BALANCING CODE NO. 3

# (BC3)

**FREQUENCY CONTROL PROCESS CONTENTS**

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

Paragraph No/Title Page Number

[BC3.1 INTRODUCTION 2](#_bookmark0)

[BC3.2 OBJECTIVE 2](#_bookmark1)

[BC3.3 SCOPE 2](#_bookmark2)

[BC3.4 MANAGING SYSTEM FREQUENCY 3](#_bookmark3)

[BC3.4.1 Statutory Requirements 3](#_bookmark4)

[BC3.4.2 Target Frequency 3](#_bookmark5)

[BC3.4.3 Electric Time 3](#_bookmark6)

[BC3.5 RESPONSE FROM GENSETS 3](#_bookmark7)

[BC3.5.1 Capability 3](#_bookmark8)

[BC3.5.2 Limited Frequency Sensitive Mode 3](#_bookmark9)

[BC3.5.3 Existing Gas Cooled Reactor Plant /Power Park Modules before 1 January 2006 3](#_bookmark10)

[BC3.5.4 Frequency Sensitive Mode 4](#_bookmark11)

[BC3.5.5 System Frequency Induced Change 4](#_bookmark12)

[BC3.6 RESPONSE TO LOW FREQUENCY 5](#_bookmark13)

[BC3.6.1 Low Frequency Relay Initiated Response From Gensets 5](#_bookmark14)

[BC3.6.2 Low Frequency Relay Initiated Response From Demand 5](#_bookmark15)

[BC3.7 RESPONSE TO HIGH FREQUENCY REQUIRED FROM SYNCHRONISED. GENSETS 6](#_bookmark16)

[BC3.7.1 Plant In Frequency Sensitive Mode Instructed To Provide High Frequency Response 7](#_bookmark17)

[BC3.7.2 Plant In Limited Frequency Sensitive Mode 7](#_bookmark17)

[BC3.7.3 Plant Operation To Below Minimum Generation 7](#_bookmark18)

[BC3.7.5 Information Update To The Company 8](#_bookmark19)

[BC3.7.6 Existing Gas Cooled Reactor Plant /Power Park Modules Before 1 January 2006 9](#_bookmark20)

[BC3.7.7 Externally Interconnected System Operators 9](#_bookmark21)

## BC3.1 INTRODUCTION

BC3.1.1 **BC3** sets out the procedure for **The Company** to use in relation to **EU Code Users** and **GB Code Users** to undertake **System Frequency** control. **System Frequency** will be controlled by response from **Gensets** (and **DC Converters** at **DC Converter Stations** and **HVDC Systems**) operating in **Limited Frequency Sensitive Mode** or **Frequency Sensitive Mode**, by the issuing of instructions to **Gensets** (and **DC Converters** at **DC Converter Stations** and **HVDC Systems**) and by control of **Demand**. The requirements for **Frequency** control are determined by the consequences and effectiveness of the **Balancing Mechanism**, and accordingly, **BC3** is complementary to **BC1** and **BC2**.

BC3.1.2 Inter-Relationship With Ancillary Services

The provision of response (other than by operation in **Limited Frequency Sensitive Mode** or in accordance with BC3.7.1(c)) in order to contribute towards **Frequency** control, as described in **BC3**, by **Generators** or **DC Converter Station** owners or **HVDC System Owners** will be an **Ancillary Service**. **Ancillary Services** are divided into three categories, **System Ancillary Services** Parts 1 and 2 and **Commercial Ancillary Services**. **Syste m Ancillary Services**, Parts 1 and 2, are those **Ancillary Services** listed in CC.8.1 (as applicable to **GB Code Users**) or ECC8.1 (as applicable to **EU Code Users**); those in Part 1 of CC.8.1 or Part 1 of ECC.8.1 are those for which the **Connection Conditions** or **European Connection Conditions** (as applicable) require the capability as a condition of connection and those in Part 2 are those which may be agreed to be provided by **Users** and which can only be utilised by **The Company** if so agreed. **Commercial Ancillary Services** like those **System Ancillary Services** set out in Part 2 of CC.8.1 (as applicable to **GB Code Users**) or Part 2 of ECC.8.1 (as applicable to **EU Code Users**), may be agreed to be provided by **Users** and which can only be utilised by **The Company** if so agreed.

