**Proposed modifications to the SONI Grid Code in respect of Demand Side Units**

**17 October 2014**

**Amended sections of the SONI GRID CODE**

**INTRODUCTION**

4. The **Operating** procedures and principles governing the **TSO's** relationship with all **Users** under the **Grid Code**, be they the **DNO**, **Generators**, **Suppliers**, **Interconnector** **Users**, **Interconnector** **Owners**, **Generator Aggregators,** **Demand Side Unit Operators** or **Large Demand Customers** are set out in the **Grid Code**. The **Grid Code** specifies day-to-day procedures for both planning and operational purposes and covers both normal and exceptional circumstances.

5. The **Grid Code** is divided into the following sections:-

(a) a **Planning Code** which provides generally for the supply of certain information by **Users** in order that the planning and development of the **Transmission System** may be undertaken. The **Planning Code** applies to:

(i) **Generators** with respect to **Generating Units** connected to or seeking a new

or modified connection to the **Transmission System**;

(ii) **Generators** with respect to **CDGUs** and **Controllable WFPSs** connected to or seeking a new or modified connection to the **Distribution System**;

(iii) **Suppliers**;

(iv) **Large Demand Customers**;

(v) **Aggregators**;

(vi) **Interconnector Owners**; and

(vii) the **DNO**;

(b) **Connection Conditions** which specify the minimum technical, design and certain operational criteria which must be complied with by **Users** connected to or seeking connection with the **Transmission System.** The **Connection Conditions** apply to:

(i) **Generators** with respect to **Generating Units** connected to or seeking a new or modified connection to the **Transmission System**;

(ii) **Generators** with respect to **CDGUs** and **Controllable WFPSs** connected to or seeking a new or modified connection to the **Distribution System**;

(iii) **Suppliers**;

(iv) **Large Demand Customers**;

(v) **Aggregators**;

(vi) **Interconnector Owners**; and

(vii) the **DNO**;

(c) an **Operating Code** which is split into a number of sections and deals with:-

(i) **Demand forecasting (OC1)**, which applies to:

(aa) **Generators** with respect to **Generating Units** connected to the

**Transmission System**;

(bb) **Generators** with respect to **CDGUs** and **Controllable WFPSs** connected to or seeking a new or modified connection to the **Distribution System**;

(cc) **Generator Aggregators**;

(dd) **Suppliers**; and

(ee) the **DNO**;

(ii) the co-ordination of the **Outage** planning process in respect of **Generating Units** and **Power Station Equipment a**nd **Outages** of equipment on the **Transmission System** and **Distribution System** where relevant for construction, repair and maintenance (**OC2**). **OC2** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the

**Transmission System**;

(bb) **Generators** with respect to **CDGUs** and **Controllable WFPSs** connected to or seeking a new or modified connection to the **Distribution System**;

(cc) **Interconnector Owners**;

(dd) **Large Demand Customer**s; and

(ee) the **DNO**;

(iii) the specification of different types of reserve, which make up the **Operating Margin (OC3). OC3** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the

**Transmission System**;

(bb) **Generators** with respect to **CDGUs** and **Controllable WFPSs** connected to or seeking a new or modified connection to the **Distribution System**; and

(cc) **Interconnector Owners**;

(iv) different methods of reducing **Demand (OC4)**. **OC4** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the

**Transmission System** or **Distribution System**;

(bb) **Suppliers**; and

(cc) the **DNO**;

(v) the reporting of scheduled and planned actions and unexpected occurrences such as faults between the **TSO** and **Users (OC5)**. **OC5** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the

**Transmission System**;

(bb) **Interconnector Owners**;

(cc) **Large Demand Customers**; and

(dd) the **DNO**;

(vi) the co-ordination, establishment and maintenance of **Isolation** and **Earthing** in order that work and/or testing can be carried out safely (**OC6**). **OC6** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the **Transmission System**;

(bb) **Interconnector Owners**;

(cc) the **DNO**; and

(dd) the **TO**;

(vii) certain aspects of contingency planning (**OC7**). **OC7** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the **Transmission System**;

(bb) **Generators** with respect to **CDGUs** and **Controllable WFPSs** connected to or seeking a new or modified connection to the **Distribution System**;

(cc) **Large Demand Customers**; and

(dd) the **DNO**;

(viii) the provision of written reports on occurrences such as faults in certain circumstances (**OC8**). **OC8** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the **Transmission System**;

(bb) **Interconnector Owners**;

(cc) **Large Demand Customers**; and

(dd) the **DNO**;

(ix) the procedures for determining the number and nomenclature of **Plant** and **Apparatus** at **Connection Sites** (**OC9**);

**OC9** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the **Transmission System**;

(bb) **Interconnector Owners**;

(cc) **Large Demand Customers**; and

(dd) the **DNO**;

(x) the procedures for the establishment of **System Tests** (**OC10**). **OC10** applies to:

(aa) **Generators** with respect to **Generating Units** connected to the **Transmission System**;

(bb) **Interconnector Owners**;

(cc) **Large Demand Customers**;

(dd) **Aggregators**; and

(ee) the **DNO**;

(xi) **Monitoring, Testing and Investigations** in relation to **User's Plant** and **Apparatus** (**OC11**). **OC11** applies to:

(aa) Generators with respect to Generating Units connected to the Transmission System;

(bb) **Generators** with respect to **CDGUs** and **Controllable WFPSs** connected to or seeking a new or modified connection to the **Distribution System**;

(cc) **Aggregators**;

(dd) **Interconnector Owners**;

(ee) **Demand Side Unit Operators**; and

(ff) **Large Demand Customers.**

(d) a **Scheduling** and **Dispatch Code** which is split into three sections and deals with:-

(i) **Scheduling** generally and the preparation of an **Indicative Operations** **Schedule** indicating which units may be instructed the following day (**SDC1**). SDC1 applies to:

(aa) **Generators** with regard to **CDGUs** and **Controllable WFPSs** connected to the **Transmission System** or **Distribution System**;

(bb) **Pumped Storage Generators** with regard to their **Pumped Storage Demand**;

(cc) **Interconnector Owners** with respect to their **Interconnectors**;

(dd) **Interconnector Users** in respect of their **Interconnector Units**;

(ee) **Demand Side Unit Operators** in relation to their **Demand Side Units**; and

(ff) **Generator Aggregators** in respect of their **Aggregated Generating Units**.

(ii) the issue of **Dispatch Instructions** (**SDC2**). SDC2 applies to:

(aa) **Generators** with regard to **CDGUs** connected to the **Transmission System** or **Distribution System**;

(bb) **Pumped Storage Generators** with regard to their **Pumped Storage Demand**;

(cc) **Interconnector Owners** with respect to their **Interconnectors**;

(dd) **Demand Side Unit Operators** in relation to their **Demand Side Units**; and

(ee) **Generator Aggregators** in respect of their **Aggregated Generating Units**.

(iii) the procedures and requirements in relation to **Frequency Control** (**SCD3**). SDC3 applies to:

(aa) **Generators** in respect of all **Generating Units** connected to the **Transmission System**;

(bb) **Generators** in respect of **CDGUs** and **Controllable WFPSs** connected to the **Distribution System**;

(cc) **Suppliers**; and

(dd) **Interconnector Owners**.

(e) a **Data Registration Code** which sets out a unified listing of all data required by the **TSO** from **Users**, and by **Users** from the **TSO**, under the **Grid Code**;

(f) **General Conditions** which are intended to ensure, so far as possible, that the various sections of the **Grid Code** work together and work in practice and which include provisions relating to the establishment of a **Grid Code Review Panel** and other provisions of a general nature; and

(g) a **Metering Code** which is split into a number of sections, which deal in particular with:-

(i) the basic requirements for metering (**MC**);

(ii) specific requirements for tariff and operational metering (**Sub-Codes**

**1-3**)

(iii) procedures for the maintenance, testing, inspection and sealing of metering (**Agreed Procedures No 1 and No 2**);

(iv) reconciliation procedures for metering (**Agreed Procedures No 3 and No 4**);

(v) procedures for estimating settlement values in lieu of normal data collection methods (**Agreed Procedures No 5 and No 6**); and

(viii) communication protocols (**Agreed Procedure No 7**).

**GLOSSARY AND DEFINITIONS (GD)**

GD1. DEFINED TERMS

In the **Grid Code** the following words and expressions shall, unless the subject matter or the context otherwise requires or is inconsistent therewith, bear the following meanings:

**Aggregated Demand Site** A group of **Individual Demand Sites** connected to the **Transmission** or **Distribution System** andrepresented by a **Demand Side Unit Operator**, which together are capable of a **Demand** **Side Unit MW Capacity** equal to or above 4 **MW** (and which is therefore subject to **Central Dispatch** from the **TSO**). Each **Individual Demand Site** comprising an **Aggregated Demand Site** shall be in one currency zone and shall have a **Demand Side Unit MW Capacity** of no greater than **10 MW**. Unless otherwise specified, information submitted in respect of an **Aggregated Demand Site** shall always be at an aggregated level.

**Aggregator** Either a **Generator Aggregator** or a **Demand Side Unit Operator** in respect of an **Aggregated Demand Site**.

**Demand Side Unit Best Correlated Profile** The four **Demand Side Unit Profiles** from one day to eighty-four days prior to the **Dispatch Instruction**, offset to minimise the average absolute error across all the **Meter** periods comprising the **Demand Side Unit Profile** when compared to the **Demand Side Unit Profile** which finishes with the **Dispatch** period, resulting in the four smallest average absolute errors, averaged.

**Demand Side Unit Calculated MWh Response** The value of the half-hour **Demand Side Unit Performance Monitoring Baseline** less the sum of the half-hour **Meter** readings of all the **Individual Demand Sites** that comprise the **Demand Side Unit** aligned to a half-hour **Meter** period.

**Demand Side Unit MW Capacity** The maximum change in **Active Power** that can be achieved by a **Demand Side Unit** on a sustained basis for the duration of the **Demand Side Unit’s Maximum Down Time** by totalling the potential increase in on-site **Active Power Generation** and the potential decrease in on-site **Active Power Demand** at each **Individual Demand Site**.

**Demand Side Unit MWh Response** The equivalent **Energy** in a half-hour **Meter** period of a **Demand Side Unit MW Response** requested in a **Dispatch Instruction**.

**Demand Side Unit MW Response Time** The time as specified by the **Demand Side Unit Operator** in the **Technical Parameters** and is the timeit takes for the **Demand Side Unit Operator** to be able to implement the **Demand Side Unit MW Response** from receipt of the **Dispatch Instruction** from the **TSO.**

**Demand Side Unit Notice Time** The time as specified by the **Demand Side Unit Operator** in the **Technical Paramaters** and is the time it takes for the **Demand Side Unit** to begin ramping to the **Demand Side Unit MW Response** from receipt of the **Dispatch Instruction** from the **TSO**.

**Demand Side Unit Operator** A personwho operates a **Demand Side Unit**, with a **Demand Side Unit MW Capacity** not less than 4 **MW**.**Demand Side Unit Performance An Energy** value for each half-hour **Meter**

**Monitoring Baseline** period while a **Demand Side Unit** is

**Dispatched**. It is the **Demand Side Unit Best Correlated Profile** excluding the first twenty four half-hour **Meter** periods

**Demand Side Unit Performance** The absolute value of the **Demand Side Unit**

**Monitoring Error Calculated MWh Response** less the **Demand Side Unit MWh Response**.

**Demand Side Unit Performance** The absolute value of the **Demand Side Unit**

**Monitoring Percentage Error Calculated MWh Response** less the **Demand Side Unit MWh Response** divided by the **Demand Side Unit MWh Response**.

**Demand Side Unit Profile** Consecutive aggregated **Meter** readings of all **Individual Demand Sites** that comprise a **Demand Side Unit** for each of the full half-hour **Meter** periods in a twelve-hour period plus the duration of **Dispatch**. If the **Demand Side Unit** was **Dispatched** during the period the **Demand Side Unit Calculated MWh Response** in the same half-hour **Meter** periods are added, except in the case of the **Dispatch** being monitored. In this case the accumulated **Energy** calculated from **Demand Side Unit MW Response** from **Generation** operating as a continuous **Synchronous Generating Unit** signal (CC.13.3 (a)) plus the **Demand Side Unit MW Response** from avoided **Demand** consumption and **Generation** operating in **DSU Short-term Synchronous Operating Mode** signal (CC.13.3 (c)) are added.

**Demand Side Unit SCADA Error** The **Demand Side Unit Calculated MWh Response** less the accumulated **Energy** calculated from **Demand Side Unit MW Response** from **Generation** operating as a continuous **Synchronous Generating Unit** signal (CC.13.3 (a)) plus the **Demand Side Unit MW Response** from avoided **Demand** consumption and **Generation** in **DSU Short-term Synchronous Operating Mode** signal (CC.13.3 (c)) in the same half-hour **Meter** period.

