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24 June 2005

Dear Ben

STANDARD CONDITION C14 : TRANSMISSION LICENCE, LICENSEE'S GRID CODE

Decision in relation to consultation A/05 "Grid Code changes consequential to CUSC Amendment Proposal CAP076 – Treatment of System to Generator Intertripping Schemes"

Further to the email from Mr David Payne to Mrs Bridget Morgan dated 20 June 2005, I would like to confirm that the Appendix 1 attached to the decision letter in relation to the above Grid Code changes (reference blm/I 001) contained a typographical error in BC.2.A.2.1. I apologise for any confusion that this may have caused. I have attached a corrected version of the Appendix 1 for your information which I would be grateful if you would publish alongside the decision letter on the NGC website.

Please do not hesitate to contact me on the above number if you have any queries in relation to this letter or alternatively contact Bridget Morgan on 020 7901 7080.

Yours sincerely

John Scott
Technical Director

Signed on behalf of the Authority and authorised for that purpose by the Authority

cc: David Payne, GCRP Secretary

Appendix 1 – Amendment to Changes Proposed in the Report to the Authority Arising from Consultation A/05 (“Grid Code changes consequential to CUSC Amendment Proposal CAP076 – Treatment of System to Generator Intertripping Schemes”)

Extract from the Glossary And Definitions

<u>Category 1 Intertripping Scheme</u>	<u>A System to Generator Operational Intertripping Scheme arising from a Variation to Connection Design following a request from the relevant User which is consistent with the criteria specified in the Security and Quality of Supply Standard.</u>
<u>Category 2 Intertripping Scheme</u>	<u>A System to Generator Operational Intertripping Scheme which is:-</u> <u>(i) required to alleviate an overload on a circuit which connects the Group containing the User’s Connection Site to the GB Transmission System; and</u> <u>(ii) installed in accordance with the requirements of the planning criteria of the Security and Quality of Supply Standard in order that measures can be taken to permit maintenance access for each transmission circuit and for such measures to be economically justified,</u> <u>and the operation of which results in a reduction in Active Power on the overloaded circuits which connect the User’s Connection Site to the rest of the GB Transmission System which is equal to the reduction in Active Power from the Connection Site (once any system losses or third party system effects are discounted).</u>
<u>Category 3 Intertripping Scheme</u>	<u>A System to Generator Operational Intertripping Scheme which, where agreed by NGC and the User, is installed to alleviate an overload on, and as an alternative to, the reinforcement of a third party system, such as the Distribution System of a Public Distribution System Operator.</u>
<u>Category 4 Intertripping Scheme</u>	<u>A System to Generator Operational Intertripping Scheme installed to enable the disconnection of the Connection Site from the GB Transmission System in a controlled and efficient manner in order to facilitate the timely restoration of the GB Transmission System.</u>
<u>Group</u>	<u>Those GB Transmission System sub-stations bounded solely by the faulted circuit(s) and the overloaded circuit(s) excluding any third party connections between the Group and the rest of the GB Transmission System, the faulted circuit(s) being a Secured Event.</u>

Secured Event Has the meaning set out in the **Security and Quality of Supply Standard**.

Security and Quality of Supply Standard The version of the document entitled ‘Security and Quality of Supply Standard’ established pursuant to the **Transmission Licence** in force at the time of entering into the relevant **Bilateral Agreement**.

System to Generator Operational Intertripping A **Balancing Service** involving the initiation by a **System to Generator Operational Intertripping Scheme** of automatic tripping of the **User’s** circuit breaker(s) resulting in the tripping of **BM Unit(s)** or (where relevant) **Generating Unit(s)** comprised in a **BM Unit** to prevent abnormal system conditions occurring, such as over voltage, overload, **System** instability, etc, after the tripping of other circuit-breakers following power **System** fault(s);

System to Generator Operational Intertripping Scheme A **System to Generating Unit** or **System to CCGT Module Intertripping Scheme** forming a condition of connection and specified in Appendix F3 of the relevant **Bilateral Agreement**, being either a **Category 1 Intertripping Scheme**, **Category 2 Intertripping Scheme**, **Category 3 Intertripping Scheme** or **Category 4 Intertripping Scheme**.

