**OPERATING CODE NO. 6**

**(OC6)**

**DEMAND CONTROL**

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

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OC6.1 INTRODUCTION

OC6.1.1 **Operating Code No.6** ("**OC6**") is concerned with the provisions to be made by **Network Operators**, andin relation to **Non-Embedded Customers** by **The Company**, to permit the reduction of **Demand** in the event of insufficient **Active Power** generation being available to meet **Demand**, or in the event of breakdown or operating problems (such as in respect of **System Frequency**, **System** voltage levels or **System** thermal overloads) on any part of the **National Electricity Transmission System**.

OC6.1.2 **OC6** deals with the following:

(a) **Customer** voltage reduction initiated by **Network Operators** (other than following the instruction of **The Company**);

(b) **Customer** **Demand** reduction by **Disconnection** initiated by **Network Operators** (other than following the instruction of **The Company**);

(c) **Demand** reduction instructed by **The Company**;

(d) automatic low **Frequency** **Demand** **Disconnection**; and

(e) emergency manual **Demand Disconnection**.

The term "**Demand Control**" is used to describe any or all of these methods of achieving a **Demand** reduction.

OC6.1.3 The procedure set out in **OC6** includes a system of warnings and notices to give advance notice of **Demand Control** that may be required by **The Company** under this **OC6**.

OC6.1.4 Data relating to **Demand Control** should include details relating to MW.

OC6.1.5 The Electricity Supply Emergency Code as reviewed and published from time to time by the appropriate government department for energy emergencies provides that in certain circumstances consumers are given a certain degree of "protection" when rota disconnections are implemented pursuant to a direction under the Energy Act 1976. No such protection can be given in relation to **Demand Control** instructed by **The Company** under the **Grid Code**, except:

1. in relation to those **Load Blocks** referred to in the procedure for implementation of **Demand Control** on the instructions of **The Company** via **Disconnection** of **Load Blocks** referred to in OC6.5 and where it is technically feasible to provide such protection to pre-designated protected sites, although, even in these situations, protection cannot be guaranteed; and
2. in relation to the **Demand Control Rotation Protocol** arrangements in OC6.9 and where it is technically feasible to provide such protection to pre-designated protected sites,

although, even in these situations, protection cannot be guaranteed.

To invoke the Electricity Supply Emergency Code the Secretary of State will issue direction(s) to all **Network Operators** affected, exercising emergency powers under the Electricity Act 1989 or by virtue of an Order in Council under the Energy Act 1976. Following the issuance of such direction, **The Company** will act to coordinate the implementation of an agreed schedule of rota disconnections across all affected **Network Operators’** licence area(s) and to disseminate any information as necessary throughout the period of the emergency in accordance with the instructions **The Company** receives from the Secretary of State or those authorised on their behalf for this purpose.

The list of pre-designated protected sites is compiled and kept up to date by **Network Operators** in accordance with the terms set out in the Electricity Supply Emergency Code.

OC6.1.6 Connections between **Large Power Stations** and the **National Electricity Transmission System** and between such **Power Stations** and a **User System** will not, as far as possible, be disconnected by **The Company** pursuant to the provisions of **OC6** insofar as that would interrupt supplies

(a) for the purposes of operation of the **Power Station** (including **Start-Up** and shutting down);

(b) for the purposes of keeping the **Power Station** in a state such that it could be Started-up when it is off-**Load** for ordinary operational reasons; or

(c) for the purposes of compliance with the requirements of a Nuclear Site Licence.

**Demand Control** pursuant to this **OC6** therefore applies subject to this exception.

OC6.2 OBJECTIVE

OC6.2.1 The overall objective of **OC6** is to require the provision of facilities to enable **The Company** to achieve reduction in **Demand** that will either avoid or relieve operating problems on the **National Electricity Transmission System**, in whole or in part, and thereby to enable **The Company** to instruct **Demand Control** in a manner that does not unduly discriminate against, or unduly prefer, any one or any group of **Suppliers** or **Network Operators** or **Non-Embedded Customers**. It is also to ensure that **The Company** is notified of any **Demand Control** utilised by **Users** other than following an instruction from **The Company**.