**Demand Side Unit SCADA Percentage Error** The **Demand Side Unit Calculated MWh Response** less the accumulated **Energy** calculated from **Demand Side Unit MW Response** from **Generation** operating as a continuous **Synchronous Generating Unit** signal (CC.13.3 (a)) plus the **Demand Side Unit MW Response** from avoided **Demand** consumption and **Generation** operating in **DSU Short-term Synchronous Operating Mode** signal (CC.13.3 (c)) divided by **Demand Side Unit Calculated MWh Response** the in the same half-hour **Meter** period.

**Demand Side Unit Ramp Time** The time it takes for a **Demand Side Unit** to ramp to the **Demand Side Unit MW Response**. It is equal to **the Demand Side Unit MW Response Time** less the **Demand Side Unit Notice Time.**

**Dispatch** The issue by the **TSO** of instructions to a **Generator, Pumped Storage Generator**, **Interconnector Owner**, **Demand Side Unit Operator** or **Generator Aggregator** in respect of its **CDGU**, **Pumped Storage Plant Demand**, **Demand Side Unit,** **Aggregated Generating Units** or **Interconnector** tranche pursuant to SDC2 and the term "**Dispatched**" shall be construed accordingly.”

**DNO Connection Agreement** The bilateral agreement between the **DNO** and the **DNO Demand Customer**, which contains the detail specific to the **DNO Demand Customer**’s connection to the **Distribution System**.

**DNO Demand Customer** A person to whom electrical **Energy** is provided by means of a direct connection to the **Distribution System**.

**DSU Short-term Synchronous Operating Mode** The operation of **Generating Unit(s)** at an **Individual Demand Site** of a **Demand Side Unit** where the **Generating Unit(s)** supplies **Demand Customer’s** or **DSO Demand Customer’s Load** while not **Synchronised** to the **Transmission System** or **Distribution System**. **The Generating Unit(s)** is(are) **Synchronised** to the **Transmission System** or **Distribution System** for short periods of time at **Start-Up** and **Shutdown** of the **Generating Units(s)** to facilitate a smooth transfer of power.

**Individual Demand Site** A single premises of a **Customer** connected to the **Transmission System** or **Distribution System** with a **Demand Side Unit MW Capacity**.

**Maximum Export Capacity** The value (in **MW,** MVA, kW and/or kVA) provided in accordance with the **User’s Connection Agreement** or **DNO Demand Customer’s DNO Connection Agreement**.

**Maximum Import Capacity** The values (kW and/ or kVA) provided in accordance with the **User’s Connection Agreement** or **DNO Demand Customer’s DNO Connection Agreement**.

**Maximum Ramp Down Rate** The maximum **Ramp Down Rate** of a **Demand Side Unit**. In the case of a **Demand Side Unit** which consists of an **Aggregated Demand Site** this shall be the aggregated maximum **Ramp Down Rate** of the **Individual Demand Sites**.

**Maximum Ramp Up Rate** The maximum **Ramp Up Rate** of a **Demand Side Unit**. In the case of a **Demand Side Unit** which consists of an **Aggregated Demand Site** this shall be the aggregated maximum **Ramp Up Rate** of the **Individual Demand Sites**.

**Minimum off time** The minimum time that must elapse from the time of a **Generating Unit Shut Down** before it can be instructed to **Start-Up.**

In the case of **Demand Side Units**, the minimum time that must elapse while the **Demand Side Unit MW Response** is at zero until the next delivery of **Demand Side Unit MW Response**.

**PLANNING CODE**

PC6 PLANNING DATA REQUIREMENTS FROM **USERS**

PC6.3.3 In relation to the submission of data on a routine annual basis, **Standard Planning Data** in every case, and **Detailed Planning Data** if required by the **TSO**, by reasonable notice in advance of the submission ("reasonableness" being judged in this context by reference to the amount of time which it may take to collate the required data), shall (unless there has been no change from the data submitted the previous time, in which case the provisions of PC6.1.4 shall apply) be submitted to the **TSO** annually by **Users** in the following categories:-

(a) **Generators** in respect of all transmission connected **Power Stations**;

(b) **Suppliers**;

(c)all **Large Demand** **Customers.**

(d) **Generators** in respect of **CDGUs** (including **Aggregated Generating Units**) and **Controllable WFPSs** connected to the **Distribution System**.

**(e) Demand Side Unit Operators** in respect of their **Demand Side Units.**

**APPENDIX A**

**PLANNING DATA REQUIREMENTS FOR USERS (OTHER THAN THE DNO)**

**CONNECTED TO THE TRANSMISSION SYSTEM ONLY**

PC.A3.4.2 **Generator Aggregators**

**Aggregators** shall, upon request by the **TSO**, provide to the **TSO** any **Connection Site** and **User System** data which the **TSO** may reasonably deem necessary.

PC.A3.4.3 **Demand Side Unit Operators**

For each **Demand Side Unit Operator**, the following information shall be provided:

1. General Details
2. name of **Demand Side Unit**;
3. address of the **Demand Side Unit Control Facility**;

(iii) address of each **Individual Demand Site(s)** comprising the **Demand Side Unit**;

(iv) Irish Grid Co-ordinates of the Connection Point of each **Individual Demand Site** comprising the **Demand Side Unit**;

(v) Meter Point Reference Number for each **Individual Demand Site** comprising the **Demand Side Unit**;

(vi) the name of the **Bulk Supply Point**(s) to which each **Individual Demand Site** comprising the **Demand Side Unit** is/are normally connected;

(vii) single line diagram for each **Individual Demand Site**;

(viii) details of the operating regime of each **Individual Demand Site** comprising the **Demand Side Unit**, e.g. avoided **Demand** consumption only, combination of avoided **Demand** consumption and operation of **Generation Units**, operation of **Generation Units** only or other;

(ix) details of the operating mode of the **Generation Units** where the **Generation Units** form part of the **Individual Demand Sites** operating regime, e.g. **Non-Synchronous Generating Unit**, short term **Synchronous Generating Unit**, continuous **Synchronous Generating Unit** or other;

(x) details of all **Generation Units** used as part of the **Demand Side Unit**, including the make, model, capacity, MVA rating, fuel type, protection settings and whether it will be used as a standby plant;

(xi) whether a change is required to the **Maximum Export Capacity** or **Maximum Import Capacity** of **Individual Demand Sites** comprising the Demand Side Unit;

(xii) details of the current operation of **Protection** installed to to disconnect **Generation Units** from the **Distribution System** during abnormal system conditions;

(xiii) details of all **Demand** loads with **Demand** reduction capability of 5 MW or greater, including size in MW and **Demand** reduction capability from load;

(xiv) Maximum Import Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);

(xv) Maximum Export Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);

(xvi) proof of a valid **Connection Agreement** for each Demand Customer and proof of a valid **DNO Connection Agreement** for each **DNO** **Demand Customer** that comprises the **Demand Side Unit** clearing showing Maximum Import Capacity and Maximum Export Capacity (if applicable)

(xvii) details of restrictions to the Operation of **Individual Demand Sites** comprising the **Demand Side Unit** (e.g. Northern Ireland Environmental Agency Licence or planning conditions);

(xviii) whether each **Individual Demand Site** comprising the **Demand Side Unit** is currently participating as or part of any **Aggregated Generator Unit**, other **Demand Side Unit or any demand side management scheme**;

(xix) proposed effective date in **Single Electricity Market** for first-time applicants; and

(xx) proposed date for **Grid Code** Compliance Testing.

1. Technical Details

(i) total **Demand Side Unit** **MW Capacity** (MW) of the **Demand Side Unit**;

(ii) **Demand Side Unit MW Capacity** (MW) of each **Individual Demand Site** comprising the **Demand Side Unit**;

(iii) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;;

(iv) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;

(v) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from avoided **Demand** consumption (MW) and on-site **Generation** (**MW**) operating in **DSU Short-term Synchronous Operating Mode**;

(vi) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from avoided **Demand** consumption (MW) or on-site **Generation** (**MW**) operated as a **Non-Synchronous Generating Unit** or as a short term **Synchronous Generating Unit**;

(vii) **Demand Side Unit MW Response Time** of the **Demand Side Unit**;

(viii) **Demand Side Unit Notice Time** of the **Demand Side Unit**;

(ix) **Minimum Down Time** of the **Demand Side Unit**;

(x) **Maximum Down Time** of the **Demand Side Unit**;

(xi) **Minimum off time** of the **Demand Side Unit;**

(xii) **Maximum Ramp Up Rate** of the **Demand Side Unit**;

(xii) **Maximum Ramp Up Rate** of the **Demand Side Unit;**

PC.A3.4.4 **Interconnector Owners**

**Interconnector Owners** shall submit to the **TSO** **Planning Data** of the nature required from other **Users** under the **Planning Code**. This obligation shall be satisfied as at 1 November 2007 by the **Planning Data** already submitted as at that date by the **Interconnector Owner**. This PC.A3.4.3 will be superseded once the **Planning Code** has been updated to include specific data requirements from **Interconnector Owners**.

**APPENDIX B**

**PLANNING DATA REQUIREMENTS FOR USERS CONNECTED TO THE**

**DISTRIBUTION SYSTEM**

PC.B3.3.2 **Generator** **Aggregators**

**Aggregators** shall, upon request by the **TSO**, provide to the **TSO** any connection site and **User System** data which the **TSO** may reasonably deem necessary.

PC.B3.3.3 **Demand Side Unit Operators**

For each **Demand Side Unit Operator**, the following information shall be provided:

1. General Details
2. name of **Demand Side Unit**;
3. address of the **Demand Side Unit Control Facility**;

(iii) address of each **Individual Demand Site(s)** comprising the **Demand Side Unit**;

(iv) Irish Grid Co-ordinates of the Connection Point of each **Individual Demand Site** comprising the **Demand Side Unit**;

(v) Meter Point Reference Number for each **Individual Demand Site** comprising the **Demand Side Unit**;

(vi) the name of the **Bulk Supply Point**(s) to which each **Individual Demand Site** comprising the **Demand Side Unit** is/are normally connected;

(vii) single line diagram for each **Individual Demand Site**;

(viii) details of the operating regime of each **Individual Demand Site** comprising the **Demand Side Unit**, e.g. avoided **Demand** consumption only, combination of avoided **Demand** consumption and operation of **Generation Units**, operation of **Generation Units** only or other;

(ix) details of the operating mode of the **Generation Units** where the **Generation Units** form part of the **Individual Demand Sites** operating regime, e.g. **Non-Synchronous Generating Unit**, short term **Synchronous Generating Unit**, continuous **Synchronous Generating Unit** or other;

(x) details of all **Generation Units** used as part of the **Demand Side Unit**, including the make, model, capacity, MVA rating, fuel type, protection settings and whether it will be used as a standby plant;

(xi) whether a change is required to the **Maximum Export Capacity** or **Maximum Import Capacity** of **Individual Demand Sites** comprising the Demand Side Unit;

(xii) details of the current operation of **Protection** installed to to disconnect **Generation Units** from the **Distribution System** during abnormal system conditions;

(xiii) details of all **Demand** loads with **Demand** reduction capability of 5 MW or greater, including size in MW and **Demand** reduction capability from load;

(xiv) Maximum Import Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);

(xv) Maximum Export Capacity of each **Individual Demand Site** comprising the **Demand Side Unit** (MW);

(xvi) proof of a valid **Connection Agreement** for each Demand Customer and proof of a valid **DNO Connection Agreement** for each **DNO** **Demand Customer** that comprises the **Demand Side Unit** clearing showing Maximum Import Capacity and Maximum Export Capacity (if applicable);

(xvii) whether the **Distribution Network Owner** has been informed about the intention of the **Demand Side Unit Operator** to operate a **Demand Side Unit** (the **Demand Side Unit Operator** is obliged to inform and seek the consent of the **Distribution Network Owner**);

(xviii) details of any special operating or network limitations placed by the **Distribution Network Owner** on the **Demand Side Unit**;

(xix) details of restrictions to the Operation of **Individual Demand Sites** comprising the **Demand Side Unit** (e.g. Northern Ireland Environmental Agency Licence or planning conditions);

(xx) whether each **Individual Demand Site** comprising the **Demand Side Unit** is currently participating as or part of any **Aggregated Generator Unit**, other **Demand Side Unit or any demand side management scheme**;

(xxi) proposed effective date in **Single Electricity Market** for first-time applicants; and

(xxii) proposed date for **Grid Code** Compliance Testing.