BC3.1.3 The provision of **Frequency** control services, if any, from an **External System** via a **DC Converter Station** or **HVDC System** will be provided for in the **Ancillary Services Agreement** and/or **Bilateral Agreement** with the **DC Converter Station** owner or **HVDC System Owner** and/or any other relevant agreements with the relevant **EISO**.

BC3.1.4 The provision of **Frequency** control services, if any, from an **Offshore Power Station** connected to an **Offshore Transmission System** that includes a **Transmission DC Converter** will be facilitated (where necessary) through appropriate data signals provided to the **Offshore Power Station** by the **Relevant Transmission Licensee** in accordance with the **STC**.

## BC3.2 OBJECTIVE

The procedure for **The Company** to direct **System Frequency** control is intended to enable (as far as possible) **The Company** to meet the statutory requirements of **System Frequency** control.

## BC3.3 SCOPE

**BC3** applies to **The Company** and to **GB Code Users** and **EU Code Users**, which in this

**BC3** means:

1. **GB Generators** with regard to their **Large Power Stations** (except those **Large Power Stations** with a **Registered Capacity** less than 50MW comprising of **Power Park Modules**),
2. **EU Generators** with regard to their **Large Power Stations**,

# Network Operators,

1. **DC Converter Station** owners and **HVDC System Owners**,
2. other providers of **Ancillary Services**,

# Externally Interconnected System Operators.

## BC3.4 MANAGING SYSTEM FREQUENCY

BC3.4.1 Statutory Requirements

When **The Company** determines it is necessary (by having monitored the **System Frequency**), it will, as part of the procedure set out in **BC2**, issue instructions (including instructions for **Commercial Ancillary Services**) in order to seek to regulate **System Frequency** to meet the statutory requirements of **Frequency** control. **Gensets** (except those owned and/or operated by **GB Generators** comprising of a **Power Park Module** in a **Power Station** with a **Registered Capacity** less than 50MW and those owned and/or operated by **GB Generators** comprising of a **Power Park Module** in Scotland with a **Completion Date** before 1 July 2004) and **DC Converters** at **DC Converter Stations** or **HVDC Systems** when transferring **Active Power** to the **Total System**, operating in **Frequency Sensitive Mode** will be instructed by **The Company** to operate taking due account of the **Target Frequency** notified by **The Company**.

BC3.4.2 Target Frequency

**The Company** will give 15 minutes notice of variation in **Target Frequency**.

BC3.4.3 Electric Time

**The Company** will endeavour (in so far as it is able) to control electric clock t ime to within plus or minus 10 seconds by specifying changes to **Target Frequency**, by accepting bids and offers in the **Balancing Mechanism**. Errors greater than plus or minus 10 seconds may be temporarily accepted at **The Company 's** reasonable discretion.

## BC3.5 RESPONSE FROM GENSETS (AND DC CONVERTERS AT DC CONVERTER STATIONS AND HVDC SYSTEMS WHEN TRANSFERRING ACTIVE POWER TO THE TOTAL SYSTEM)

BC3.5.1 Capability

Each **Genset** (except those owned and/or operated by **GB Generators** and comprising of **Power Park Modules** in a **Power Station** with a **Registered Capacity** less than 50MW and those owned and/or operated by **GB Generators** and comprising of **Power Park Modules** in Scotland with a **Completion Date** before 1 July 2004), each **Type C** and **Type D Power Generating Module** within a **Power Station** owned and operated by an **EU Generator** with a **CUSC Contract** and each **DC Converter** at a **DC Converter Station** and **HVDC System**,must at all times have the capability to operate automatically so as to provide response to changes in **Frequency** in accordance with the requirements of CC.6.3.7 or ECC.6.3.7 (as applicable) in order to contribute to containing and correcting the **System Frequency** within the statutory requirements of **Frequency** control. For **DC Converters** at **DC Converter Stations** and **HVDC Systems,** BC3.1.3 also applies. In addition, each **Genset** (and each **DC Converter** at a **DC Converter Station** and **HVDC System**) and **Power Generating Module** must at all times have the capability to operate in a **Limited Frequency Sensitive Mode**.

