

OPERATING CODE NO. 12

(OC12)

SYSTEM TESTS

CONTENTS

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

<u>Paragraph No/Title</u>	<u>Page Number</u>
OC12.1 INTRODUCTION.....	2
OC12.2 OBJECTIVE	2
OC12.3 SCOPE.....	2
OC12.4 PROCEDURE	3
OC12.4.1 Proposal Notice	3
OC12.4.2 Preliminary Notice And Establishment Of Test Panel	3
OC12.4.3 Test Panel	4
OC12.4.4 Proposal Report.....	5
OC12.4.5 Test Programme.....	6
OC12.4.6 Final Report	6
OC12.4.7 Timetable Reduction.....	6

OC12.1 INTRODUCTION

OC12.1.1 **Operating Code No.12 ("OC12")** relates to **System Tests**, which are tests which involve simulating conditions or the controlled application of irregular, unusual or extreme conditions, on the **Total System** or any part of the **Total System**, but which do not include commissioning or recommissioning tests or any other tests of a minor nature.

OC12.1.2 **OC12** deals with the responsibilities and procedures for arranging and carrying out **System Tests** which have (or may have) an effect on the **Systems** of [NGET-NGESO](#) and **Users** and/or on the **System** of any **Externally Interconnected System Operator**. Where a **System Test** proposed by a **User** will have no effect on the **National Electricity Transmission System**, then such a **System Test** does not fall within **OC12** and accordingly **OC12** shall not apply to it. A **System Test** proposed by [NGET-NGESO](#) which will have an effect on the **System** of a **User** will always fall within **OC12**.

OC12.2 OBJECTIVE

The overall objectives of **OC12** are:

OC12.2.1 to ensure, so far as possible, that **System Tests** proposed to be carried out either by:

- (a) a **User** (or certain persons in respect of **Systems Embedded** within a **Network Operator's System**) which may have an effect on the **Total System** or any part of the **Total System** (in addition to that **User's System**) including the **National Electricity Transmission System**; or
- (b) by [NGET-NGESO](#) which may have an effect on the **Total System** or any part of the **Total System** (in addition to the **National Electricity Transmission System**)

do not threaten the safety of either their personnel or the general public, cause minimum threat to the security of supplies and to the integrity of **Plant** and/or **Apparatus**, and cause minimum detriment to [NGET-NGESO](#) and **Users**;

OC12.2.2 to set out the procedures to be followed for establishing and reporting **System Tests**.

OC12.3 SCOPE

OC12 applies to [NGET-NGESO](#) and to **Users**, which in **OC12** means:-

- (a) **Generators** other than in respect of Embedded Medium Power Stations and Embedded Small Power Stations (and the term Generator in OC12 shall be constructed accordingly);
- (b) **Network Operators**;
- (c) **Non-Embedded Customers**; and
- (d) **DC Converter Station** owners other than in respect of **Embedded DC Converter Stations**.

The procedure for the establishment of **System Tests** on the **National Electricity Transmission System**, with **Externally Interconnected System Operators** which do not affect any **User**, is set out in the **Interconnection Agreement** with each **Externally Interconnected System Operator**. The position of **Externally Interconnected System Operators** and **Interconnector Users** is also referred to in OC12.4.2.

OC12.3.2 Each **Network Operator** will liaise within [NGET-NGESO](#) as necessary in those instances where an **Embedded Person** intends to perform a **System Test** which may have an effect on the **Total System** or any part of the **Total System** (in addition to that **Generator's** or other **User's System**) including the **National Electricity Transmission System**. [NGET-NGESO](#) is not required to deal with such persons.

OC12.3.3 Each Network Operator shall be responsible for co-ordinating with the Embedded Person or such other person and assessing the effect of any System Tests upon:

- (a) any **Embedded Medium Power Station, Embedded Small Power Stations** or **Embedded DC Converter Station** within the **Network Operator's System**; or
- (b) any other **User** connected to or within the **Network Operator's System**.

NGET-NGESO is not required to deal with such persons.

OC12.4 PROCEDURE

OC12.4.1 Proposal Notice

OC12.4.1.1 Where a **User** (or in the case of a **Network Operator**, a person in respect of **Systems Embedded** within its **System**, as the case may be) has decided that it would like to undertake a **System Test** it shall submit a notice (a "**Proposal Notice**") to **NGET-NGESO** at least twelve months in advance of the date it would like to undertake the proposed **System Test**.

OC12.4.1.2 The **Proposal Notice** shall be in writing and shall contain details of the nature and purpose of the proposed **System Test** and shall indicate the extent and situation of the **Plant** and/or **Apparatus** involved.