OC6.2.2 For certain **Grid Supply Points** in Scotland it is recognised that it may not be possible to meet the requirements in OC6.4.5(b) (in respect of **Demand Disconnection** only), OC6.6.2 (c) and OC6.7.2 (b). In these circumstances **The Company** and the relevant **Network Operator(s)** will agree equivalent requirements covering a number of **Grid Supply Points**. If **The Company** and the relevant **Network** **Operator** fail to agree equivalent requirements covering a number of **Grid Supply** **Points**, then the relevant **Network Operator** will apply the provisions of OC6.4.5(b) (in respect of **Demand Disconnection** only), OC6.6.2(c) and OC6.7.2(b) as evenly as reasonably practicable over the relevant **Network** **Operator’s** entire **System**.

OC6.3 SCOPE

OC6.3.1 **OC6** applies to **The Company** and to **Users** which in **OC6** means:

(a) **Generators**; and

(b) **Network Operators**.

It also applies to **The Company** in relation to **Non-Embedded** **Customers**.

OC6.3.2 Explanation

OC6.3.2.1 (a) Although OC6 does not apply to **Suppliers**, the implementation of **Demand Control** may affect their **Customers**.

(b) In all situations envisaged in **OC6**, **Demand Control** is exercisable:

(i) by reference to a **Network Operator's System**; or

(ii) by **The Company** in relation to **Non-Embedded Customers**.

(c) **Demand Control** in all situations relates to the physical organisation of the **Total System**, and not to any contractual arrangements that may exist.

OC6.3.2.2 (a) Accordingly, **Demand Control** will be exercisable with reference to, for example, five per cent (or such other figure as may be utilised under OC6.5) tranches of **Demand** by a **Network Operator**.

(b) For a **Supplier**, whose **Customers** may be spread throughout a number of **User Systems** (and the **National Electricity Transmission System**), to split its **Customers** into five per cent (or such other figure as may be utilised under OC6.5) tranches of **Demand** would not result in **Demand Control** being implemented effectively on the **Total System**.

(c) Where **Demand Control** is needed in a particular area, **The Company** would not know which **Supplier** to contact and (even if it were to) the resulting **Demand Control** implemented, because of the diversity of contracts, may well not produce the required result.

OC6.3.2.3 (a) **Suppliers** should note, however, that, although implementation of **Demand Control** in respect of their **Customers** is not exercisable by them, their **Customers** may be affected by **Demand Control**.

(b) This will be implemented by **Network Operators** where the **Customers** are within **User Systems** directly connected to the **National Electricity Transmission System** and by **The Company** where they are **Non-Embedded Customers**.

(c) The contractual arrangements relating to **Customers** being supplied by **Suppliers** will, accordingly, need to reflect this.

(d) The existence of a commercial arrangement for the provision of **Customer Demand Management** or **Commercial Ancillary Services** does not relieve a **Network Operator** from the **Demand Control** provisions of OC6.5, OC6.6. OC6.7 and OC6.9, which may be exercised from time to time.

OC6.4 PROCEDURE FOR THE NOTIFICATION OF DEMAND CONTROL INITIATED BY NETWORK OPERATORS (OTHER THAN FOLLOWING THE INSTRUCTION OF THE COMPANY)

OC6.4.1 Pursuant to the provisions of **OC1**, in respect of the time periods prior to 1100 hours each day, each **Network Operator** will notify **The Company** of all **Customer** voltage reductions and/or restorations and **Demand Disconnection** or reconnection, on a **Grid Supply Point** and half-hourly basis, which will or may, either alone or when aggregated with any other **Demand Control** planned by that **Network Operator**,result in a **Demand** change equal to or greater than the **Demand Control Notification Level** averaged over any half hour on any **Grid Supply Point**, which is planned to be instructed by the **Network Operator** other than following an instruction from **The Company** relating to **Demand** reduction.