1. Technical Details

(i) total **Demand Side Unit** **MW Capacity** (MW) of the **Demand Side Unit**;

(ii) **Demand Side Unit MW Capacity** (MW) of each **Individual Demand Site** comprising the **Demand Side Unit**;

(iii) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;;

(iv) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from on-site Generation (MW) operating as a continuous **Synchronous Generating Unit**;

(v) total **Demand Side Unit MW Capacity** of the **Demand Side Unit** available from avoided **Demand** consumption (MW) and on-site **Generation** (**MW**) operating in **DSU Short-term Synchronous Operating Mode**;

(vi) **Demand Side Unit MW Capacity** of each **Individual Demand Site** comprising the **Demand Side Unit** available from avoided **Demand** consumption (MW) or on-site **Generation** (**MW**) operated as a **Non-Synchronous Generating Unit** or as a short term **Synchronous Generating Unit**;

(vii) **Demand Side Unit MW Response Time** of the **Demand Side Unit**;

(viii) **Demand Side Unit Notice Time** of the **Demand Side Unit**;

(ix) **Minimum Down Time** of the **Demand Side Unit**;

(x) **Maximum Down Time** of the **Demand Side Unit**;

(xi) **Minimum off time** of the **Demand Side Unit**;

(xii) **Maximum Ramp Up Rate** of the **Demand Side Unit**;

(xiii) **Maximum Ramp Down Rate** of the **Demand Side Unit**;

**CONNECTION CONDITIONS**

CC8.5.7 Unless otherwise agreed with the TSO, each Individual Demand Site comprising a Demand Side Unit shall have a Responsible Operator that must be capable of being contacted from the Control Facility of the Demand Side Unit Operator at all times and is capable of being at the Individual Demand Site within 1 hour of request to respond to any query or issue from the Responsible Operator at the Control Facility of the Demand Side Unit Operator.

CC12 GENERATOR **AGGREGATORS**

CC12.1 Each **Aggregator** shall give to the **TSO** such information in relation to **Connection Conditions** related issues from time to time that the **TSO** may reasonably deem necessary.

CC13 **DEMAND SIDE UNITS**

CC13.1 Each **Demand Side Unit** shall, as a minimum, have the following capabilities:

(a) Able to provide **Demand Side Unit MW Response** between 0 MW and the **Demand Side Unit MW Capacity**;

(b) **Maximum Ramp Up Rate** not less than 1.67% per minute of **Demand Side Unit MW Response** as specified in the **Dispatch Instruction**;

(c) **Maximum Ramp Down Rate** not less than 1.67% per minute of **Demand Side Unit MW Response** as specified in the **Dispatch Instruction**.

(d) **Minimum Down ~~-~~Time** not greater than 30 minutes;

(e) **Maximum Down~~-~~ Time** not less than 2 hours;

(f) **Minimum off time** not greater than 2 hours;

(g) **Demand Side Unit MW Response Time** of not greater than 1 hour;

(h) maintain **Demand Side Unit MW Response** at **NI System Frequencies** in the range 49.5Hz to 52Hz;

(i) maintain **Demand Side Unit MW Response** at NI **System Frequencies** within the range 48Hz to 49.5Hzfor a duration of 1 hour;

(j) maintain **Demand Side Unit MW Response** at NI **System Frequencies** within the range 47.0Hz to 48Hz for a duration of 5 minutes; and

(k) maintain **Demand Side Unit MW Response** for a rate of change of **NI System Frequency** up to and including 1.0 Hz per second as measured over a rolling 500 milliseconds period.

On-site generation operated as a continuous **Synchronous Generating Unit** that forms part of a **Demand Side Unit**, shall, as a minimum, have the following capabilities:

(l) maintain **Demand Side Unit MW Response** at **NI System Frequencies** in the range 49.5Hz to 52Hz;

(m) maintain **Demand Side Unit MW Response** at NI **System Frequencies** within the range 48Hz to 49.5Hzfor a duration of 1 hour;

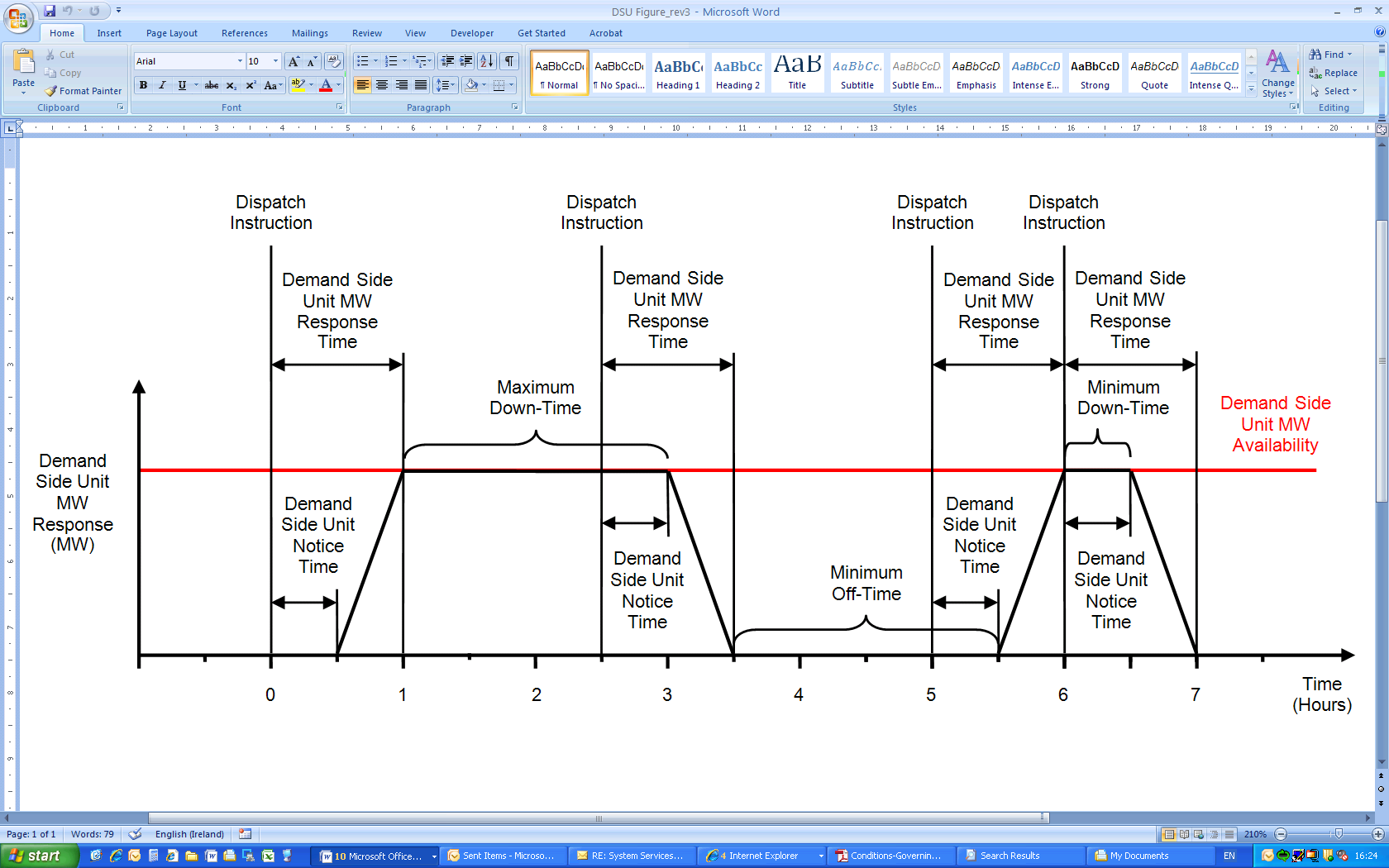
(n) maintain **Demand Side Unit MW Response** at NI **System Frequencies** within the range 47.0Hz to 48Hz for a duration of 5 minutes; and(o) remain synchronised to the **NI System** during a rate of change of **NI System Frequency** of values up to and including 1.0 Hz per second as measured over a rolling 500 milliseconds period.

On-site **Generation** operating in **DSU Short-term Synchronous Operating Mode** that forms part of a **Demand Side Unit**, shall, as a minimum, have the following capabilities:

(p) operate continuously at normal rated output at **NI System Frequencies** in the range 49.5Hz to 52Hz;

CC13.2 The requirements of CC13.1(h) to CC13.1(p) do not apply where:

1. The islanding protection has operated correctly, consistent with the settings agreed with the **TSO** or **DNO** as applicable;
2. The System Frequency has changed at a rate greater that 1.0 Hz per second as measured over a rolling 500 millisecond period; or
3. There is manual intervention by the Generator



CC13.3 Signals and indications required to be provided by **Demand Side Unit Operators** will include but shall not be limited to the following:

1. total aggregated **Demand Side Unit MW Response** from **Generation** operating as a continuous **Synchronous Generating Unit**;
2. aggregated **Demand Side Unit MW Response** from **Generation** operating as a continuous **Synchronous Generating Unit** per **Bulk Supply Point**;
3. total aggregated **Demand Side Unit MW Response** from avoided **Demand** consumption **and Generation** operating in **DSU Short-term Synchronous Operating Mode**;
4. aggregated **Demand Side Unit MW Response** from avoided **Demand** consumption **and Generation** operated in **DSU Short-term Synchronous Operating Mode** per **Bulk Supply Point**;
5. Remaining **Demand Side Unit MW Availability**;
6. **Demand Side Unit MW Response** from each **Individual Demand** **Site** with a **Demand Side Unit MW Capacity** of greater than or equal to 5 **MW**;
7. **MW Output** from **Generation Units** with a capacity greater than or equal to 5 **MW**;
8. Mvaroutput from **Generation Units** with a capacity greater than or equal to 5 **MW** at **Individual Demand Sites** with a **Maximum Export Capacity** specified in the **Connection Agreement** or **DNO Connection Agreement** as applicable, as required by the TSO;
9. Aggregate **MW Output** from **Generation Units** with a combined **Capacity** of greater than or equal to 5 **MW** on an **Individual Demand Site**, as required by the TSO; and
10. **Demand Side Unit MW Response** from each **Individual Demand Site** that comprises the **Demand Side Unit**, as required by the **TSO**.

CC.13.4 **Demand Side Unit Operators** shall provide the **TSO** the specification of the method of aggregation of SCADA from multiple sites. The minimum specifications shall be agreed with the **TSO** in advance and shall include:

1. signals from **Demand Side Unit Operators** shall be relayed to the **TSO** telemetry outstation interfacewhich reflect the **Demand Side Unit MW Response** to an accuracy of within 1 MW of the actual **Demand Side Unit MW Response** within 15 seconds of change occurring to the **Demand Side Unit MW Response**; and
2. a single failure of an item of the **Demand Side Unit Operator’s** equipment will not result in:
   * + - 1. loss of control of more than one **Individual Demand Site**;
         2. loss of **Demand Side Unit MW Response** of more than one **Individual Demand Site**; or
         3. the **Demand Side Unit MW Response** from generation or **Demand Side Unit MW Response** from avoided **Demand** consumption signals being incorrect by more than the **Demand Side Unit MW Capacity** of the **Individual Demand Site** with the highest **Demand Side Unit MW Capacity** comprising the **Demand Side Unit**.

CC15 **FUEL SECURITY CODE**

CC15.1 Each **Generator** whose **Plant** and **Equipment** is connected to the **Transmission System** and each **CDGU** connected to the **Distribution System** agrees to comply with the **Fuel Security Code** to the extent that it is expressed to apply to it and with any instructions from the **TSO** pursuant to the **Fuel Security Code**, including in relation to **CDGUs**, with **Dispatch Instructions** issued by the **TSO**.

**OPERATING CODE NO. 2**

**OPERATIONAL PLANNING**

OC2.3 SCOPE

OC2.3.1OC2 applies tothe **TSO**, **Generators** (in respect of all **Generating Units** connected to the **Transmission System** and in respect of **CDGUs** and **Controllable WFPSs** connected to the **Distribution System**), **Interconnector Owners**, **Generator Aggregators, Demand Side Unit Operators**, the **DNO** and **Large** **Demand Customers**.

OC2.4 INFORMATION EXCHANGE WITH THE **DNO** IN RESPECT OF **INDEPENDENT GENERATING PLANT**

OC2.4.1 Such information as the **TSO** may reasonably require relating to **Independent Generating Plant** connected to the **Distribution System** shall, where required by the **TSO** for the purposes of this OC2, be provided by the **DNO**.

OC2.5 SUMMARY

OC2.5.1 Under OC2 the interaction between the **TSO**, the **DNO,** **Generators** and **Aggregators** will be as follows:-

OC2.5.1 (a) each **Generator** and the **TSO**: in respect of Outagesof **CDGUs** (and/or in the case of a **CCGT Installation**, **CCGT Modules**, as provided under OC2), Controllable WFPSs, Dispatchable WFPSs, Demand Side Units, Aggegated Generators and/or **Power Station Equipment**;

OC2.5.1 (b) the **DNO** and the **TSO**: in respect of **Outages** of **Independent Generating Plant** connected to the **Distribution System** with a **Registered Capacity** of 2 **MW** and greater;

OC2.5.1(c) the **TSO** and each **Generator**: in respect of **Transmission System Outages** relevant to the **Generator's CDGUs** (and/or in the case of a **CCGT Installation**, **CCGT Modules**, therein), **Controllable WFPSs**, and **Dispatchable WFPSs.**

OC2.5.1 (d) the **DNO** and the **TSO**: in respect of **Outage**s on the **Distribution System** relevant to distribution connected **CDGUs**, **Controllable WFPSs**, **Dispatchable WFPSs, Demand Side Units, Generator Aggregators** and **Generators** with distribution connected **Independent Generating Plant** with a **Registered Capacity** of 2 **MW** and greater;

OC2.5.1 (e) the  **TSO** and the **DNO** : in respect of **Outages** of **CDGUs** connected to the **Distribution System** including **Controllable WFPSs**, **Dispatchable WFPSs, Demand Side Units, Aggregated Generating Units** and/or associated **Power Station Equipment**;

OC2.5.1 (f) the **DNO** and the **TSO**: in respect of **Outages** of 33kV circuits on the **Distribution System**; and

OC2.5.1 (g) the **DNO** and the **TSO**: in respect of **Outages** on the **Distribution System** which may affect **Customers** with a **Demand** greater than 10 **MW** and which are connected to the **Distribution System**.