OC12.4.1.3 If **NGET-NGESO** is of the view that the information set out in the **Proposal Notice** is insufficient, it will contact the person who submitted the **Proposal Notice** (the "**Test Proposer**") as soon as reasonably practicable, with a written request for further information. **NGET-NGESO** will not be required to do anything under **OC12** until it is satisfied with the details supplied in the **Proposal Notice** or pursuant to a request for further information.

OC12.4.1.4 If **NGET-NGESO** wishes to undertake a **System Test**, **NGET-NGESO** shall be deemed to have received a **Proposal Notice** on that **System Test**

OC12.4.1.5 Where, under **OC12**, **NGET-NGESO** is obliged to notify or contact the **Test Proposer**, **NGET-NGESO** will not be so obliged where it is **NGET-NGESO** that has proposed the **System Test**. **Users** and the **Test Panel**, where they are obliged under **OC12** to notify, send reports to or otherwise contact both **NGET-NGESO** and the **Test Proposer**, need only do so once where **NGET-NGESO** is the proposer of the **System Test**.

OC12.4.2 Preliminary Notice And Establishment Of Test Panel

OC12.4.2.1 Using the information supplied to it under OC12.4.1 **NGET-NGESO** will determine, in its reasonable estimation, which **Users**, other than the **Test Proposer**, may be affected by the proposed **System Test**. If **NGET-NGESO** determines, in its reasonable estimation, that an **Externally Interconnected System Operator** and/or **Interconnector User** (or **Externally Interconnected System Operators** and/or **Interconnector Users**) may be affected by the proposed **System Test**, then (provided that the **Externally Interconnected System Operator** and/or **Interconnector User** (or each **Externally Interconnected System Operator** and/or **Interconnector User** where there is more than one affected) undertakes to all the parties to the **Grid Code** to be bound by the provisions of the **Grid Code** for the purposes of the **System Test**) for the purposes of the remaining provisions of this **OC12**, that **Externally Interconnected System Operator** and/or **Interconnector User** (or each of those **Externally Interconnected System Operators** and/or **Interconnector Users**) will be deemed to be a **User** and references to the **Total System** or to the **Plant** and/or **Apparatus** of a **User** will be deemed to include a reference to the **Transmission** or distribution **System** and **Plant** and/or **Apparatus** of that **Externally Interconnected System Operator** and/or **Interconnector User** or (as the case may be) those **Externally Interconnected System Operators** and/or **Interconnector Users**. In the event that the **Externally Interconnected System Operator** and/or **Interconnector User** (or any of the **Externally Interconnected System Operators** and/or **Interconnector Users** where there is more than one affected) refuses to so undertake, then the **System Test** will not take place.