OC6.4.2 Under **OC6**, each **Network Operator** will notify **The Company** in writing by 1100 hours each day (or such other time specified by **The Company** from time to time) for the next day (except that it will be for the next 3 days on Fridays and 2 days on Saturdays and may be longer (as specified by **The Company** at least one week in advance) to cover holiday periods) of **Customer** voltage reduction or **Demand Disconnection** which will or may result in a **Demand** change equal to or greater than the **Demand Control Notification Level** averaged over any half hour on any **Grid Supply Point**, (or which when aggregated with any other **Demand Control** planned by that **Network Operator** is equal to or greater than the **Demand Control Notification Level**), planned to take place during the next **Operational Day**.

OC6.4.3 When the **Customer** voltage reduction or **Demand Disconnection** which may result in a **Demand** change equal to or greater than the **Demand Control Notification Level** averaged over any half hour on any **Grid Supply Point** (or which when aggregated with any other **Demand Control** planned or implemented by that **Network Operator** is equal to or greater than the **Demand Control Notification Level**) is planned after 1100 hours, each **Network Operator** must notify **The Company** as soon as possible after the decision to implement has been made. If the **Customer** voltage reduction or **Demand Disconnection** is implemented immediately after the decision to implement is made, each **Network Operator** must notify **The Company** within five minutes of implementation.

OC6.4.4 Where, after **The Company** has been notified, whether pursuant to **OC1**, OC6.4.2 or OC6.4.3, the planned **Customer** voltage reduction or **Demand Disconnection** is changed, the **Network Operator** will notify **The Company** as soon as possible of the new plans, or if the **Customer** voltage reduction or **Demand Disconnection** implemented is different to that notified, the **Network Operator** will notify **The Company** of what took place within five minutes of implementation.

OC6.4.5 Any notification under OC6.4.2, OC6.4.3 or OC6.4.4 will contain the following information on a **Grid Supply Point** and half hourly basis:

(a) the proposed (in the case of prior notification) and actual (in the case of subsequent notification) date, time and duration of implementation of the **Customer** voltage reduction or **Demand Disconnection**; and

(b) the proposed reduction in **Demand** by use of the **Customer** voltage reduction or **Demand Disconnection**.

OC6.4.6 Pursuant to the provisions of OC1.5.6, each **Network Operator** will supply to **The Company** details of the amount of **Demand** reduction actually achieved by use of the **Customer** voltage reduction or **Demand Disconnection**.

OC6.5 PROCEDURE FOR THE IMPLEMENTATION OF DEMAND CONTROL ON THE INSTRUCTIONS OF THE COMPANY

OC6.5.1 **Demand Disconnection** as part of **Demand Contro**l addresses anticipated short-term forecasted shortages in electricity supply to meet **Demand** on the **National Electricity Transmission System**. **Demand Disconnection** as part of **Demand Control** aims to prevent unplanned **Demand Disconnections**, or at the extreme, the **Partial Shutdown** or **Total Shutdown** of the **National Electricity Transmission System**. **Demand Control** can be enacted with a shorter lead time than other **Demand Disconnection** methods, such as those contained in the Electricity Supply Emergency Code and in the **Demand Control Rotation Protocol**.

OC6.5.2 A **National Electricity Transmission System Warning - High Risk of Demand Reduction** will, where possible, be issued by **The Company**, as set out in OC6.5.4, OC7.4.8 and BC1.5.4when **The Company** anticipates that it will or may instruct a **Network Operator** to implement **Demand** reduction. It will, as provided for in OC6.5.11 and OC7.4.8.2, also be issued to **Non-Embedded Customers**.

OC6.5.3 Where **The Company** expects to instruct **Demand** reduction within the following 30 minutes, **The Company** will, where possible, issue a **National Electricity Transmission System Warning - Demand Control** **Imminent** in accordance with OC7.4.8.2(c) and OC7.4.8.6.