BC3.5.2 Limited Frequency Sensitive Mode

Each **Synchronised Genset** producing **Active Power** (and each **DC Converter** at a **DC Converter Station** and **HVDC System**) must operate at all times in a **Limited Frequency Sensitive Mode** (unless instructed in accordance with BC3.5.4 below to operate in **Frequency Sensitive Mode** ). Operation in **Limited Frequency Sensitive Mode** must achieve the capability requirement described in CC.6.3.3 (in respect of **GB Code Users**) and ECC.6.3.3 (in respect of **EU Code Users**) and for **System Frequencies** up to 50. 4Hz and shall be deemed not to be in contravention of CC.6.3.7 or ECC.6.3.7 (as applicable).

BC3.5.3 (a) Existing Gas Cooled Reactor Plant

**The Company** will permit **Existing Gas Cooled Reactor Plant** other than **Frequency Sensitive AGR Units** to operate in **Limited Frequency Sensitive Mode** at all times.

1. Power Park Modules belonging to GB Generators In Operation Before 1 January 2006

**The Company** will permit **Power Park Modules** which were in operation before 1 January 2006 and owned and/or operated by **GB Generators** to operate in **Limited Frequency Sensitive Mode** at all times. For the avoidance of doubt, **Power Park Modules** owned and/or operated by **GB Generators** in England and Wales with a **Completion Date** on or after 1 January 2006 and **Power Park Modules** owned and/ or operated by **GB Generators** in operation in Scotland after 1 January 2006 with a completion date after 1 July 2004 and in a **Power Station** with a **Registered Capacity** of 50MW or more, will be required to operate in both **Limited Frequency Sensitive Mode** and **Frequency Sensitive Mode** of operation depending on **System** conditions. For the avoidance of doubt, these requirements do not apply to **EU Generators**.

BC3.5.4 Frequency Sensitive Mode

* 1. **The Company** may issue an instruction to a **Genset** (or **DC Converter** at a **DC Converter Station** or **HVDC System** if agreed as described in BC3.1.3) to operate so as to provide **Primary Response** and/or **Secondary Response** and/or **High Frequency Response** (in the combinations agreed in the relevant **Ancillary Services Agreement**). When so instructed, the **Genset** or **DC Converter** at a **DC Converter Station** or **HVDC System** must operate in accordance with the instruction and will no longer be operating in **Limited Frequency Sensitive Mode**, but by being so instructed will be operating in **Frequency Sensitive Mode**.
  2. **Frequency Sensitive Mode** is the generic description for a **Genset** (or **DC Conve rte r** at a **DC Converter Station** or **HVDC System**) operating in accordance with an instruction to operate so as to provide **Primary Response** and/or **Secondary Response** and/or **High Frequency Response** (in the combinations agreed in the relevant **Ancillary Services Agreement**).
  3. The magnitude of the response in each of those categories instructed will be in accordance with the relevant **Ancillary Services Agreement** with the **Generator** or **DC Converter Station** owner or **HVDC System Owner**.
  4. Such instruction will continue until countermanded by **The Company** or until;
     1. the **Genset** is **De-Synchronised**; or
     2. the **DC Converter** or **HVDC System** ceases to transfer **Active Power** to or from the **Total System** subject to the conditions of any relevant agreement relating to the operation of the **DC Converter Station** or **HVDC System**,

whichever is the first to occur.