Extract from the Connection Conditions

CC.6.2.3.2 Fault Disconnection Facilities

- (a) Where no **Transmission** circuit breaker is provided at the **User's** connection voltage, the **User** must provide **NGC** with the means of tripping all the **User's** circuit breakers necessary to isolate faults or **System** abnormalities on the **GB Transmission System**. In these circumstances, for faults on the **User's System**, the **User's Protection** should also trip higher voltage **Transmission** circuit breakers. These tripping facilities shall be in accordance with the requirements specified in the **Bilateral Agreement**.
- (b) **NGC** may require the installation of a **System to Generator Operational Intertripping Scheme** in order to enable the timely restoration of circuits following power **System** fault(s). These requirements shall be set out in the relevant **Bilateral Agreement**.

...

System to Generator Operational Intertripping Scheme

CC.6.3.17 NGC may require that a **System to Generator Operational Intertripping Scheme** be installed as part of a condition of the connection of the **Generator**. **Scheme specific details shall be included in the relevant **Bilateral Agreement**.**

...

CC.8.1 System Ancillary Services

The **CC** contain requirements for the capability for certain **Ancillary Services**, which are needed for **System** reasons...

Part 2

(c) **Frequency Control** by means of **Fast Start** - CC.6.3.14

(d) **Black Start Capability** - CC.6.3.5

(e) **System to Generator Operational Intertripping**

Extract from OC2

OC2.4.1.3.2 In each calendar year:

...

(e) By the end of week 34

NGC will draw up a draft **GB Transmission System** outage plan covering the period Years 2 to 5 ahead and **NGC** will notify each **Generator** and **Network Operator** in writing of those aspects of the plan which may operationally affect such **Generator** (other than those aspects which may operationally affect **Embedded Small Power Stations** or **Embedded Medium Power Stations**) or **Network Operator**. **NGC** will also indicate where a need may exist to issue other operational instructions or notifications (including but not limited to the requirement for the arming of an **Operational Intertripping scheme**) or **Emergency Instructions** to **Users** in accordance with **BC2** to allow the security of the **GB Transmission System** to be maintained within the **Licence Standards**.

OC2.4.1.3.3 **Operational Planning Phase** - Planning for **Financial Year 1** ahead

...

(h) By the end of week 49

...

- (ii) **NGC** will notify each **Generator** and each **Network Operator** in writing of those aspects of the plan which may operationally affect such **Generator** (other than those aspects which may operationally affect **Embedded Small Power Stations** or **Embedded Medium Power Stations**) or **Network Operator** including in particular proposed start dates and end dates of relevant **GB Transmission System** outages. **NGC** will also indicate where a need may exist to issue other operational instructions or notifications (including but not limited to the requirement for the arming of an **Operational Intertripping scheme**) or **Emergency Instructions to Users** in accordance with **BC2** to allow the security of the **GB Transmission System** to be maintained within the **Licence Standards**. **NGC** will also inform each relevant **Non-Embedded Customer** of the aspects of the plan which may affect it.

OC2.4.1.3.4 **Operational Planning Phase - Planning in Financial Year 0 down to the Programming Phase (and in the case of load transfer capability, also during the Programming Phase)**

(d) ...

- (iii) The provisions of OC2.4.1.3.3(i)(z)(2), (3) and (5) shall apply to the provision of data under this part of OC2.4.1.3.4(d) as if set out in full.

NGC will also indicate where a need may exist to issue other operational instructions or notifications (including but not limited to the requirement for the arming of an **Operational Intertripping scheme**) or **Emergency Instructions to Users** in accordance with **BC2** to allow the security of the **GB Transmission System** to be maintained within the **Licence Standards**.

OC2.4.1.3.5 **Programming Phase**

(a) By ...

- (ii) **NGC** will notify each **Generator**...
... and (y) (if OC2.4.1.3.3(i)(z) does not apply).

NGC will also indicate where a need may exist to ~~use~~arm an **Operational Intertripping scheme**, emergency switching, emergency **Demand** management or other measures including the issuing of other operational instructions or notifications or **Emergency Instructions to Users** in accordance with **BC2** to allow the security of the **GB Transmission System** to be maintained within the **Licence Standards**.