OC6.5.4 Whether a **National Electricity Transmission System Warning - High Risk of Demand Reduction** or **National Electricity Transmission System Warning - Demand Control Imminent** has been issued or not; if the **Demand Control** instruction relates to less than 20 per cent of its total **Demand**, the **Network Operator** shall:

1. if the **Demand Control** instruction relates to **Demand Disconnection**, disconnect up to four **Fast Load Blocks** provided always that:
   1. **The Company** shall specify which **Fast Load Block(s)** should be disconnected;
   2. Each **Network Operator** shall abide by the instructions of **The Company** with regard to **Demand** reduction under OC6.5 by disconnecting **Fast Load Block(s)**;
   3. **Demand Disconnection** shall be initiated as soon as possible but no longer than two minutes from the instruction being received by the **Network Operator**, and shall be completed within five minutes of the instruction being received by the **Network Operator**; and
2. The **Demand** reduction shall be achieved as uniformly as possible within the **Network Operator's User System** unless otherwise agreed by **The Company** and the **Network Operator**. Such agreement shall be documented in the **National Electricity Transmission System Warning - High Risk of Demand Reduction** and/or in the **Demand Control** instruction.
3. if the **Demand Control** instruction relates to voltage reduction, and where the **Network Operator** has confirmed via their Week 24 submission that they are able to offer voltage reduction services, provide up to two voltage reduction stages of between 2 and 4 percent voltage reduction, each of which can reasonably be expected to deliver around 1.5 percent **Demand** reduction provided always that:
4. **The Company** shall specify the number of voltage reduction stages that the **Network Operator** should implement;
5. Each **Network Operator** shall abide by the instructions of **The Company** with regard to **Demand** reduction under OC6.5 by implementing voltage reduction; and..
6. **Demand Control** initiated by voltage reduction shall be initiated as soon as possible but no longer than two minutes from the instruction being received by the **Network Operator** and completed within 10 minutes of the instruction being received by the **Network Operator**.
7. Each **Network Operator** must notify **The Company** in writing by calendar week 24 each year, for the succeeding **Financial Year**, whether they are able to offer a voltage reduction service.
8. Thereafter, any changes must be notified in writing to **The Company** at least 10 **Business Days** prior to the change coming into effect.

OC6.5.5 Where **The Company** wishes to instruct a **Demand** reduction of more than 20 per cent of the **Network Operator’s** total **Demand** and where **The Company** has sufficient time, **The Company** will initiate **DCRP** in accordance with OC6.9.

OC6.5.6 (a) Where **The Company** wishes to instruct a **Demand** reduction of more than 20 per of the **Network Operator’s** total **Demand** and where **The Company** does not have sufficient time to initiate the **DCRP** in accordance with OC6.9, **The Company** shall liaise with the **Network Operator** to agree how many **Load Blocks** can be made available within the required timescales.

(b) Where a single **Demand Control** instruction relates to more than 20 per cent of its total **Demand** each **Network Operator** will:

i. implement that part of the instruction relating to, up to and including, 20 per cent of **Demand** reduction in accordance with OC6.5.4; and..

ii. once the instructions have been implemented by the **Network Operator** in accordance with OC6.5.6 (a) (i), any further **Demand** **Disconnection** above those implemented in OC6.5.6(a)(i) shall be implemented on a best endeavours basis.

(c) Where **The Company** issues a **Network Operator** with consecutive instructions to reduce **Demand**, the **Network Operator** will complete instructions in the order they were issued by **The Company** and will not start to execute any instruction until any preceding instruction has been completed, unless otherwise agreed with **The Company**.

OC6.5.7 Once a **Demand** reduction has been implemented by a **Network Operator** at the instruction of **The Company**, the **Network Operator** may interchange the **Load Blocks** disconnected, where practicable, in consultation with **The Company**.

OC6.5.8 Each **Network Operator** will abide by the instructions of **The Company** with regard to the restoration of **Demand** under OC6.5 without delay. It shall not restore **Demand** until it has received such instruction. The restoration of **Demand** must be achieved as soon as possible and the process of restoration must begin within 2 minutes of the instruction being given by **The Company**.

OC6.5.9 In circumstances of protracted shortage of generation or where a statutory instruction has been given (eg. a fuel security period) and when a reduction in **Demand** is envisaged by **The Company** to be prolonged, **The Company** will notify the **Network Operator** of the expected duration and if other measures (e.g. **DCRP** implementation) are required.