* 1. **The Company** will not so instruct **Generators** in respect of **Existing Gas Cooled Reactor Plant** other than **Frequency Sensitive AGR Units**.
  2. **The Company** will not so instruct **GB Generators** in respect of **Power Park Modules**:
     1. in Scotland in a **Power Station** with a **Completion Date** before 1 July 2004; or,
     2. in a **Power Station** with a **Registered Capacity** of less than 50MW.
     3. in England and Wales with a **Completion Date** before 1 January 2006. BC3.5.5 System Frequency Induced Change

A **System Frequency** induced change in the **Active Power** output of a **Genset** (or **DC Converter** at a **DC Converter Station** or **HVDC System**) which assists recovery to **Target Frequency** must not be countermanded by a **Generator** or **DC Converter Station** owner or **HVDC System Owner** except where it is done purely on safety grounds (relating to either personnel or plant) or, where necessary, to ensure the integrity of the **Power Station** or **DC Converter Station** or **HVDC System**.

## BC3.6 RESPONSE TO LOW FREQUENCY

BC3.6.1 Low Frequency Relay initiated Response From Gensets and DC Converters at DC Converter Stations and HVDC Systems

* + - 1. **The Company** may utilise **Gensets** (and **DC Converters** at **DC Conve rte r Stations** and **HVDC Systems**) with the capability of **Low Frequency Relay** initiated response as:
         1. synchronisation and generation from standstill;
         2. generation from zero generated output;
         3. increase in generated output;
         4. increase in **DC Converter** or **HVDC System** output to the **Total System** (if so agreed as described in BC3.1.3);
         5. decrease in **DC Converter** or **HVDC System** input from the **Total System** (if so agreed as described in BC3.1.3);

in establishing its requirements for **Operating Reserve**.

* + - 1. (i) **The Company** will specify within the range agreed with **Generators** and/or **EISOs** and/or **DC Converter Station** owners or **HVDC System Owners** (if so agreed as described in BC3.1.3), **Low Frequency Relay** settings to be applied to **Gensets** or **DC Converters** at **DC Converter Stations** or **HVDC Systems** pursuant to BC3.6.1 (a) and instruct the **Low Frequency Relay** initiated response placed in and out of service.

(ii) **Generators** and/or **EISOs** and/or **DC Converter Station** owners or **HVDC System Owners** (if so agreed as described in BC3.1.3) will comply with **The Company** instructions for **Low Frequency Relay** settings and **Low Frequency Relay** initiated response to be placed in or out of service. **Generators** or **DC Conve rte r Station** owners or **HVDC System Owners** or **EISOs** may not alter such **Low Frequency Relay** settings or take **Low Frequency Relay** initiated response out of service without **The Company's** agreement (such agreement not to be unreasonably withheld or delayed), except for safety reasons.

BC3.6.2 Low Frequency Relay Initiated Response from Demand and other Demand Modification arrangements (which may include a DC Converter Station or HVDC System when Importing Active Power from the Total System)

1. **The Company** may, pursuant to an **Ancillary Services Agreement**, utilise **De mand** with the capability of **Low Frequency Relay** initiated **Demand** reduction in establishing its requirements for **Frequency Control**.
2. (i) **The Company** will specify within the range agreed, the **Low Frequency Relay** settings to be applied pursuant to BC3.6.2 (a), the amount of **Demand** reduction to be available and will instruct the **Low Frequency Relay** initiated response to be placed in or out of service.
   1. **Users** will comply with **The Company** instructions for **Low Frequency Relay** settings and **Low Frequency Relay** initiated **Demand** reduction to be placed in or out of service. **Users** may not alter such **Low Frequency Relay** settings or take **Low Frequency Relay** initiated response out of service without **The Company's** agreement, except for safety reasons.
   2. In the case of any such **Demand** which is **Embedded**, **The Company** will notify the relevant **Network Operator** of the location of the **Demand**, the amount of **Demand** reduction to be available, and the **Low Frequency Relay** settings.
3. **The Company** may also utilise other **Demand** modification arrangements pursuant to an agreement for **Ancillary Services**, in order to contribute towards **Operating Reserve**.