Extract from BC1

BC1.7 Special Actions

- BC1.7.1 **NGC** may need to identify special actions (either pre- or post-fault) that need to be taken by specific **Users** in order to maintain the integrity of the **GB Transmission System** in accordance with the **Licence Standards** and **NGC Operational Strategy**.
- (a) For a **Generator** special actions will generally involve a **Load** change or a change of required Notice to Deviate from Zero NDZ, in a specific timescale on individual or groups of **Gensets**. ~~They may also include selection of "System to Genset" or "System to CCGT Unit", as the case may be, intertrip schemes for stability or thermal reasons.~~

Extract from BC2

- BC2.5.2.3 **BM Participants** must only **Synchronise** or **De-Synchronise BM Units** (or in the case of a **Cascade Hydro Scheme** a **Generating Unit**);
- (a) at the times indicated to **NGC**, or
- (b) at times consistent with variations in output or input arising from provisions described in BC2.5.1,
- (within a tolerance of +/- 5 minutes) or unless that occurs automatically as a result of ~~intertrip schemes~~ **Operational Intertripping** or **Low Frequency Relay** operations or an **Ancillary Service** pursuant to an **Ancillary Services Agreement**. ~~For a **BM Unit** in relation to which the intertrip has been instructed to be switched into service under BC2.10 in order to protect the **GB Transmission System**, if it is **De-Synchronised** due to an operation of the intertrip that is not due to a fault at the **BM Unit** then a **Bid-Offer Acceptance** will be treated as having been issued. This will reflect the operation of the intertrip in order to form the **Bid-Offer Acceptance** data to be given to the **BMRA** under the **BSC**.~~

...

- BC2.5.3.1 At any time, any **BM Participant** (or the relevant person on its behalf) may, in respect of any of its **BM Units**, submit to **NGC** the data listed in **BC1**, Appendix 1 under the heading of **Dynamic Parameters** from the **Control Point** of its **BM Unit** to amend the data already held by **NGC** (including that previously submitted under this BC2.5.3.1) for use in preparing for and operating the **Balancing Mechanism**. The change will take effect from the time that it is received by **NGC**. For the avoidance of doubt, the **Dynamic Parameters** submitted to **NGC** under BC1.4.2(e) are not used within the current **Operational Day**. The **Dynamic Parameters** submitted under this BC2.5.3.1 shall reasonably reflect the true current operating characteristics of the **BM Unit** and shall be prepared in accordance with **Good Industry Practice**.

Following the **Operational Intertripping** of a **System to Generating Unit** or a **System to CCGT Module**, the **BM Participant** shall as soon as reasonably practicable re-declare its MEL to reflect more accurately its output capability.

...

BC2.8.1 Call-off of **Ancillary Services** by **NGC**

(a) **Ancillary Service** instructions may be issued at any time.

...

(f) **A System to Generator Operational Intertripping Scheme** will be armed in accordance with BC2.10.2 (a)

...

BC2.9.3.2 In the case of a **Generator**, **Emergency Instructions** may include:

(a) an instruction to trip one or more **Gensets** (excluding **Operational Intertripping**); or

...

BC2.10.2 Such instructions or notifications may include:

Intertrips

(a) an instruction to arm or disarm ~~switch into or out of service~~ an **Operational Intertripping** scheme;

...

BC2.10.3 Where an instruction or notification under BC2.10.2 ~~(a)~~-(c) or (d) results in a change to the input or output level of the **BM Unit** then **NGC** shall issue a **Bid-Offer Acceptance** or **Emergency Instruction** as appropriate.

...

Appendix 2 - Type and Form of **Ancillary Service** Instructions

BC2.A.2.1 This part of the Appendix consists of a non-exhaustive list of the forms and types of instruction for a **Genset** to provide **System Ancillary Services**. There may be other types of **Commercial Ancillary Services** and these will be covered in the relevant **Ancillary Services Agreement**. In respect of the provision of **Ancillary Services** by **Generating Units** the forms and types of instruction will be in the form of this Appendix 2 unless amended in the **Ancillary Services Agreement**.

As described in CC.8, **System Ancillary Services** consist of Part 1 and Part 2 **System Ancillary Services**.

...

Part 2 System Ancillary Services comprise:

- (c) **Frequency Control by means of Fast Start.**
- (d) **Black Start Capability**
- (e) **System to Generator Operational Intertipping**