- OC12.4.2.2 **NGET-NGESO** will appoint a person to co-ordinate the **System Test** (a "**Test Co-ordinator**") as soon as reasonably practicable after it has, or is deemed to have, received a **Proposal Notice** and in any event prior to the distribution of the **Preliminary Notice** referred to below. The **Test Co-ordinator** shall act as Chairman of the **Test Panel** and shall be an ex-officio member of the **Test Panel**.
- (a) Where **NGET-NGESO** decides, in its reasonable opinion, that the **National Electricity Transmission System** will or may be significantly affected by the proposed **System Test**, then the **Test Co-ordinator** will be a suitably qualified person nominated by **NGET-NGESO** after consultation with the **Test Proposer** and the **Users** identified under OC12.4.2.1.
 - (b) Where **NGET-NGESO** decides, in its reasonable opinion, that the **National Electricity Transmission System** will not be significantly affected by the proposed **System Test**, then the **Test Co-ordinator** will be a suitably qualified person nominated by the **Test Proposer** after consultation with **NGET-NGESO**.
 - (c) **NGET-NGESO** will, as soon as reasonably practicable after it has received, or is deemed to have received, a **Proposal Notice**, contact the **Test Proposer** where the **Test Co-ordinator** is to be a person nominated by the **Test Proposer** and invite it to nominate a person as **Test Co-ordinator**. If the **Test Proposer** is unable or unwilling to nominate a person within seven days of being contacted by **NGET-NGESO** then the proposed **System Test** will not take place.
- OC12.4.2.3 **NGET-NGESO** will notify all **Users** identified by it under OC12.4.2.1 of the proposed **System Test** by a notice in writing (a "**Preliminary Notice**") and will send a **Preliminary Notice** to the **Test Proposer**. The **Preliminary Notice** will contain:
- (a) the details of the nature and purpose of the proposed **System Test**, the extent and situation of the **Plant** and/or **Apparatus** involved and the identity of the **Users** identified by **NGET-NGESO** under OC12.4.2.1 and the identity of the **Test Proposer**;
 - (b) an invitation to nominate within one month a suitably qualified representative (or representatives, if the **Test Co-ordinator** informs **NGET-NGESO** that it is appropriate for a particular **User** including the **Test Proposer**) to be a member of the **Test Panel** for the proposed **System Test**;
 - (c) the name of the **NGET-NGESO** representative (or representatives) on the **Test Panel** for the proposed **System Test**; and
 - (d) the name of the **Test Co-ordinator** and whether he was nominated by the **Test Proposer** or by **NGET-NGESO**.
- OC12.4.2.4 The **Preliminary Notice** will be sent within one month of the later of either the receipt by **NGET-NGESO** of the **Proposal Notice**, or of the receipt of any further information requested by **NGET-NGESO** under OC12.4.1.3. Where **NGET-NGESO** is the proposer of the **System Test**, the **Preliminary Notice** will be sent within one month of the proposed **System Test** being formulated.
- OC12.4.2.5 Replies to the invitation in the **Preliminary Notice** to nominate a representative to be a member of the **Test Panel** must be received by **NGET-NGESO** within one month of the date on which the **Preliminary Notice** was sent to the **User** by **NGET-NGESO**. Any **User** which has not replied within that period will not be entitled to be represented on the **Test Panel**. If the **Test Proposer** does not reply within that period, the proposed **System Test** will not take place and **NGET-NGESO** will notify all **Users** identified by it under OC12.4.2.1 accordingly.
- OC12.4.2.6 **NGET-NGESO** will, as soon as possible after the expiry of that one month period, appoint the nominated persons to the **Test Panel** and notify all **Users** identified by it under OC12.4.2.1 and the **Test Proposer**, of the composition of the **Test Panel**.
- OC12.4.3 Test Panel
- OC12.4.3.1 A meeting of the **Test Panel** will take place as soon as possible after **NGET-NGESO** has notified all **Users** identified by it under OC12.4.2.1 and the **Test Proposer** of the composition of the **Test Panel**, and in any event within one month of the appointment of the **Test Panel**.

- OC12.4.3.2 The **Test Panel** shall consider:
- (a) the details of the nature and purpose of the proposed **System Test** and other matters set out in the **Proposal Notice** (together with any further information requested by **NGET NGESO** under OC12.4.1.3);
 - (b) the economic, operational and risk implications of the proposed **System Test**;
 - (c) the possibility of combining the proposed **System Test** with any other tests and with **Plant** and/or **Apparatus** outages which arise pursuant to the **Operational Planning** requirements of **NGET NGESO** and **Users**; and
 - (d) implications of the proposed **System Test** on the operation of the **Balancing Mechanism**, in so far as it is able to do so.
- OC12.4.3.3 **Users** identified by **NGET NGESO** under OC12.4.2.1, the **Test Proposer** and **NGET NGESO** (whether or not they are represented on the **Test Panel**) shall be obliged to supply that **Test Panel**, upon written request, with such details as the **Test Panel** reasonably requires in order to consider the proposed **System Test**.
- OC12.4.3.4 The **Test Panel** shall be convened by the **Test Co-ordinator** as often as he deems necessary to conduct its business.
- OC12.4.4 Proposal Report
- OC12.4.4.1 Within two months of first meeting the **Test Panel** will submit a report (a "**Proposal Report**"), which will contain:
- (a) proposals for carrying out the **System Test** (including the manner in which the **System Test** is to be monitored);
 - (b) an allocation of costs (including un-anticipated costs) between the affected parties (the general principle being that the **Test Proposer** will bear the costs); and
 - (c) such other matters as the **Test Panel** considers appropriate.
- The **Proposal Report** may include requirements for indemnities (including an indemnity from the relevant **Network Operator** to **NGET NGESO** and other **Users** in relation to its **Embedded Persons**) to be given in respect of claims and losses arising from the **System Test**. All **System Test** procedures must comply with all applicable legislation.
- OC12.4.4.2 If the **Test Panel** is unable to agree unanimously on any decision in preparing its **Proposal Report**, the proposed **System Test** will not take place and the **Test Panel** will be dissolved.
- OC12.4.4.3 The **Proposal Report** will be submitted to **NGET NGESO**, the **Test Proposer** and to each **User** identified by **NGET NGESO** under OC12.4.2.1.
- OC12.4.4.4 Each recipient will respond to the **Test Co-ordinator** with its approval of the **Proposal Report** or its reason for non-approval within fourteen days of receipt of the **Proposal Report**. If any recipient does not respond, the **System Test** will not take place and the **Test Panel** will be dissolved.
- OC12.4.4.5 In the event of non-approval by one or more recipients, the **Test Panel** will meet as soon as practicable in order to determine whether the proposed **System Test** can be modified to meet the objection or objections.
- OC12.4.4.6 If the proposed **System Test** cannot be so modified, the **System Test** will not take place and the **Test Panel** will be dissolved.
- OC12.4.4.7 If the proposed **System Test** can be so modified, the **Test Panel** will, as soon as practicable, and in any event within one month of meeting to discuss the responses to the **Proposal Report**, submit a revised **Proposal Report** and the provisions of OC12.4.4.3 and OC12.4.4.4 will apply to that submission.
- OC12.4.4.8 In the event of non-approval of the revised **Proposal Report** by one or more recipients, the **System Test** will not take place and the **Test Panel** will be dissolved.

