**, **The Company** shall in the first instance consult the relevant **User** and/or manufacturer as applicable to seek agreement for publication.

OC3.6.3 If permission for publication is not granted by the **User** and/or manufacturer and **The Company** believes that it is appropriate to identify a particular **User**, connection site or **Plant** and **Apparatus**, **The Company** may ask the **Authority** for guidance regarding publication.

< END OF OPERATING CODE NO. 3 >