The provisions of this paragraph also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”.

The provisions of this paragraph also apply to **Aggregators** as if “**Generators**” and to a Generator’s units were references to an “**Aggregator**” in respect of a “**Demand Side Unit**” or an “**Generator Aggregator”**.

OC2.5.2 Under OC2 the interaction between the **TSO** and **Large** **Demand Customers** will be in respect of **Transmission System Outages** relevant to each **Large** **Demand Customer.**

OC2.5.3 (a) In relation to all matters to be undertaken pursuant to this OC2, including (without limitation) making requests for **Outages** and supplying information to the **TSO** concerning overruns, each **Generator** must act reasonably and in good faith. Without limitation to such obligation, each **Generator** shall act in accordance with **Prudent Operating Practice** in planning its **Outages** and, in particular, so as to avoid a situation arising in which the **Generator** is obliged to request an **Outage** during the **Outage Planning** process by reason of obligations imposed upon the **Generator** by statute as a consequence of the **Generator** not having planned its **Outages** in accordance with **Prudent Operating Practice**, for example, by not having planned its **Outages** sufficiently far in advance of any statutory time limit. The provisions of this paragraph also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph also apply to **Aggregators** as if “**Generators**” and to a Generator’s units were references to an “**Aggregator**” in respect of a “**Demand Side Unit**” or an “**Generator Aggregator”**.

OC2.5.3 (b) In relation to all matters to be undertaken pursuant to this OC2:

(i) the **DNO** must act reasonably and in good faith; and

(ii) the **DNO** shall procure that

- each **Customer** with a **Demand** greater than 10 **MW** and which is connected to the **Distribution System**, and

- each **Generator** with **Independent Generating Plant** with a **Registered Capacity** of 2 **MW** and greater

* each **Aggregator**

must act reasonably and in good faith.

OC2.5.3 (c)The **TSO** must, in relation to all matters to be undertaken pursuant to this OC2, including (without limitation) the co-ordination of **Generators', Aggregators’** or **Interconnector Owners’ Outages**, act reasonably and in good faith in the discharge of its obligations.

OC2.5.4 Where in this OC2 there are references to outages of **CCGT Modules**, such provisions only apply where the **Power Station Agreement** and/or **Generating Unit Agreement** relating to the **CCGT Installation** of which the **CCGT Module** forms part so provides.

OC2.6 **OUTAGE** PLANNING PROCEDURES FOR **CDGUs,** Dispatchable WFPSs, Controllable WFPSs, AND/OR **POWER STATION EQUIPMENT**

OC2.6.1 Indicative Term **Operational Planning** - Planning for Years 4 to 7

The provisions of this section OC2.6 shall only apply if reasonably required and requested by the **TSO**. In each calendar year:

OC2.6.1 (a) By the End of March

Each **Generator** will provide the **TSO** in writing with a suggested **Indicative Outage Programme** for Years 4 to 7 which will contain the following information in relation to each proposed **Planned Outage** in the suggested **Provisional Outage Programme**:-

(i) identity of the **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Controllable WFPSs, Dispatchable WFPSs (or Generating Unit(s) therein) and/or the **Power Station Equipment** concerned;

(ii) **MW** concerned (i.e. **MW** which will not be **Available** as a result of the **Outage** and that which will, notwithstanding the **Outage**, still be **Available**, if any);

(iii) required duration of **Outage**;

(iv) preferred **Start** **Date** or range of **Start Dates**;

(v) whether the **Outage** is a **Flexible Planned Outage** or an **Inflexible Planned Outage**, provided that the **Generator** must not declare an **Outage** to be an **Inflexible Planned Outage** unless **Prudent Operating Practice** would not permit the **Outage** to be declared as a **Flexible Planned Outage**;

(vi) if it is a **Flexible Planned Outage**,

(aa) the period for which the **Outage** could be deferred at the request of the **TSO**, which period shall be not less than 30 days in length;

(bb) the period for which the **Outage** could be advanced at the request of the **TSO**, which period shall be not less than 10 days in length; and

(vii) where relevant, that the **Generator** wishes to take the **Outage** in order to enable it to comply with obligations relating to the operation and maintenance of **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Controllable WFPSs or Dispatchable WFPS (or Generating Unit(s) therein) and/or **Power Station Equipment** imposed upon the **Generator** by statute and, if so, the latest date by which the **Outage** must be taken.

In relation to sub-paragraph (v), the **Generator** must provide the **TSO** with such evidence as it may reasonably require in order to substantiate the declaration as an **Inflexible Planned Outage** and, if the **Generator** fails to establish to the **TSO 's** reasonable satisfaction that the **Outage** is required to be an **Inflexible Planned Outage**, the **Outage** shall be deemed to have been submitted as a **Flexible Planned Outage** with an attendant **Flexible Planned Outage Period** of 10 days for advancement and 30 days for deferment.

Details of proposed **Outages** for years 4 to 7 are required to signal adequately in advance major **Outages** which could impact on capacity adequacy or on the **TSO’s** or the **Other TSO’s** **Transmission Outage Maintenance and Development Programmes** and are indicative only. In rolling over the **Provisional Outage Programme** from one year to the next each **Generator** shall not be constrained in making any submission to any previous **Indicative Outage Programme.**

The provisions of this paragraph OC2.6.1(a) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”.

The provisions of this paragraph OC2.6.1(a) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.1 (b) Between the End of March and the End of September

(i)The **TSO** will be calculating the weekly capacity required from **Generating Plant** in Years 4 and 7 taking into account insofar as the **TSO** may consider to be appropriate:-

(aa) **Demand Forecasts**;

(bb) The **TSO's** estimate of **Customer Demand Management**;

(cc) forecast **Availability** of **CDGUs**;

(dd) forecast output available from any **Interconnectors**;

(ee) the **Margin** as set by the **TSO**;

(ff) **NI System** constraints and constraints on the **Inter-jurisdictional** **Tie Line** between Northern Ireland and the Republic of Ireland; and

(gg) **NI System Outages** to ensure that, in general, these have the least restraint on **CDGU**, Dispatchable WFPS, Controllable WFPS and **Power Station Equipment Outages**.

(ii) The calculation under (i) will, with anticipated **Outages** other than **Planned Outages** then taken into account, effectively define the envelope of opportunity for **Planned Outages** of **CDGUs,** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, Controllable WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment**.

During this period the **TSO** may, as appropriate, contact each **Generator** which has supplied information to seek clarification on information received or such additional relevant information as is reasonable. The provisions of this paragraph OC2.6.1(b) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.1(b) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.2 Long Term **Operational Planning** - Planning for Years 2 and 3

In each calendar year:

OC2.6.2 (a) By the End of March

Each **Generator** will provide the **TSO** in writing with a suggested **Provisional Outage Programme** for Years 2 and 3 (that part of the programme relating to Year 2 showing any updates to the programme for Year 3 which, by effluxion of time, has become that for Year 2) which will contain the following information in relation to each proposed **Planned Outage** in the suggested **Provisional Outage Programme**:-

(i) identity of the **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Controllable WFPSs, Dispatchable WFPSs (or Generating Unit(s) therein) and/or the **Power Station Equipment** concerned;

(ii) **MW** concerned (i.e. **MW** which will not be **Available** as a result of the **Outage** and that which will, notwithstanding the **Outage**, still be **Available**, if any);

(iii) required duration of **Outage**;

(iv) preferred **Start** **Date** and **Start Time** or range of **Start Dates** and **Start Times**;

(v) whether the **Outage** is a **Flexible Planned Outage** or an **Inflexible Planned Outage**, provided that the **Generator** must not declare an **Outage** to be an **Inflexible Planned Outage** unless **Prudent Operating Practice** would not permit the **Outage** to be declared as a **Flexible Planned Outage**;

(vi) if it is a **Flexible Planned Outage**,

(aa) the period for which the **Outage** could be deferred at the request of the **TSO**, which period shall be not less than 30 days in length;

(bb) the period for which the **Outage** could be advanced at the request of the **TSO**, which period shall be not less than 10 days in length; and

(vii) where relevant, that the **Generator** wishes to take the **Outage** in order to enable it to comply with obligations relating to the operation and maintenance of **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Controllable WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment** imposed upon the **Generator** by statute and, if so, the latest date by which the **Outage** must be taken.

In relation to sub-paragraph (v), the **Generator** must provide the **TSO** with such evidence as it may reasonably require in order to substantiate the declaration as an **Inflexible Planned Outage** and, if the **Generator** fails to establish to the **TSO 's** reasonable satisfaction that the **Outage** is required to be an **Inflexible Planned Outage**, the **Outage** shall be deemed to have been submitted as a **Flexible Planned Outage** with an attendant **Flexible Planned Outage Period** of 10 days for advancement and 30 days for deferment.

The updates to the programme for Year 3 when, by effluxion of time, Year 3 has become Year 2, may only reflect the **Generator**'s reasonable response to changed circumstances and changes which, in the context of the **Provisional Outage Programme** as a whole, are minimal in their effect on the operation of the **NI System**; otherwise it must reflect the **Provisional Outage Programme** for Year 3 issued the previous September.

The provisions of this paragraph OC2.6.2(a) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.2(a) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.2 (b) Between the End of March and the End of September

(i)The **TSO** will be calculating the weekly capacity required from **Generating Plant** in Years 2 and 3 taking into account insofar as the **TSO** may consider to be appropriate:-

(aa) **Demand Forecasts**;

(bb) The **TSO's** estimate of **Customer Demand Management**;

(cc) forecast **Availability** of **CDGUs**;

(dd) forecast output available from any **Interconnectors**;

(ee) the **Margin** as set by the **TSO**;

(ff) **NI System** constraints and constraints on the **Inter-jurisdictional** **Tie Line** between Northern Ireland and the Republic of Ireland; and

(gg) **NI System Outages** to ensure that, in general, these have the least restraint on **CDGU**, Dispatchable WFPS, Controllable WFPS and **Power Station Equipment Outages**.

(ii) The calculation under (i) will, with anticipated **Outages** other than **Planned Outages** then taken into account, effectively define the envelope of opportunity for **Planned Outages** of **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, Controllable WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment**.

During this period the **TSO** may, as appropriate, contact each **Generator** which has supplied information to seek clarification on information received or such additional relevant information as is reasonable. The provisions of this paragraph OC2.6.2 (b) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.2(b) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.2 (c) By the End of September

(i)The **TSO** will, in conjunction with the **Other TSO** and having taken into account the information notified to it pursuant to (a), the factors specified in (b) and, having discussed it with the **Generator** if appropriate, provide each **Generator** in writing with a **Provisional Outage Programme** showing the **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, **Controllable** WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment** it may potentially withdraw from service during each week of Years 2 and 3 for a **Planned** **Outage** (including, for the avoidance of doubt, both **Flexible Planned Outages** and **Inflexible Planned Outages**) and showing the **Flexible Planned Outage Periods**, by way of amendment to, or confirmation of, the suggested **Provisional Outage Programme** submitted by the **Generator**. When preparing the **Provisional Outage Programme** with respect to an **Interconnector**, the **TSO** shall take into account the arrangements it has in place under its Operating procedures with National Grid Electricity Transmission.

(ii) The **Provisional Outage Programme** may differ from the suggested **Provisional Outage Programme** as follows:-

(aa) **Flexible Planned Outages** (and associated **Flexible Planned Outage Periods**) and **Inflexible Planned Outages** may have been moved to co-ordinate all **Outage** proposals received by the **TSO** or generally for reasons relating to the proper operation of the **NI System** and the **Other TSO’s Transmission System**. When dealing with Year 2, the **TSO** will give priority to including proposed **Inflexible Planned Outages** for the dates proposed by the **Generator** in the case of newly proposed **Inflexible Planned Outages** and for the dates included in the **Provisional Outage Programme** prepared the previous September in the case of **Inflexible Planned Outages** which were included in that **Provisional Outage Programme**;

(bb) a **Flexible Planned Outage** may have been re-designated as an **Inflexible Planned Outage**;

(cc) in addition, when preparing the **Provisional Outage Programmes** for Year 3 and for Year 2, where in the opinion of the **TSO** the **Licence Standards**could not otherwise be met, the **TSO** may request that a **Flexible Planned Outage** proposed by the **Generator** be deferred to a specific date (with an attendant **Flexible Planned Outage Period**) in the following year (then Year 4 or Year 3, as the case may be) and given priority over all other **Outages** in subsequent planning for that year. The **Generator** must accept such request unless this would not be in accordance with **Prudent Operating Practice**, in which case (subject to (iii) below) the **Outage** shall be included in the **Provisional Outage Programme** for Year 3 or Year 2, as the case may be;

provided that in Year 2 only (but not in Year 3) the **TSO** may not move a **Planned Outage** relating to which the **Generator** has informed the **TSO** under OC2.6.2(a)(vii) that it needs it to comply with statutory obligations, if to do so would result in the **Generator** being in breach of those statutory obligations. However, the **TSO** may discuss the **Planned Outage** with the **Generator** and may request the **Generator** to approach the relevant authorities for an extension of time in order to avoid the breach of those statutory obligations. The **Generator** must accede to that request and use reasonable endeavours to obtain such an extension. In the case of a **Generator** with PPA **CDGUs**, the provisions of GC13.2 shall be imported into (and for the purposes of the **TSO Licence**, regarded as forming part of) this OC2**.**6.2(c)(ii). The **Generator** must, in all cases, inform the **TSO** of the position. In the event that an extension is obtained, the **TSO** may (subject to the other provisions of this paragraph (c)(ii)) move the **Planned Outage** accordingly.