OC12.4.5 Test Programme

OC12.4.5.1 If the **Proposal Report** (or, as the case may be, the revised **Proposal Report**) is approved by all recipients, the proposed **System Test** can proceed and at least one month prior to the date of the proposed **System Test**, the **Test Panel** will submit to [NGETNGESO](#), the **Test Proposer** and each **User** identified by [NGET-NGESO](#) under OC12.4.2.1, a programme (the "**Test Programme**") stating the switching sequence and proposed timings of the switching sequence, a list of those staff involved in carrying out the **System Test** (including those responsible for site safety) and such other matters as the **Test Panel** deems appropriate.

OC12.4.5.2 The **Test Programme** will, subject to OC12.4.5.3, bind all recipients to act in accordance with the provisions of the **Test Programme** in relation to the proposed **System Test**.

OC12.4.5.3 Any problems with the proposed **System Test** which arise or are anticipated after the issue of the **Test Programme** and prior to the day of the proposed **System Test**, must be notified to the **Test Co-ordinator** as soon as possible in writing. If the **Test Co-ordinator** decides that these anticipated problems merit an amendment to, or postponement of, the **System Test**, he shall notify the **Test Proposer** (if the **Test Co-ordinator** was not appointed by the **Test Proposer**), [NGET-NGESO](#) and each **User** identified by [NGET-NGESO](#) under OC12.4.2.1 accordingly.

OC12.4.5.4 If on the day of the proposed **System Test**, operating conditions on the **Total System** are such that any party involved in the proposed **System Test** wishes to delay or cancel the start or continuance of the **System Test**, they shall immediately inform the **Test Co-ordinator** of this decision and the reasons for it. The **Test Co-ordinator** shall then postpone or cancel, as the case may be, the **System Test** and shall, if possible, agree with the **Test Proposer** (if the **Test Co-ordinator** was not appointed by the **Test Proposer**), [NGET-NGESO](#) and all **Users** identified by [NGET-NGESO](#) under OC12.4.2.1 another suitable time and date. If he cannot reach such agreement, the **Test Co-ordinator** shall reconvene the **Test Panel** as soon as practicable, which will endeavour to arrange another suitable time and date for the **System Test**, in which case the relevant provisions of **OC12** shall apply.

OC12.4.6 Final Report

OC12.4.6.1 At the conclusion of the **System Test**, the **Test Proposer** shall be responsible for preparing a written report on the **System Test** (the "**Final Report**") for submission to [NGET-NGESO](#) and other members of the **Test Panel**. The **Final Report** shall be submitted within three months of the conclusion of the **System Test** unless a different period has been agreed by the **Test Panel** prior to the **System Test** taking place.

OC12.4.6.2 The **Final Report** shall not be submitted to any person who is not a member of the **Test Panel** unless the **Test Panel**, having considered the confidentiality issues arising, shall have unanimously approved such submission.

OC12.4.6.3 The **Final Report** shall include a description of the **Plant** and/or **Apparatus** tested and a description of the **System Test** carried out, together with the results, conclusions and recommendations.

OC12.4.6.4 When the **Final Report** has been prepared and submitted in accordance with OC12.4.6.1, the **Test Panel** will be dissolved.

OC12.4.7 Timetable Reduction

OC12.4.7.1 In certain cases a **System Test** may be needed on giving less than twelve months notice. In that case, after consultation with the **Test Proposer** and **User(s)** identified by [NGET-NGESO](#) under OC12.4.2.1, [NGET-NGESO](#) shall draw up a timetable for the proposed **System Test** and the procedure set out in OC12.4.2 to OC12.4.6 shall be followed in accordance with that timetable.

< END OF OPERATING CODE NO. 12 >