## BC3.7 RESPONSE TO HIGH FREQUENCY REQUIRED FROM SYNCHRONISED GENSETS (AND DC CONVERTERS AT DC CONVERTER STATIONS AND HVDC SYSTEMS W HEN TRANSFERRING ACTIVE POWER TO THE TOTAL SYSTEM)

BC3.7.1 Plant in Frequency Sensitive Mode instructed to provide High Frequency Response

1. Each **Synchronised Genset** (or each **DC Converter** at a **DC Converter Station** or **HVDC System**) in respect of which the **Generator** or **DC Converter Station** owner or **HVDC System Owner** and/or **EISO** has been instructed to operate so as to provide **High Frequency Response** , which is producing **Active Power** and which is operating above the **Designed Minimum Operating Level**, is required to reduce **Active Power** output in response to an increase in **System Frequency** above the **Target Frequency** (or such other level of **Frequency** as may have been agreed in an **Ancillary Services Agreement**). The **Target Frequency** is normally 50.00 Hz except where modified as specified under BC3.4.2.
2. (i) The rate of change of **Active Power** output with respect to **Frequency** up to 50.5 Hz shall be in accordance with the provisions of the relevant **Ancillary Services Agreement** with each **Generator** or **DC Converter Station** owner or **HVDC System Owner**. If more than one rate is provided for in the **Ancillary Services Agreement**, **The Company** will instruct the rate when the instruction to operate to provide **High Frequency Response** is given.
   1. The reduction in **Active Power** output by the amount provided for in the relevant **Ancillary Services Agreement** must be fully achieved within 10 seconds of the time of the **Frequency** increase and must be sustained at no lesser reduction thereafter.
   2. It is accepted that the reduction in **Active Power** output may not be below the

# Designed Minimum Operating Level.

1. In addition to the **High Frequency Response** provided, the **Genset** (or **DC Conve rter** at a **DC Converter Station** or **HVDC System**) must continue to reduce **Active Power** output in response to an increase in **System Frequency** above 50.5 Hz at a minimum rate of 2 per cent of output per 0.1 Hz deviation of **System Frequency** above that level, such reduction to be achieved within five minutes of the rise to or above 50.5 Hz. For a **Power Station** with a **Completion Date** after 1st January 2009, this reduction in **Active Power** should be delivered in accordance with in (i) to (iv) below. For the avoidance of doubt, the provision of this reduction in **Active Power** output is not an **Ancillary Service**.
2. The reduction in **Active Power** output must be continuously and linearly proportional as far as practical, to the excess of **Frequency** above 50.5 Hz and must be provided increasingly with time over the period specified in (iii) below.
3. As much as possible of the proportional reduction in **Active Power** output must result from the frequency control device (or speed governor) action and must be achieved within 10 seconds of the time of the **Frequency** increase above 50.5 Hz.
4. The residue of the proportional reduction in **Active Power** output which results from automatic action of the **Genset** (or **DC Converter** at a **DC Converter Station** or **HVDC System**) output control devices other than the frequency control devices (or speed governors) must be achieved within 3 minutes from the time of the **Frequency** increase above 50.5 Hz.
5. Any further residue of the proportional reduction which results from non-automatic action initiated by the **Generator** or **DC Converter Station** owner or **HVDC System Owner** shall be initiated within 2 minutes, and achieved within 5 minutes, of the time of the **Frequency** increase above 50.5 Hz.

BC3.7.2 Plant In Limited Frequency Sensitive Mode

BC.3.7.2.1 Plant in Limited Frequency Sensitive Mode applicable to GB Code Users

The following requirements are applicable to **GB Code Users** in respect of **Plant** operating in **Limited Frequency Sensitive Mode**. For the avoidance of doubt, these requirements do not apply to **EU Generators** and **HVDC System Owners** for whom the requirements of BC.3.7.2.2 apply.