OC6.5.10 The **Network Operator** will notify **The Company** in writing that it has complied with **The Company's** instruction under OC6.5, within five minutes of so doing, together with an estimation of the **Demand** reduction or restoration achieved, as the case may be.

OC6.5.11 **The Company** may itself implement **Demand** reduction and subsequent restoration on **Non-Embedded Customers** as part of a **Demand Control** requirement and it will organise the **National Electricity Transmission System** so that it will be able to reduce **Demand** by **Disconnection** of, or **Customer** voltage reduction to, all or any **Non-Embedded Customers**. Equivalent provisions to those in OC6.5.2 shall apply to issuinga **National Electricity Transmission System Warning - High Risk of Demand Reduction** to **Non-Embedded Customers**, as envisaged in OC7.4.8.

OC6.5.12 Pursuant to the provisions of OC1.5.6, the **Network Operator** will supply to **The Company** details of the amount of **Demand** reduction or restoration actually achieved.

OC6.6 AUTOMATIC LOW FREQUENCY DEMAND DISCONNECTION

OC6.6.1 Each **Network Operator** will make arrangements that will enable automatic low **Frequency** **Disconnection** of at least:

(i) 60 per cent of its total **Demand** (based on **Annual ACS Conditions**) at the time of forecast **National Electricity Transmission System** peak **Demand** where such **Network Operator’s** **System** is connected to the **National Electricity Transmission System** in **NGET’s Transmission Area**

(ii) 40 per cent of its total **Demand** (based on **Annual ACS Conditions**) at the time of forecast **National Electricity Transmission System** peak where such **Network Operator’s System** is connected to the **National Electricity Transmission System** in either **SPT’s** or **SHETL’s Transmission Area**

in order to seek to limit the consequences of a major loss of generation or an **Event** on the **Total System** which leaves part of the **Total System** with a generation deficit. Where a **Network Operator’s System** is connected to the **National Electricity Transmission System** in more than one **Transmission Area**, the figure above for the **Transmission Area** in which the majority of the **Network Operator’s Demand** is connected shall apply.

OC6.6.2 (a) The **Demand** of each **Network Operator** which is subject to automatic low **Frequency** **Disconnection** will be split into discrete MW blocks.

(b) The number, size (% **Demand**) and the associated low **Frequency** settings of these blocks, will be as specified in Table CC.A.5.5.1a and Table ECC.A.5.5.1a. **The Company** will keep the settings under review.

(c) The distribution of the blocks will be such as to give a reasonably uniform **Disconnection** within the **Network Operator's** **System**, as the case may be, across all **Grid Supply Points**.

(d) Each **Network Operator** will notify **The Company** in writing by calendar week 24 each year of the details of the automatic low **Frequency Demand Disconnection** on its **User System**. The information provided should identify, for each **Grid Supply Point** at the date and time of the annual peak of the **National Electricity Transmission System Demand** at **Annual ACS Conditions** (as notified pursuant to OC1.4.2), the frequency settings at which **Demand** **Disconnection** will be initiated and the amount of **Demand** disconnected at each such setting.

OC6.6.3 Where conditions are such that, following automatic low **Frequency** **Demand Disconnection**, and the subsequent **Frequency** recovery, it is not possible to restore a large proportion of the total **Demand** so disconnected within a reasonable period of time, **The Company** may instruct a **Network Operator** to implement additional **Demand** **Disconnection** manually, and restore an equivalent amount of the **Demand** that had been disconnected automatically. The purpose of such action is to ensure that a subsequent fall in **Frequency** will again be contained by the operation of automatic low **Frequency** **Demand Disconnection**.

OC6.6.4 Once an automatic low **Frequency** **Demand Disconnection** has taken place, the **Network Operator** on whose **User System** it has occurred, will not reconnect until **The Company** instructs that **Network Operator** to do so in accordance with **OC6**.

OC6.6.5 Once the **Frequency** has recovered, each **Network Operator** will abide by the instructions of **The Company** with regard to reconnection under OC6.6 without delay. Reconnection must be achieved as soon as possible and the process of reconnection must begin within 2 minutes of the instruction being given by **The Company**.