(iii) In addition, where in the opinion of the **TSO** the **Licence Standards** could not otherwise be met, the **TSO** may (by giving the **Generator** a written notice designated as being under this OC2.6.2(c)(iii)) request:-

(aa) that a **Flexible Planned Outage** or an **Inflexible Planned Outage** which:-

(1) (where planning for Year 3) was requested by the **Generator** (and in the case of a **Flexible Planned Outage** was not deferred to Year 4 under (ii)(cc) above); or

(2) (where planning for Year 2) was shown in the **Provisional Outage Programme** for such year (prepared the previous September as the Year 3 programme) or is newly requested by the **Generator** (such request not reflecting a change in any **Outage** included in the **Provisional Outage Programme** prepared the previous September as the Year 3 programme);

be excluded from the **Provisional Outage Programme**; or

(bb) that an **Inflexible Planned Outage** which was proposed by the **Generator** be re-designated as a **Flexible Planned Outage** (with an attendant **Flexible Planned Outage Period** not exceeding 10 days for advancement and 30 days for deferment).

In the case of a **Generator** with **PPA CDGUs**, the provisions of GC13.1 shall be imported into (and for the purposes of the **TSO** **Licence**, regarded as forming part of) this OC2.6.2(c)(iii).

(iv) Subject to (iii) above, the amendments may be made by the **TSO** in relation to Year 2, even if the offered **Planned Outages** in the suggested **Provisional Outage Programme** reflect the **Provisional Outage Programme** for Year 3 issued the previous September, to the extent necessary for the **TSO** to carry out its obligations in relation to **Operational Planning**.

The provisions of this paragraph OC2.6.2(c) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.2(c) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.2 (d) By the End of October

(i) Where a **Generator** objects to the **Provisional Outage Programme** showing the **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, Controllable WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment** it can withdraw from service during each week of Years 2 and 3 for **Planned Outage** it may contact the **TSO** to explain its concerns and the **TSO** and that **Generator** will then discuss the problem and seek to resolve it.

(ii) The resolution of the problem may require the **TSO** to contact other **Generators** and joint meetings of parties may be convened by the **TSO**.  A **Generator** which notifies the **TSO** of its objections in accordance with (i) above may request that such a meeting be convened and the **TSO** will give due and reasonable consideration to such request. The need for further discussions, be they on the telephone or at meetings, can only be determined at the time.

(iii) In the event of the above discussions not producing an agreed result, the **TSO** will determine the **Provisional Outage Programme**. With respect to an **Interconnector**, when determining the **Provisional Outage Programme**, the **TSO** shall take into account the arrangements it has in place under its Operating procedures with National Grid Electricity Transmission.

(iv) This paragraph (d) does not override paragraph (c) above.

The provisions of this paragraph OC2.6.2(d) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.2(d) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.3 Medium Term **Operational Planning** - Planning for Year 1

The **Outage** programme for Year 2 forming part of the **Provisional Outage Programme** established under OC2.6.2 will become the Outage programme for Year 1 (until updated in accordance with this OC2.6.3) when, by effluxion of time, Year 2 becomes Year 1.

In each calendar year:

OC2.6.3 (a) By the End of March

Each **Generator** will provide the **TSO** in writing with its suggested **Final Outage Programme** for Year 1 (showing any updates to the outage programme for Year 2 which, by effluxion of time, has become that for Year 1), which will then, in accordance with this OC2, become the **Final Outage Programme**.  For the avoidance of doubt, the suggested **Final Outage Programme** will contain the following information in relation to each proposed **Planned Outage** in the suggested **Final Outage Programme**:-

(i) identity of the **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, Controllable WFPSs (or Generating Unit(s) therein) and/or the **Power Station Equipment** concerned;

(ii) **MW** concerned (i.e. **MW** which will not be **Available** as a result of the **Outage** and that which will, notwithstanding the **Outage**, still be **Available** (if any));

(iii) required duration of **Outage**;

(iv) preferred **Start Date** and **Start Time** or range of **Start Dates** and **Start Times**;

(v) whether the **Outage** is a **Flexible Planned Outage** or an **Inflexible Planned Outage**, provided that the **Generator** must not declare an **Outage** to be an **Inflexible Planned Outage** unless **Prudent Operating Practice** would not permit the **Outage** to be declared as a **Flexible Planned Outage**;

(vi) if it is a **Flexible Planned Outage**,

(aa) the period for which the **Outage** could be deferred at the request of the **TSO**, which period shall be not less than 30 days in length;

(bb) the period for which the **Outage** could be advanced at the request of the **TSO**, which period shall be not less than 10 days in length; and

(vii) where relevant, that the **Generator** wishes to take the **Outage** in order to enable it to comply with obligations relating to the operation and maintenance of **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, Controllable WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment** imposed upon the **Generator** by statute and, if so, the latest date by which the **Outage** must be taken.

In relation to sub-paragraph (v), the **Generator** must provide the **TSO** with such evidence as it may reasonably require in order to substantiate the declaration as an **Inflexible Planned Outage** and, if the **Generator** fails to establish to the **TSO** **'s** reasonable satisfaction that the **Outage** is required to be an **Inflexible Planned Outage**, the **Outage** shall be deemed to have been submitted as a **Flexible Planned Outage** with an attendant **Flexible Planned Outage Period** of 10 days for advancement and 30 days for deferment.

The updates to the programme for Year 2 when, by effluxion of time, Year 2 has become Year 1, may only reflect the **Generator's** reasonable response to changed circumstances and changes which, in the context of the **Provisional Outage Programme** as a whole, are minimal in their effect on the operation of the **NI System** and the **Other TSO’s Transmission System**; otherwise it must reflect the **Provisional Outage Programme** for Year 2 issued the previous September.

The provisions of this paragraph OC2.6.3(a) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.3(a) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.3 (b) Between the End of March and the End of June

The **TSO** will be considering the suggested **Final Outage Programme** in the light of the factors set out in OC2.6.2(b) and the requirement for **Minimum Demand Regulation** and will be analysing whether the **Margin** for the period can be met. With respect to an **Interconnector**, when considering the **Final Outage Programme**, the **TSO** shall take into account the arrangements it has in place under its Operating procedures with National Grid Electricity Transmission.

OC2.6.3 (c) By the End of June

(i)The **TSO** will provide each **Generator** in writing with a draft **Final Outage Programme** showing the **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, **Controllable** WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment** it may potentially withdraw from service during each week of Year 1 for a **Planned Outage** (including, for the avoidance of doubt, both **Flexible Planned Outages** and **Inflexible Planned Outages**) and showing the **Flexible Planned Outage Periods**, by way of amendment to, or confirmation of, the suggested **Final Outage Programme** submitted by the **Generator**.  With respect to an **Interconnector**, when preparing the draft **Final Outage Programme**, the **TSO** shall take into account the arrangements it has in place under its Operating procedures with National Grid Electricity Transmission.

(ii) The draft **Final Outage Programme** may differ from the suggested **Final Outage Programme** as follows:-

(aa) **Flexible Planned Outages** (and associated **Flexible Planned Outage Periods**) may have been moved to co-ordinate all **Outage** proposals received by the **TSO** or generally for reasons relating to the proper operation of the **NI System** and the **Other TSO’s Transmission System**;

(bb) a **Flexible Planned Outage** may have been re-designated as an **Inflexible Planned Outage**;

provided that the **TSO** may not move a **Planned Outage** relating to which the **Generator** has informed the **TSO** under OC2.6.3(a)(vii) that it needs it to comply with statutory obligations, if to do so would result in the **Generator** being in breach of those statutory obligations. However, the **TSO** may discuss the **Planned Outage** with the **Generator** and may request the **Generator** to approach the relevant authorities for an extension of time in order to avoid the breach of those statutory obligations. The **Generator** must accede to that request and use reasonable endeavours to obtain such an extension. In the case of a **Generator** with **PPA CDGUs**, the provisions of GC13.2 shall be imported into (and, for the purposes of the the **TSO** **Licence**, regarded as forming part of) this OC2.6.3(c)(ii). The **Generator** must, in all cases, inform the **TSO** of the position. In the event that an extension is obtained the **TSO** may (subject to the other provisions of this paragraph (c)(ii)) move the **Planned Outage** accordingly.

(iii) In addition, where in the opinion of the **TSO** the **Licence Standards** could not otherwise be met, the **TSO** may (by giving to the **Generator** a written notice designated as being under this OC2.6.3(c)(iii)) request:

(aa) that a **Flexible Planned Outage** or an **Inflexible Planned Outage** which was shown in the **Provisional Outage Programme** (prepared the previous September as the Year 2 programme) or is newly requested by the **Generator** (such request not reflecting a change in any **Outage** included in the **Provisional Outage Programme** prepared the previous September as the Year 2 programme) be excluded from the **Provisional Outage Programme**; or

(bb) that an **Inflexible Planned Outage** which was shown in the **Provisional Outage Programme** prepared the previous September as the Year 2 programme, be re-designated as a **Flexible Planned Outage** (with an attendant **Flexible Planned Outage Period** not exceeding 10 days for advancement and 30 days for deferment), or that the **Start Date** thereof (shown in the **Provisional Outage Programme** prepared the previous September) be moved.

In the case of a **Generator** with **PPA CDGUs**, the provisions of GC13.1 should be imported into (and, for the purposes of the **TSO** **Licence**, regarded as forming part of) this OC2.6.3(c)(iii).

(iv) Subject to sub-paragraph (iii) above, the amendments may be made by the **TSO** in relation to Year 1 even if the offered **Planned Outages** in the suggested **Provisional Outage Programme** reflect the **Provisional Outage Programme** for Year 2 issued the previous September to the extent necessary for the **TSO** to carry out its obligations in relation to **Operational Planning**.

The provisions of this paragraph OC2.6.3(c) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.3(c) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.3 (d) By the End of July

Where a **Generator, an Aggregator** or an **Interconnector Owner** objects to any changes to the suggested **Final Outage Programme**, equivalent provisions to those set out in OC2.6.2(d) will apply.

OC.2.6.3 (e) By the end of August

The **DNO** will provide the **TSO** in writing with details of **Outages** of **Independent Generating Plant** connected to the **Distribution System** with a **Registered Capacity** of 2 **MW** and greater.

OC2.6.3 (f) Between the End of June and the End of September

The **TSO** will be considering the draft **Final Outage Programme** in the light of the factors set out in OC2.6.2(b), any changes as a result of (d) above and the requirement for **Minimum Demand Regulation** and will be analysing whether the **Margin** for the period can be met. With respect to an **Interconnector**, when considering the draft **Final Outage Programme**, the **TSO** shall take into account the arrangements it has in place under its Operating procedures with National Grid Electricity Transmission.

OC2.6.3 (g) By the End of September

(i)The **TSO** will notify each **Generator** in writing of any further changes (if any) to the draft **Final Outage Programme** by the issue of a **Final Outage Programme** showing the **CDGUs** (or, in the case of a **CCGT Installation**, **CCGT** **Module(s)**), Dispatchable WFPSs, Controllable WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment** it may potentially withdraw from service during each week of Year 1 for a **Planned Outage** and showing the **Flexible Planned Outage Periods**.

(ii) The **TSO** will provide the **DNO** in writing with an extract from the latest copy of the **Final Outage Programme** showing:

(aa) the identity of **CDGUs**, **Controllable WFPSs**, **Dispatchable WFPSs** (or **Generating Unit(s)** therein) and/or the **Power Station Equipment** connected to the **Distribution System** concerned;

(bb) **MW** concerned (i.e. **MW** which will not be available as a result of the **Outage**); and

(cc) the start date and duration of the **Outage**.