* 1. Each **Synchronised Genset** (or **DC Converter** at a **DC Converter Station**) operating in a **Limited Frequency Sensitive Mode** which is producing **Active Power** is also required to reduce **Active Power** output in response to **System Frequency** when this rises above 50.4 Hz. In the case of **DC Converters** at **DC Converter Stations**, the provisions of BC3.7.7 are also applicable. For the avoidance of doubt, the provision of this reduction in **Active Power** output is not an **Ancillary Service**. Such provision is known as "**Limited High Frequency Response** ".
  2. (i) The rate of change of **Active Power** output must be at a minimum rate of 2 per cent of output per 0.1 Hz deviation of **System Frequency** above 50.4 Hz.
     1. The reduction in **Active Power** output must be continuously and linearly proportional, as far as is practicable, to the excess of **Frequency** above 50. 4 Hz and must be provided increasingly with time over the period specified in (iii) below.
     2. As much as possible of the proportional reduction in **Active Power** output must result from the frequency control device (or speed governor) action and must be achieved within 10 seconds of the time of the **Frequency** increase above 50.4 Hz.
     3. The residue of the proportional reduction in **Active Power** output which results from automatic action of the **Genset** (or **DC Converter** at a **DC Converter Station**) output control devices other than the frequency control devices (or speed governors) must be achieved within 3 minutes from the time of the **Frequency** increase above 50.4 Hz.
     4. Any further residue of the proportional reduction which results from non-automatic action initiated by the **Generator** or **DC Converter Station** owner shall be initiated within 2 minutes, and achieved within 5 minutes, of the time of the **Frequency** increase above 50.4 Hz.
  3. Each **GB Code User** in respect of a **Genset** (or **DC Converter** at a **DC Converter Station**) which is providing **Limited High Frequency Response** in accordance with BC3.7.2 must continue to provide it until the **Frequency** has returned to or below 50. 4 Hz or until otherwise instructed by **The Company**.

BC.3.7.2.2 Plant in Limited Frequency Sensitive Mode applicable to EU Code Users

**EU Code Users** in respect of **Gensets** and **HVDC Systems** are required to operate in **Limited Frequency Sensitive Mode** at all times unless instructed by **The Company** to operate in **Frequency Senstive Mode** . Where **EU Code Users Gensets** and **HVDC Systems** are required to operate in **Limited Frequency Senstive Mode** , then the requirements of ECC.6.3.7.1 and ECC.6.3.7.2 shall apply. For the avoidance of doubt, the requirements defined in BC.3.7.2.1 do not apply to **New Generators** and **HVDC Syste m Owners**.

BC3.7.3 Plant Operation to below Minimum Generation or Minimum Stable Operating Level