OC6.6.6 (a) **Non-Embedded Customers** and **Pumped Storage Generators**, must provide automatic low **Frequency** disconnection, which shall be split into discrete blocks.

(b) The number and size of blocks and the associated low **Frequency** settings shall be as specified by **The Company** by week 24 each calendar year following discussion with the **Non-Embedded Customer** and **Pumped Storage Generator** in accordance with the relevant **Bilateral Agreement**.

(c ) **Generators**, **Defence Service Providers**, **Restoration Service Providers** or **Non-Embedded Customers** in respect of **Electricity Storage Modules** who have agreed with **The Company** to satisfy the requirements of OC6.6.6 as provided for in ECC.6.3.7.2.3.1 must provide automatic low **Frequency** disconnection, which shall be split into discrete blocks. The number and size of blocks and the associated low **Frequency** settings will be specified by **The Company** by week 24 each calendar year following discussion with the relevant parties in accordance with the relevant **Bilateral Agreement** or other relevant **Ancillary Services** agreement.

OC6.6.7 (a) In addition, **Generators** may wish to disconnect **Power Generating Modules** and/or **Generating Units** from the **System**, either manually or automatically, should they be subject to **Frequency** levels which could result in **Power Generating Module** and/or **Generating Unit** damage.

(b) This **Disconnection** facility on such a **Power Generating Module** and/or **Generating Unit** directly connected to the **National Electricity Transmission System**, will be agreed with **The Company** in accordance with the **Bilateral Agreement**.

(c) Any **Embedded Power Stations** will need to agree this **Disconnection** facility with the relevant **User** to whose **System** that **Power Station** is connected, which will then need to notify **The Company** of this.

OC6.6.8 The **Network Operator** or **Non-Embedded Customer**, as the case may be, will notify **The Company** with an estimation of the **Demand** reduction which has occurred under automatic low **Frequency** **Demand Disconnection** and similarly notify the restoration, as the case may be, in each case within five minutes of the **Disconnection** or restoration.

OC6.6.9 Pursuant to the provisions of OC1.5.6 the **Network Operator** and **Non-Embedded Customer** will supply to **The Company** details of the amount of **Demand** reduction or restoration actually achieved.

OC6.6.10 (a) In the case of a **User**, it is not necessary for it to provide automatic low **Frequency** disconnection under OC6.6 only to the extent that it is providing, at the time it would be so needed, low **Frequency** disconnection at a higher level of **Frequency** as an **Ancillary Service**, namely if the amount provided as an **Ancillary Service** is less than that required under OC6.6 then the **User** must provide the balance required under OC6.6 at the time it is so needed.

(b) The provisions of OC7.4.8 relating to the use of **Demand Control** should be borne in mind by **Users**.

OC6.7 EMERGENCY MANUAL DISCONNECTION

OC6.7.1 Each **Network Operator** will make arrangements that will enable it, following an instruction from **The Company**, to disconnect **Customers** on its **User System** under emergency conditions irrespective of **Frequency** within 30 minutes. It must be possible to apply the **Demand Disconnections** to individual or specific groups of **Grid Supply Points**, as determined by **The Company**.

OC6.7.2 Each **Network Operator** shall provide **The Company** in writing by week 24 in each calendar year, in respect of the next following year beginning week 24, on a **Grid Supply Point** basis, with the following information (which is set out in a tabular format in the Appendix):

(i) its total peak **Demand** (based on **Annual ACS Conditions**); and

(ii) the percentage value of the total peak **Demand** that can be disconnected (and must include that which can also be reduced by voltage reduction, where applicable) within timescales of 5/10/15/20/25/30 minutes.

OC6.7.3 Each **Network Operator** will abide by the instructions of **The Company** with regard to **Disconnection** under OC6.7 without delay, and the **Disconnection** must be achieved as soon as possible after the instruction being given by **The Company**, and in any case, within the timescale registered in OC6.7. The instruction may relate to an individual **Grid Supply Point** and/or groups of **Grid Supply Points**.