(iii) The **Final Outage Programme** may differ from the draft **Final Outage Programme** as follows:-

(aa) **Flexible Planned Outages** (and associated **Flexible Planned Outage Periods**) may have been moved to co-ordinate all **Outage** proposals received by the **TSO** or generally for reasons relating to the proper operation of the **NI** **System** and the **Other TSO’s Transmission System**;

(bb) a **Flexible Planned Outage** may have been re-designated as an **Inflexible Planned Outage**;

provided that the **TSO** may not move a **Planned Outage** relating to which the **Generator** has informed the **TSO** under OC2.6.3(a)(vii) that it needs it to comply with statutory obligations, if to do so would result in the **Generator** being in breach of those statutory obligations. However, the **TSO** may discuss the **Planned Outage** with the **Generator** and may request the **Generator** to approach the relevant authorities for an extension of time in order to avoid the breach of those statutory obligations. The **Generator** must accede to that request and use reasonable endeavours to obtain such an extension. In the case of a **Generator** with **PPA CDGUs**, the provisions of GC13.2 shall be imported into (and for the purposes of the **TSO** **Licence**, regarded as forming part of) this OC2.6.3(g)(iii). The **Generator** must, in all cases, inform the **TSO** of the position. In the event that an extension is obtained, the **TSO** may (subject to the other provisions of this paragraph (g)(iii)) move the **Planned Outage** accordingly.

(iv) In addition, where in the opinion of the **TSO** the **Licence Standards** could not otherwise be met, the **TSO** may (by giving the **Generator** a written notice designated as being under this OC2.6.3(g)(iv)) request:

(aa) that a **Flexible Planned Outage** or an **Inflexible Planned Outage** which was shown in the draft **Final Outage Programme** be excluded from the **Final Outage Programme**; or

(bb) that an **Inflexible Planned Outage** which was shown in the draft **Final Outage Programme** be re-designated as a **Flexible Planned Outage** (with an attendant **Flexible Planned Outage Period** not exceeding 10 days for advancement and 30 days for deferment) or that the **Start Date** thereof (shown in the draft **Final Outage Programme**) be moved;

In the case of a **Generator** with **PPA CDGUs**, the provisions of GC13.1 shall be imported into (and, for the purposes of the **TSO** **Licence**, regarded as forming part of) this OC2.6.3(g)(iv).

The provisions of this paragraph OC2.6.3(g) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.3(g) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.4 Short Term **Operational Planning** - Planning for Year 0

Throughout each calendar year and from 1st October of the preceding year:

OC2.6.4 (a)The **TSO** will monitor the **Margin** continuously in the light of any movement of **Planned Outages**, the factors specified in OC2.6.2(b)(i), the incidence of **Outages** other than **Planned Outages** and the requirement for **Minimum Demand Regulation**.

OC2.6.4 (b) The **DNO** will provide the **TSO** in writing with such information as the **TSO** may reasonably require relating to distribution connected **Independent Generating Plant** with a **Registered Capacity** of 2 **MW** and greater including information updates on planned **Outages**.

OC2.6.4 (c) The **TSO** shall ensure the **DNO** is provided with any updated information regarding **Outages** of distribution connected **CDGUs**, **Controllable WFPSs** and **Dispatchable WFPSs**, and in particular:

(i) the identity of distribution connected **CDGUs**, **Controllable WFPSs**, **Dispatchable WFPSs** (or **Generating Unit(s)** therein) and/or the **Power Station Equipment** concerned;

(ii) **MW** concerned (i.e. **MW** which will not be **Available** as a result of the **Outage**); and

(iii) the start date and duration of the **Outage**.

The provisions of this paragraph OC2.6.4(c) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.4 (d) **Flexible Planned Outage** Movements

In the case of a **Flexible Planned Outage**, the **TSO** may, upon giving a **Generator** written notice of not less than 7 days (in the case of advancement, before the advanced **Start Date** and in the case of deferral, before the original **Start Date**) require the **Start Date** or **Start Time** of the **Flexible Planned Outage** to be advanced or deferred within the **Flexible Planned Outage Period**, and the **Generator** will take that **Outage** in accordance with the revised timing set out in that notice.  Such written notice may be given in the preceding year where the **TSO** could not otherwise give the **Generator** a sufficient period of notice. The provisions of this paragraph OC2.6.4(d) also apply to **Interconnector Owners** as if references to “**Generator**” were references to an “**Interconnector Owner**”. The provisions of this paragraph OC2.6.4(d) also apply to **Aggregators** as if references to “**Generator**” were references to an “**Aggregator**”.

OC2.6.4 (e) Amendments to **Planned Outages**

In the case of:-

(i) a **Flexible Planned Outage** which the **TSO** would like to move outside the **Flexible Planned Outage Period**; or

(ii) a **Flexible Planned Outage** which the **TSO** would like to move within the **Flexible Planned Outage Period** on less than seven days' notice (in the case of advancement, before the advanced **Start Date** and, in the case of deferral, before the original **Start Date**);

(iii) an **Inflexible Planned Outage** which the **TSO** would like to move;

the **TSO** may, upon giving a **Generator** written notice, request that the **Start Date** or **Start Time** of a **Planned Outage** be advanced or deferred.  If the **Generator** agrees to such advancement or deferral, or the **TSO** and the **Generator** agree to some other advancement or deferral, the **Generator** will take the **Outage** in accordance with that agreement. The provisions of this paragraph OC2.6.4(e) also apply to **Interconnector Owners** as if references to “**Generator**” were references to an “**Interconnector Owner**”. The provisions of this paragraph OC2.6.4(e) also apply to **Aggregators** as if references to “**Generator**” were references to an “**Aggregator**”.

OC2.6.4 (f) A **Generator** may, on reasonable grounds, by notice in writing submitted to the **TSO** at any time during Year 0, request that a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein) and/or Generating Unit(s) within a Dispatchable WFPSs or a Controllable WFPS, for which there is a **Flexible Planned Outage** or an **Inflexible Planned Outage**, as specified in the **Final Outage Programme**, remain in service and that one or more of the other **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein) and/or Generating Unit(s) within a Dispatchable WFPSs or a Controllable WFPS, as the case may be, at the same **Power Station** (having substantially the same **Contracted Capacity** / **Registered Capacity** (**PPA** plant / non-**PPA** plant respectively) and **Contracted Technical Parameters,** or equivalent parameters in the case of **CCGT Modules**, **CDGUs**other than PPA **CDGUs**, and/or Generating Unit(s) within a Dispatchable WFPSs or a Controllable WFPS) be permitted to be taken out of service during the period for which such **Flexible Planned Outage** or **Inflexible Planned Outage** has been planned. The **TSO** shall not unreasonably withhold its consent to such substitution and, if the **TSO** does consent, the **Final Outage Programme** shall be amended and the **Generator** shall be entitled to take the **Outage** accordingly. The provisions of this paragraph OC2.6.4(f) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.4(f) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.4 (g) **Short Term Planned Maintenance Outage**

(i) A **Generator** may at any time in Year 0 request the **TSO**, by giving not less than 7 days' notice before the earliest **Start Date**, for a **Short Term Planned Maintenance Outage**.  The request notice must contain the following information:-

(aa) identity of the **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, Controllable WFPS(s) (or Generating Unit(s) therein) and/or the **Power Station Equipment** concerned;

(bb) **MW** concerned (i.e.**MW** which would not be **Available** as a result of the **Outage** and that which would, notwithstanding the **Outage**, still be **Available** (if any));

(cc) required duration of **Outage** (which must not exceed 72 hours); and

(dd) preferred **Start Date** and **Start Time** or range of **Start Dates** and **Start Times**.

The **Generator** may (if it is the case), in addition, state that the **Outage** is required for the purposes of maintaining the brush gear of a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or a Dispatchable WFPSs or a Controllable WFPS (or Generating Unit(s) therein), in accordance with (v) below.

(ii) On receipt of a request notice under (i) above, the **TSO** shall consider the request and shall, having discussed the position with the **Generator**, reply within one **Business Day** in writing indicating:-

(aa) acceptance of the request, confirming the requested **Start Time** and duration of the **STPM Outage**;

(bb) proposals for the advancement or deferment of the **STPM Outage** if taken, indicating alternative **Start Time** and duration; or

(cc) rejection of the request.

(iii) If the **TSO** has accepted the request, the **STPM Outage**, if taken, must be taken by the **Generator** in accordance with the request.  If the **TSO** has indicated an alternative **Start Time** and/or duration, the **TSO** and the **Generator** must discuss the alternative and any other options which may arise during the discussions.  If agreement is reached, then the **Outage**, if taken, must be taken by the **Generator** in accordance with the agreement.  If the request is refused by the **TSO** or if agreement is not reached then, subject to (iv) below, the **Outage** may not be taken by the **Generator**.

(iv) If, in respect of a particular **CDGU**, Dispatchable WFPSs, Controllable WFPS or item of **Power Station Equipment**, the **TSO** has rejected requests made under (i) above on two successive occasions which were not less than 7 days apart, the **TSO** may not reject a third request.  However, the **TSO** may require that such **Outage**, if it is to be during the three months of maximum winter **Demand**, be deferred if in the **TSO**'s reasonable opinion (were the **Outage** not to be deferred):

(aa) the **Licence Standards** could not be met; or

(bb) there would otherwise be insufficient generating capacity to meet forecast **Demand** and the **Margin**;

such deferral to be for so long as those circumstances exist, but in any event not be beyond the end of the month following the end of the three months of maximum winter **Demand**.  For the avoidance of doubt, such provision is without prejudice to the **TSO 's** rights under OC2.6.7.

(v) Where a **Generator** has requested an **STPM Outage** in respect of a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein), which the **Generator** identified in the notice served under (i) above as requiring such **Outage** for the purposes of routine brush gear maintenance, the **TSO** shall permit the **Generator** to take the **Outage** within 14 days after the date of service of the request at such time as the **TSO** shall, in its absolute discretion, determine.

(vi) In the event that an **STPM Outage** is scheduled pursuant to this OC2.6.4(g), the **TSO** shall by notice in writing confirm the details thereof within one **Business Day** after the details of the **STPM Outage** have been settled. Such notice shall contain the following information:-

(aa) the identity of the **CDGU(s)** (or in the case of a **CCGT Installation(s)**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS(s) (or Generating Unit(s) therein) and/or the **Power Station Equipment** concerned;

(bb) **MW** concerned (i.e. **MW** which will not be **Available** as a result of the **Outage** and that which will, notwithstanding the **Outage**, still be **Available** (if any));

(cc) duration of the **Outage**; and

(dd) the **Start Date** and **Start Time**.

The provisions of this paragraph OC2.6.4(g) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.4(g) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.5 **Notified Unplanned Outages**

OC2.6.5 (a) A **Generator** must, if it considers that a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or a Dispatchable WFPSs and/or a Controllable WFPS (or Generating Unit(s) therein) and/or an item of **Power Station Equipment** will require an **Outage** which cannot reasonably be deferred to become a **Planned Outage** or a **Short Term Planned Maintenance Outage** but of which it has some warning, give the **TSO** as much notice as is reasonably possible.  Such **Outage** is known as an **Notified Unplanned Outage** and the **Generator's** notice as an **Outage Notice**.  Such notice must include an identification of the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment**, as the case may be, the expected **Start Date** and **Start Time** and duration of the **Notified Unplanned Outage** and the nature of the **Outage** together with the **MW** concerned (i.e. **MW** which will not be **Available** as a result of the **Outage** and that which will still be **Available** (if any)). The TSO must acknowledge such notification as soon as reasonably possible after the notification was received by the TSO. The provisions of this paragraph OC2.6.5(a) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.5(a) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generated Unit**” or a “**Demand Side Unit**”.

OC2.6.5 (b)The TSO may request the **Generator** to advance or defer the **Outage** and if the **Generator** agrees to such a request, he shall send the TSO a written notice confirming this agreement, which the TSO will acknowledge, and the **Generator** must then (subject to any intervening **Outage**) take the **Outage** in accordance with that agreement. The provisions of this paragraph OC2.6.5(b) also apply to **Interconnector Owners** as if references to “**Generator**” were references to an “**Interconnector Owner**”. The provisions of this paragraph OC2.6.5(b) also apply to **Aggregators** as if references to “**Generator**” were references to an “**Aggregators**”.