1. As stated in CC.A.3.2 and ECC.A.3.2, steady state operation below **Minimum Generation** or the **Minimum Stable Operating Level** or the **Minimum Active Power Transmission Capacity** is not expected but if **System** operating conditions cause operation below the **Minimum Generation** or **Minimum Stable Operating Level** or the **Minimum Active Power Transmission Capacity** which gives rise to operational difficulties for the **Genset** (or **DC Converter** at a **DC Converter Station** or **HVDC System**) then **The Company** should not, upon request, unreasonably withhold issuing a **Bid-Offer Acceptance** to return the **Power Generating Module** and/or **Generating Unit** and/or **CCGT Module** and/or **Power Park Module** or **DC Converter** or **HVDC System** to an output not less than the **Minimum Generation** or the **Minimum Stable Operating Level** or the **Minimum Active Power Transmission Capacity**. In the case of a **DC Converter** or **HVDC System** not participating in the **Balancing Mechanism** , then **The Company** will, upon request, attempt to return the **DC Converter** or **HVDC System** to an output not less than **Minimum Generation** or **Minimum Stable Operating Level** or the **Minimum Active Power Transmission Ca pacity** or to zero transfer or to reverse the transfer of **Active Power**.
2. It is possible that a **Synchronised Genset** (or a **DC Converter** at a **DC Converter Station** or **HVDC System**) which responded as required under BC3.7.1 or BC3. 7.2 to an excess of **System Frequency**, as therein described, will (if the output reduction is large or if the **Genset** (or a **DC Converter** at a **DC Converter Station** or **HVDC System**) output has reduced to below the **Designed Minimum Operating Level** or **Minimum Regulating Level** or the **Minimum Active Power Transmission Ca pacity** trip after a time.
3. All reasonable efforts should in the event be made by the **Generator** or **DC Converter Station** owner or **HVDC System Owner** to avoid such tripping, provided that the **System Frequency** is below 52Hz.
4. If the **System Frequency** is at or above 52Hz, the requirement to make all reasonable efforts to avoid tripping does not apply and the **Generator** or **DC Converter Station** owner or **HVDC System Owner** is required to take action to protect the **Power Generating Modules** and/or **Generating Units** and/or **Power Park Modules** or **DC Converters** or **HVDC Systems** as specified in CC.6.3.13 or ECC.6.3.13.1.
5. In the event of the **System Frequency** becoming stable above 50.5Hz, after all **Genset** and **DC Converter** and **HVDC System** action as specified in BC3.7.1 and BC3.7.2 has taken place, **The Company** will issue appropriate **Bid-Offer Acceptances** and/or **Ancillary Service** instructions, which may include **Emergency Instructions** under **BC2** to trip **Gensets** (or, in the case of **DC Converters** at **DC Converter Stations** or **HVDC Systems**, to stop or reverse the transfer of **Active Power**) so that the **Frequency** returns to below 50.5Hz and ultimately to **Target Frequency**.
6. If the **System Frequency** has become stable above 52Hz, after all **Genset** and **DC Converter** or **HVDC System** action as specified in BC3.7.1 and BC3.7.2 has taken place, **The Company** will issue **Emergency Instructions** under **BC2** to trip appropriate **Gensets** (or in the case of **DC Converters** at **DC Converter Stations** or **HVDC Systems** to stop or reverse the transfer of **Active Power**) to bring the **System Frequency** to below 52Hz and follow this with appropriate **Bid-Offer Acceptances** or **Ancillary Service** instructions or further **Emergency Instructions** under **BC2** to return the **System Frequency** to below 50.5 Hz and ultimately to **Target Frequency**.

BC3.7.4 The **Generator** or **DC Converter Station** owner or **HVDC System Owner** will not be in breach of any of the provisions of BC2 by following the provisions of BC3.7.1, BC3.7.2 or BC3.7.3.

BC3.7.5 Information update to The Company

In order that **The Company** can deal with emergency conditions effectively, it needs as much up to date information as possible and accordingly **The Company** must be informed of the action taken in accordance with BC3.7.1(c) and BC3.7.2 as soon as possible and in any event within 7 minutes of the rise in **System Frequency**, directly by telephone from the **Control Point** for the **Power Station** or **DC Converter Station** or **HVDC System**.

BC3.7.6 (a) Existing Gas Cooled Reactor Plant

For the avoidance of doubt, **Generating Units** within **Existing Gas Cooled Reactor Plant** are required to comply with the applicable provisions of this BC3.7 (which, for the avoidance of doubt, other than for **Frequency Sensitive AGR Units**, do not include BC3.7.1).

(b) Power Park Modules In Operation Before 1 January 2006.

For the avoidance of doubt, **GB Generators** who own and/or operate **Power Park Modules** which are in operation before 1 January 2006 (irrespective of their **Completion Date**) are required to comply with the applicable provisions of this BC3.7 (which, for the avoidance of doubt do not include BC3.7.1).

BC3.7.7 Externally Interconnected System Operators

**The Company** will use reasonable endeavours to ensure that, if **System Frequency** rises above 50.4Hz, and an **Externally Interconnected System Operator** (in its role as operator of the **External System**) is transferring power into the **National Electricity Transmission System** from its **External System**, the amount of power transferred in to the **National Electricity Transmission System** from the **System** of that **Externally Interconnected System Operator** is reduced at a rate equivalent to (or greater than) that which applies for **Synchronised Gensets** operating in **Limited Frequency Sensitive Mode** which are producing **Active Power**. This will be done either by utilising existing arrangements which are designed to achieve this, or by issuing **Emergency Instructions** under **BC2**.

**< END OF BALANCING CODE 3 >**