OC6.7.4 **The Company** will notify a **Network Operator** who has been instructed under OC6.7, of what has happened on the **National Electricity Transmission System** to necessitate the instruction, in accordance with the provisions of **OC7** and, if relevant, **OC10**.

OC6.7.5 Once a **Disconnection** has been applied by a **Network Operator** at the instruction of **The Company**, that **Network Operator** will not reconnect until **The Company** instructs it to do so in accordance with **OC6**.

OC6.7.6 Each **Network Operator** will abide by the instructions of **The Company** with regard to reconnection under OC6.7 without delay, and shall not reconnect until it has received such instruction and reconnection must be achieved as soon as possible and the process of reconnection must begin within 2 minutes of the instruction being given by **The Company**.

OC6.7.7 **The Company** may itself disconnect manually and reconnect **Non-Embedded Customers** as part of a **Demand Control** requirement under emergency conditions.

OC6.7.8 If **The Company** determines that emergency manual **Disconnection** referred to in OC6.7 is inadequate, **The Company** may disconnect **Network Operators** and/or **Non-Embedded Customers** at **Grid Supply Points**, to preserve the security of the **National Electricity Transmission System**.

OC6.7.9 Pursuant to the provisions of OC1.5.6 the **Network Operator** will supply to **The Company** details of the amount of **Demand** reduction or restoration actually achieved.

OC6.8 OPERATION OF THE BALANCING MECHANISM DURING DEMAND CONTROL

**Demand Control** will constitute an **Emergency Instruction** in accordance with BC2.9 and it may be necessary to depart from normal **Balancing Mechanism** operation in accordance with BC2 in issuing **Bid-Offer Acceptances**. **The Company** will inform affected **BM Participants** in accordance with the provisions of **OC7**.

OC6.9 DEMAND CONTROL ROTATION PROTOCOL

OC6.9.1 The **Demand Control Rotation Protocol** is owned and managed by **The Company**. The **DCRP** addresses anticipated short-term forecasted shortages, of less than 48 hours, in electricity supply to meet **Demand** on the **National Electricity Transmission System** . The **DCRP** aims to prevent unplanned **Demand Disconnections**, or at the extreme, the **Partial Shutdown** or **Total Shutdown** of the **National Electricity Transmission System**. The **DCRP** describes how **Demand** **Control** shall be delivered whilst ensuring the protection of Protected Sites (as defined in the Electricity Supply Emergency Code) where it is technically feasible to provide such protection. A timeline for how the **DCRP** will be delivered, is included in Appendix 2 of OC6.

OC6.9.2 **The Company** shall undertake a review, at least every five years, in consultation with **Network Operators** and make such amendments to the **DCRP** as agreed. **The Company** shall be responsible for ensuring the finalisation and circulation of the **DCRP** to the **Network Operators** after each review. **The Company** shall liaise with the **Network Operators** and agree any transitional arrangements required to implement any changes to the **DCRP**. Until the new version of the **DCRP** is endorsed by **The Company**, **Network Operators**, and the **Authority,** the existing version will remain in use.

Each **Network Operator** shall have in place such systems and processes that will enable it, following receipt of an instruction from **The Company**, to enact the arrangements described in the **DCRP**.

OC6.9.3 **The Company** shall issue a **National Electricity Transmission System Notice – DCRP Actuation** to **Network Operators**, and will publish it to market participants and the **Authority**, as soon as reasonably practicable after the **Emergency Response Team** meeting, as set out in the **DCRP**. **The Company** shall issue such a notice at least eight hours in advance of **Demand** reduction being needed, unless agreed otherwise between **The Company** and the relevant **Network Operator(s)**.

OC6.9.4 On receipt of a **National Electricity Transmission System Notice – DCRP Actuation**, **Network Operators** shall:

1. make eight **Load Blocks** ready for **Demand Disconnection** available within eight hours; and
2. make a total of 14 **Load Blocks** ready for **Demand Disconnection** within 24 hours, or as soon as reasonably practicable.