OC2.6.5 (c) **24 Hour Recall**

In relation to an **Notified Unplanned Outage** notified to it pursuant to (a) above, the TSO may request the **Generator** to retain the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment** on **24 Hour Recall**, the period of which shall be the whole or part of the period identified by the **Generator** as the expected period of the **Outage**.  If the **Generator** agrees to such a request to retain the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment** on **24 Hour Recall**, the **Generator** shall send to the TSO a notice confirming the period within which the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment** will be on **24 Hour Recall**.  The TSO and the **Generator** may discuss amendments to the period suggested by the TSO, and any agreed amendment shall be reflected in the above notice.  The TSO shall acknowledge the notice within 2 hours, such acknowledgement confirming that the **Outage** will be a **24 Hour Recall Outage**. The provisions of this paragraph OC2.6.5(c) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.5(c) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

OC2.6.6 **Forced Outages**

OC2.6.6.1 In the event that a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment** suffers a **Forced Outage**, the relevant **Generator** shall, as soon as possible after the commencement of the **Outage** and in any event within 48 hours thereof, inform the TSO by written notice (in addition to the notifications required to be given by the **Generator** in such circumstances under SDC1.4.5, SDC2.4.2.10(b) and SDC2.4.2.15) of the **Generator's** best estimate of the date and time by which the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment** is likely to have been repaired and restored to its full level of **Availability**.  (It should be noted that a **Forced Outage** of an item of **Power Station Equipment** may result in a reduced level of **Availability** of the associated **CDGU** and/or Dispatchable WFPSs and/or Controllable WFPS.) If the **Generator** is unable for any reason to comply with this requirement, it shall not later than 48 hours after the commencement of the **Forced Outage**, provide to the TSO such information as is then known to the **Generator** regarding the date and time of return from such **Outage** and shall provide such updates thereafter as the TSO may reasonably require. The **Generator** shall then inform the TSO by written notice of the **Generator's** best estimate of the date and time by which the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment** is likely to have been repaired and restored to its full level of **Availability** as soon as the **Generator** is able. The provisions of this paragraph OC2.6.6.1 also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.6.1 also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

OC2.6.6.2 Pursuant to and subject to SDC1.4.3, a **Generator** shall use all reasonable endeavours to ensure that, following a **Forced Outage**, the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or item of **Power Station Equipment** (as the case may be) is repaired and restored to its full level of **Availability** as soon as possible and in accordance with **Prudent Operating Practice**. The provisions of this paragraph OC2.6.6.2 also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.6.6.2 also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

OC2.6.7 Release of **CDGUs**, Dispatchable WFPSs, Controllable WFPSs and **Power Station Equipment**

OC2.6.7.1 **Generators** may only undertake **Planned Outages** with the **TSO 's** agreement in accordance with **Outage** programmes produced pursuant to this OC2.

OC2.6.7.2 In real time operation **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), Dispatchable WFPSs, Controllable WFPSs (or Generating Unit(s) therein) and **Power Station Equipment** must not actually be withdrawn for a **Planned Outage** or a **Short Term Planned Maintenance Outage** without the TSO**'s** express formal permission for such release according to the procedures set out in OC2.6.7.3, which permission shall be given except as described in OC2.6.7.4.

OC2.6.7.3The TSO **'s** express formal permission shall specify (consistent with the details resulting from the application of the foregoing procedures of this OC2):

OC2.6.7.3 (a) the identity of the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPSs (or Generating Unit(s) therein) and/or **Power Station Equipment** and **MW** concerned (i.e. **MW** which will not be **Available** as a result of the **Outage** and that which will, notwithstanding the **Outage**, still be **Available** (if any));

OC2.6.7.3 (b) the duration of the **Outage**; and

OC2.6.7.3 (c) the **Start Date** and **Start Time**.

OC2.6.7.4 (a) Notwithstanding anything else contained in this OC2, the TSO shall be entitled, on the basis set out in (b) below, to determine whether to release a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or a Dispatchable WFPS and/or a Controllable WFPS (or Generating Unit(s) therein) or an item of **Power Station Equipment** for a **Planned Outage** or a **Short Term Planned Maintenance Outage**.

OC2.6.7.4 (b) Subject to (c) below the TSO may withhold its permission for the release of a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or a Dispatchable WFPS and/or a Controllable WFPS (or Generating Unit(s) therein) or any item of **Power Station Equipment** for a **Planned Outage** or a **Short Term Planned Maintenance Outage** where such **Outage** has previously been planned in accordance with this OC2 where, in the TSO **'s** reasonable opinion (were such **Outage** not to be deferred):

(i) the **Licence Standards** could not be met; or

(ii) there would be insufficient generating capacity to meet forecast **Demand** and the **Margin**;

and may require the **Generator** to continue to defer such **Outage** for so long as those circumstances exist.

OC2.6.7.4 (c) In the case of a **Generator** with **PPA CDGUs**, the provisions of GC13.3 shall be imported into (and, for the purposes of the TSO **Licence**, shall be regarded as forming part of) this OC2.6.7.4. Nothing in this OC2.6.7.4 shall limit any other power which the TSO has in thisOC2 to grant or withhold absolutely its permission for an **Outage** under this OC2.

OC2.6.7.5 The provisions of this OC2.6.7 also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this OC2.6.7 also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

OC2.6.8 Return to service and overruns

OC2.6.8.1 (a) In relation to a **Planned Outage**, not later than 7 days before the expiry of the **Flexible Planned Outage Period** or the **Inflexible Planned Outage Period** (as the case may be), the **Generator** must inform the TSO by notice in writing, in such form as the TSO may reasonably require, (a"**RTS Notice**") either that its **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPS and/or Controllable WFPS (or Generating Unit(s) therein) or **Power Station Equipment** is returning to service earlier than expected, or at the time and date expected, or later than expected and if, upon return, it is expected to be **Fully Available**, the **Generator** shall so state. Where a **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) is not expected to be **Fully Available** upon its return to service, the **Generator** shall state the **MW** level at which the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPS and/or Controllable WFPS (or Generating Unit(s) therein) is expected to be **Available**. In the case of a **CDGU** which is capable of firing both on coal and on oil, the **Availability** must be stated for each **Designated** **Fuel**.

OC2.6.8.1 (b) In the case of a return from a **Planned Outage** earlier than expected, the **RTS Notice** must be given as far as possible in advance of return but in any event not later than required under (a) above.

OC2.6.8.1 (c) In the case of a return from a **Planned Outage** later than expected, the **RTS Notice** must be given not later than required under (a) above and shall state the reason for the delay in the return of the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), the TSO and/or Controllable WFPS (or Generating Unit(s) therein) or **Power Station Equipment** to service and the **Generator's** best estimate of the date and time at which the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Controllable WFPS (or Generating Unit(s) therein) or **Power Station Equipment** will return to service.

OC2.6.8.1 (d) If, after giving a **RTS Notice**, the **Generator** becomes aware that any details notified to the TSO in such notice are or have become inaccurate, the **Generator** shall give a revised **RTS Notice**.

OC2.6.8.2 Without prejudice to the provisions of SDC1.4.3 (which, for the avoidance of doubt, are not applicable in respect of Controllable WFPSs), a **Generator** must use all reasonable endeavours to ensure that, in respect of each **Planned Outage** of the **Generator's** **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPSs (or Generating Unit(s) therein) and **Power Station Equipment**, the **Outage** as included in the **Final Outage Programme** (or as moved in accordance with this OC2) is followed.

OC2.6.8.3 Before returning from any **Outage** other than a **Planned Outage**, a **Generator** must informthe **TSO**, as far in advance as reasonably possible, by notice in writing in such form as the **TSO** may reasonably require, that its **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), and/or Dispatchable WFPSs and/or Controllable WFPS (or Generating Unit(s) therein) or **Power Station Equipment** is returning to service. The **Generator** must, in addition, give an **Availability Notice** in accordance with SDC1 on the day prior to the **Schedule Day** on which the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), or **Power Station Equipment** (other than Power Station Equipment used in the operation of a Controllable WFPS) is to return to service. The Generator must also give an updated Availability Notice amending or confirming the Availability Notice for the Controllable WFPS on the day prior to the day in the Schedule Week on which the Controllable WFPS (or Generating Unit(s) therein) or Power Station Equipment used in the operation of the Controllable WFPS is to return to service.

OC2.6.8.4 If at any time during an **Outage** (in the case of a **Planned Outage**, prior to giving a **RTS Notice**) the **Generator** becomes aware that its **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), or item of **Power Station Equipment** (other than Power Station Equipment used in the operation of a Controllable WFPS) will not (or is unlikely to) have been maintained, repaired or restored to be Available in accordance with SDC1.4.3 by the expiry of the period specified for the duration of the Outage in the Final Outage Programme or as otherwise notified in the case of Outages other than Planned Outages, the Generator shall notify the **TSO** immediately in writing stating the reason for the delay and the Generator's best estimate of the date and time by which the **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein), or item of Power Station Equipment (other than Power Station Equipment used in the operation of a Controllable WFPS) will actually have been maintained, repaired or restored to be Available in accordance with SDC1.4.3. If at any time during an Outage (in the case of a Planned Outage, prior to giving a RTS Notice) the Generator becomes aware that its Dispatchable WFPS or Controllable WFPS (or Generating Unit(s) therein) or item of Power Station Equipment used in the operation of the Dispatchable WFPS or the Controllable WFPSwill not (or is unlikely to) have been maintained, repaired or restored to be **Available** by the expiry of the period specified for the duration of the **Outage** in the **Final Outage Programme** or as otherwise notified in the case of **Outages** other than **Planned Outages**, the **Generator** shall notify the **TSO** immediately in writing stating the reason for the delay and the **Generator's** best estimate of the date and time by which the Dispatchable WFPS or the Controllable WFPS (or Generating Unit**(s)** therein) or item of **Power Station Equipment** used in the operation of the Dispatchable WFPS or the Controllable WFPSwill actually have been maintained, repaired or restored to be **Available.**

OC2.6.8.5The provisions of this OC2.6.8 also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this OC2.6.8.5 also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

OC2.7ASSESSMENT OF CAPACITY ADEQUACY

In assessing capacity Adequacy the **TSO** shall, in conjunction with the **Other TSO**, estimate **Demand** growth, formulate **Demand Forecasts** and consider **Outages** of **CDGUs** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein as provided in OC2), Dispatchable WFPSs, Controllable WFPSs , **Power Station Equipment**, **Interconnectors, Aggregated Generating Units and Demand Side Units.**

OC2.7.1 Capacity Margin for Year 1

If there is a deficit indicated in any week, the **TSO** and the **Other TSO** shall jointly issue a **System Capacity Shortfall Warning**.

OC2.7.2 Capacity Margin for Year 0

If there is a deficit indicated in any day, the **TSO** and the **Other TSO** shall jointly issue a **System Capacity Shortfall Warning**.

OC2.8 **OUTAGE** PLANNING PROCEDURES FOR **SYSTEM** **OUTAGES**

OC2.8.1 This Section 8 sets out the data exchanges and planning procedures required to enable the **TSO** to prepare a plan of:

(a) **Outages** on the **Transmission System**;

(b) **Outages** of circuits on the **Distribution System** which operate at 33kV;

(c) **Outages** on the **Distribution System** which may affect **CDGUs** (and/or in the case of a **CCGT Installation**, **CCGT Modules** as provided in OC2), **Dispatchable WFPSs**, **Controllable WFPSs, Aggregated Generating Units and Demand Side Units** connected to the **Distribution System**;

(d)  **Outages** on the **Distribution System** which may affect **Independent Generating Plant** with a **Registered Capacity** of 2 **MW** and greater; and

(e)  **Outages** on the **Distribution System** which may affect **Customers** with a **Demand** greater than 10 **MW** and which are connected to the **Distribution System**;

which shall be known as the "**System Outage Plan**".

OC2.8.2 Long Term **Operational Planning** - Planning for Years 2 and 3 ahead

The **TSO** shall develop the **System Outage Plan** for Years 2 and 3 taking due account of known requirements for construction and refurbishment works.  This contrasts with the **System Outage Plan** in respect of Years 0 and 1 ahead when the **TSO** will, in addition, take into account **Outages** required as a result of maintenance.  **Transmission System** **Outages** and **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein) and/or Dispatchable WFPS and/or Controllable WFPS (or Generating Unit(s) therein) and/or **Power Station Equipment Outages** shall, during Years 2 and 3 but not in Year 1 or later, be co-ordinated so that, in general, **CDGU** (or in the case of a **CCGT Installation**, **CCGT** **Module(s)** therein) and/or Dispatchable WFPS and/or Controllable WFPS (or Generating Unit(s) therein) and/or **Power Station Equipment** **Outages** shall take precedence over **Transmission System Outages** but subject always, in any particular case, to the **TSO's** discretion to determine otherwise on the basis of reasons relating to the proper operation of the **Transmission System** and the **Other TSO’s Transmission System**. The provisions of this paragraph OC2.8.2 also apply to **Interconnectors** as if references to a **Generator**’s units were references to “**Interconnectors**”. The provisions of this paragraph OC2.8.2 also apply to **Aggregators** as if references to a **Generator**’s units were references to “**Aggregated Generating Units**” or “**Demand Side Units**”.

OC2.8.3 In each calendar year:

(a) By the End of August

The **DNO** will provide the **TSO** in writing with known requirements for **Outages** on the **Distribution System** of the type set out in OC2.8.1 (b), (c), (d) and (e) which are related to construction or refurbishment works in Years 2 and 3 ahead, if any.