**Fast Load Blocks** shall be reserved for delivering obligations under OC6.5.4.

OC6.9.5 **The Company** shall issue a **National Electricity Transmission System Notice – DCRP Implementation** to **Network Operators**, and will publish it to market participants and the **Authority**, at least one hour before disconnections are required. This notice shall be issued the first time **Demand** **Disconnections** are required and will be the formal instruction to **Network Operators** from **The Company**. Once implemented, **Network Operators** shall rotate **Demand** (by disconnecting and reconnecting **Load Blocks**) by implementing the **Activation Schedules** issued by **The Company**, as explained in the **DCRP**. The **Activation Schedules** will be issued by **The Company** at least one hour before **Demand Disconnections** are required to take place, in accordance with the **DCRP**. Subsequent **Activation Schedules** will be issued each time a **Network Operator** is required to disconnect or reconnect **Load Blocks**.

OC6.9.6 At the end of the **Demand Control Rotation Period**, **The Company** shall issue a **National Electricity Transmission System Notice – DCRP Stand Down** to **Network Operators** and will publish it to market participants and the **Authority** in accordance with the timelines stated in the **DCRP**. The **National Electricity Transmission System Notice – DCRP Stand Down** will either:

1. instruct **Network Operators** to securely revert back to normal network configuration and operation, without **Demand Disconnection**, as soon as reasonably practicable; or
2. inform **Network Operators** that the **Demand Control Rotation Period** will be transitioning to the arrangements set out in the Electricity Supply Emergency Code.

OC6.9.7 Aspects of the **DCRP** arrangements shall be tested periodically by **The Company** and the **Network Operators** to ensure the protocol and obligations remain fit for purpose.

**APPENDIX 1 - EMERGENCY MANUAL DEMAND REDUCTION/DISCONNECTION SUMMARY SHEET**

(As set out in OC6.7)

|  |  |  |  |
| --- | --- | --- | --- |
| NETWORK OPERATOR: |  | [YEAR] PEAK: |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **GRID**  **SUPPLY**  **POINT**  **(Name)** | **PEAK**  **MW** | **% OF GROUP DEMAND DISCONNECTION**  **(AND/OR REDUCTION IN THE CASE OF**  **THE FIRST 5 MINUTES)**  **(CUMULATIVE)** | | | | | | **REMARKS** |
| **TIME (MINS)** | | | | | |
| **5** | **10** | **15** | **20** | **25** | **30** |
|  |  |  |  |  |  |  |  |  |

Notes:

1. Data to be provided annually by week 24 to cover the following year.

**APPENDIX 2 – DEMAND CONTROL ROTATION PROTOCOL TIMELINE**

A timeline of how **DCRP** will be delivered (as outlined in OC6.9).

|  |  |  |
| --- | --- | --- |
|  | **Time/Trigger** | **Event/Action** |
| 01 | More than 8 hours prior to **DCRP** implementation. | **Emergency Response Team** meet to determine if **DCRP** is required. |
| 02 | 8 hours prior to **DCRP** implementation. | **National Electricity Transmission System Notice – DCRP Actuation** issued. |
| 03 | **National Electricity Transmission System Notice – DCRP Actuation** issued. | **Network Operators** have 8 hours to make 8 **Load Blocks** available. |
| 04 | At least 1 hour prior to **DCRP** implementation | **National Electricity Transmission System Notice – DCRP Implementation** issued. |
| First set of **Activation Schedules** issued to **Network Operators**. |
| 05 | At least 1 hour prior to each round of **Disconnections / Reconnections** | Further **Activation Schedules** issued to **Network Operators**. |
| 06 | Within 24 hours of **National Electricity Transmission System Notice – DCRP Implementation** being issued. | **Network Operators** to have all 14 **Load Blocks** available for rotation. |
| 07 | When **DCRP** implementation is no longer required. | **National Electricity Transmission System Notice – DCRP Stand Down** issued. |
| 08 | As soon as reasonably practicable after **National Electricity Transmission System Notice – DCRP Stand Down** being issued. | **Network Operators** to return network back to normal configuration and operation or revert to arrangements set out in the Electricity Supply Emergency Code. |

**< END OF OPERATING CODE NO. 6 >**