(b) By the End of September

The **TSO** will draw up a draft **System Outage** **Plan** covering the period Years 2 and 3 for the **TSO’s** internal use. The **TSO** will notify each **Generator** in writing where **Transmission System Outages** may operationally affect such **Generator**'s **CDGUs** (and/or in the case of a **CCGT Installation**, **CCGT Modules**, as provided under OC2), **Controllable WFPSs**, **Dispatchable WFPSs** including, in particular, proposed start dates and end dates of relevant **Transmission System** **Outages**.  The **TSO** will indicate to a **Generator** where a need may exist to use **Intertripping** or other measures including restrictions on the **Dispatch** of **CDGUs** and/or Dispatchable WFPS and/or Controllable WFPSs to allow the security of the **NI System** to be maintained within the **Licence Standards**.  The **TSO** will also inform each **Large** **Demand Customer** of the aspects of the plan which may affect it.  The provisions of this paragraph OC2.8.3(b) also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.8.3(b) also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

OC2.8.4 Medium Term **Operational Planning** - Planning for Year 1

OC2.8.4.1 The plan produced pursuant to OC2.8.2 will become the draft **System Outage** **Plan** for Year 1 when, by effluxion of time, Year 2 becomes Year 1. Each calendar year the **TSO** shall update the draft **System Outage Plan** and shall, in addition, take into account **Outages** required as a result of maintenance work.

In each calendar year:

OC2.8.4.2 (a) By the End of May

The **DNO** will provide the **TSO** in writing with known requirements for **Outages** on the **Distribution System** of the type set out in OC2.8.1 (b), (c), (d) and (e) which are related to construction, refurbishment or maintenance works in Year 1.

OC2.8.4.2 (b) By the End of June

The **TSO** will draw up the **System Outage** **Plan** and will inform each **Generator** in writing where **Transmission System Outages** may operationally affect in Year 1 such **Generator's CDGUs** (and/or in the case of a **CCGT Installation**, **CCGT Modules**, as provided under OC2), **Controllable WFPSs**, and **Dispatchable WFPSs** including, in particular, proposed start dates and end dates of relevant **Transmission System Outages.**

OC2.8.4.2 (c) By the end of July

Where a **Generator** objects to the proposed restrictions or impact notified to it under (b) above, equivalent provisions to those set out in OC2.6.2(d) will apply.

OC2.8.4.2 (d) Between the End of June and the end of September

The **TSO** will draw up a final **System Outage** **Plan** covering Year 1.

OC2.8.4.2 (e) By the End of September

(i)The **TSO** will publish the final **System Outage** **Plan** for Year 1.

(ii) The **TSO** will notify each **Generator** in writing where **Transmission System Outages** may operationally affect such **Generator's CDGUs** (and/or in the case of a **CCGT Installation**, **CCGT Modules**, as provided under OC2), **Controllable WFPSs**, and **Dispatchable WFPSs** including, in particular, proposed start dates and end dates of relevant **Transmission System Outages** including, in particular, proposed start dates and end dates of relevant **Transmission System Outages**.  The **TSO** will also indicate where a need exists to use **Intertripping**, emergency switching, emergency load management or other measures including restrictions on the **Dispatch** of **CDGUs** and/or Dispatchable WFPS and/or Controllable WFPSs to allow the security of the **NI System** to be maintained within the **Licence Standards**.  The **TSO** will also inform the **DNO** and each **Large** **Demand Customers** of the aspects of the plan which may affect it.

The provisions of this paragraph OC2.8.4 also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.8.4 also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

OC2.8.5 Short Term **Operational Planning** - Planning in Year 0 Down to the **Programming Phase**

The **System Outage** **Plan** for Year 1 issued under OC2.8.4.2(e) shall become the final plan for Year 0 when by effluxion of time Year 1 becomes Year 0.

OC2.8.5 **Programming Phase**

OC2.8.5 (a) By 10.00 hours on Wednesday of each week

The **DNO** shall provide the **TSO** in writing with known requirements for **Outages** on the **Distribution System** of the type set out in OC2.8.1 (b), (c), (d) and (e) which are related to construction, refurbishment or maintenance works in the following one week period beginning on the Friday.

(b) By 11.00 hours Each Thursday

(i)The **TSO** shall update the **System Outage** **Plan** for the following one week period beginning on the Friday.

(ii)The **TSO** will notify each **Generator** in writing where **Transmission System Outages** may operationally affect such **Generator's CDGUs** (and/or in the case of a **CCGT Installation**, **CCGT Modules**, as provided under OC2), **Controllable WFPSs**, and **Dispatchable WFPSs** including, in particular, proposed start dates and end dates of relevant **Transmission System Outages.** The **TSO** will also indicate where a need exists to use **Intertripping**, emergency switching, emergency load management or other measures including restrictions on the **Dispatch** of **CDGUs** and/or Dispatchable WFPS and/or Controllable WFPSs to allow the security of the **NI System** to be maintained within the **Licence Standards**. The **TSO** will also inform the **DNO** and each **Large** **Demand Customers** of the aspects of the plan which may affect it.

OC2.8.5 (c) During the **Programming Phase**

Each **Generator** and the **TSO** will inform each other immediately if there is any unavoidable requirement to depart from the **Outages** and actions determined and notified under paragraph OC2.8.5(b) above. In addition, the **TSO** shall notify each **Large** **Demand Customers** to whom it notified details of the updated **Transmission System Outage** plan pursuant to OC2.8.5(b) of any changes to such details.

The provisions of this paragraph OC2.8.5 also apply to **Interconnector Owners** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Interconnector Owner**” in respect of an “**Interconnector**”. The provisions of this paragraph OC2.8.5 also apply to **Aggregators** as if references to “**Generator**” and to a **Generator**’s units were references to an “**Aggregator**” in respect of an “**Aggregated Generating Unit**” or a “**Demand Side Unit**”.

**OPERATING CODE NO. 11**

**TESTING, MONITORING AND INVESTIGATION**

OC11.3 SCOPE

**OC11** applies to the **TSO** and to **Users** which in this OC11 means **Generators** (in respect of their **Black Start Stations**, all other **Generating Units** connected to the **Transmission System** and in respect of **CDGUs** and **Controllable WFPSs** connected to the **Distribution System**), **Generator Aggregators**, **Interconnector Owners**, **Demand Side Units** and **Large Demand Customers**.

**PART B – All User’s Equipment other than PPA CDGUs**

OC11.10 **MONITORING**

OC11.10.1Procedure for **Monitoring**

OC11.10.1.1 **Monitoring** of **User’s Equipment** is normally continuous or continuous for periods of time, and involves the analysis of the output of **Monitoring** equipment (as required or permitted under the CC and/or relevant **Connection Agreements** and/or **SSS Agreements** and/or the **MC**), **Generator Aggregator** System Operator Agreement or by such other methods as the **TSO** shall reasonably determine are appropriate in the circumstances. It does not require advance notification from the **TSO** to **Users**.

OC11.10.2 Compliance with **Dispatch Instructions**

OC11.10.2.1 The **TSO** will **Monitor** **CDGUs, Aggregated Generating Units**and **Interconnectors (**referred to in the followingparagraphs of this OC11.10 as **“Relevant Plant”)** in accordance with the following provisions of this OC11.10.2 when it wishes to determine whether theyare being operated in compliance with **Dispatch** **Instructions**.

OC11.10.2.5 If the average value of the **Dispatch Characteristic(s)** in any 5 minute period during the period of **Monitoring** falls outside the relevant **Tolerance Band** the **TSO** may by submitting a **Post Event Notice** to the **Generator**re‑register the value of **Availability** or the value of the relevant **Technical Parameter** corresponding to that **Dispatch Characteristic** to the most inferior value outside the **Tolerance Band** for any 5 minute period during the period of **Monitoring** (with effect from the **Trading Period** in which the **Monitoring Notice** was issued) and the **TSO** may also notify the **Generator** not later than 10 minutes before the end of the period of **Monitoring** that it will continue to **Monitor** the **Relevant Plant** for a further period not exceeding that shown in the relevant Table in the Appendix to this OC11 Part B in respect of the particular **Dispatch Characteristic** and with reference to the relevant or selected **Tolerance Band**.

OC11.10.3 **Demand Side Units**

A **Demand Side Unit** shall be deemed compliant with a **Dispatch Instruction** if:

1. the **Demand Side Unit MW Response** of the **Dispatch Instruction** is achieved in the **Demand Side Unit MW Response Time** and maintained until the subsequent **Dispatch Instruction** or until the **Maximum Down-Time** of the **Demand Side Unit** has elapsed; and
2. the **Demand Side Unit Performance Monitoring Percentage Error** is less than 5% for each full half-hour **Meter** period of the **Demand Side Unit MW Response** for 90% of the last ten **Dispatches** or 90% of the **Dispatches** in a three-hundred and sixty-five day period

or

the **Demand Side Unit Performance Monitoring Error** is less than 0.25 **MWh** for each full half-hour **Meter** period of the **Demand Side Unit MW Response** in 90% of the last ten **Dispatches** or 90% of the **Dispatches** in a three-hundred and sixty-five day period; and

1. the **Demand Side Unit Performance Monitoring Percentage Error** is less than 10% for each full half-hour **Meter** period of the **Demand Side Unit MW Response**

or

the **Demand Side Unit Performance Monitoring Error** is less than 0.5 **MWh** for each full half-hour **Meter** period of the **Demand Side Unit MW Response**; and

1. the **Demand Side Unit Performance Monitoring Percentage Error** is on average less than 5% for each full half-hour **Meter** period of the **Demand Side Unit MW Response**

or

the **Demand Side Unit Performance Monitoring Error** is on average less than 0.25 MWh for each full half-hour **Meter** period of the **Demand Side Unit MW Response**; and

1. the **Demand Side Unit SCADA Percentage Error** is less than 5% or the **Demand Side Unit SCADA Error** is less than 0.5 **MWh**.

OC11.10.3 **Operating Reserve** capability

OC11.10.3.1 **Monitoring**to determine whether a **Relevant Plant** is able to achieve its **Primary Operating Reserve, Secondary Operating Reserve** and/or **Tertiary Operating Reserve band 1 (**for the purposes of this OC11 Part B, **“Relevant Operating Reserve”)** capability will be undertaken by the **TSO** in accordance with the applicable **Agreed Testing and Monitoring Procedure.**

OC11.10.3.2If a **Relevant Plant** is found by the **TSO** to be non-compliant pursuant to OC11.10.4.1 the **TSO** may re-register the value of the **Generator’s** declared **Relevant** **Operating Reserve** in accordance with the provisions of the applicable **Agreed Testing and Monitoring Procedure**.

OC11.11  **TESTING**

OC11.11.1 Procedure for **Testing**

OC11.11.1.1 In circumstances where the **TSO** reasonably considers that, in relation to a **CDGU, Controllable WFPS, Demand Side Unit** or item of **User's Equipment**, a **User** might be failing to comply or might in the foreseeable future fail to comply with the relevant **Design and Operating Requirements** (or the requirements of the **SSS Agreement**, as the case may be), the **TSO** may, upon giving reasonable notice identifying the **Design and Operating Requirement** concerned, send representatives to the relevant **Power Station** or **User Site** in order to verify by **Testing** or inspection (in the case of **Testing** conducted by the **User**) whether in relation to the **CDGU, Controllable WFPS,Demand Side Unit** or item of **User's Equipment**, as the case may be, the **Design and Operating Requirement** (or **SSS** **Agreement** requirement, and the case may be) is being complied with.  The **Test** or inspection may involve the giving of specific **Dispatch** **Instructions** within the provisions of SDC2, including instructions in connection with **Black Starts** and **Dispatched Fuel Notices**.  The period of notice which is reasonable will depend upon all the circumstances, including the **Design and Operating Requirement** (or **SSS Agreement** requirement, as the case may be) in question.

OC11.11.1.2 A **Generator, Demand Side Unit Operator** or other **User**, as the case may be, must allow the **TSO** representatives access to all relevant parts of its **Power Station** or **User Site** for the purposes of this OC11.11.

OC11.11.1.3 In the case of a **Test** of **Relevant** **Operating Reserve** capability or any other **Test** that falls within the scope of an **Agreed Testing and Monitoring Procedure**, the procedure for conducting the **Test** and the criteria for passing the **Test** will be as set out in the applicable **Agreed Testing and Monitoring Procedure.**  If a **Test** falls outside the scope of the **Agreed Testing and Monitoring Procedures**, the procedure for the **Test**, and the criteria for passing the **Test** will, if not agreed between the **TSO** and the **Generator, Demand Side Unit Operator** or other **User**, be as determined by the **TSO** acting reasonably and as notified to the **Generator, Demand Side Unit Operator** or other **User**, as the case may be, at the time and the **Generator, Demand Side Unit Operator** or other **User**, as the case may be, will comply with all reasonable instructions of the **TSO** in carrying out the **Test**.

OC11.11.1.5 (a) In determining whether the **CDGU**, **Controllable WFPS, Demand Side Unit** or item of **User's Equipment**, as the case may be, has passed a **Test**, due regard will be given by the **TSO** to operating conditions on the **NI System** and (where applicable) the relevant **Tolerance Bands** will be applied to the relevant matters being **Tested** as set out in the Appendix to this OC11 Part B and the **Conversion Factors** and the **Additional Conversion Factors** shall also be applied where appropriate.

(b) If, within 48 hours after completion of the **Test**, the **User** notifies the **TSO** in writing that it disagrees that the results show that the **CDGU**, **Controllable WFPS, Demand Side Unit** or item of **User's Equipment** has failed the **Test**, then the question of whether the **Test** has been passed or failed shall:-

(i) in the case of a **Design and Operating Requirement** contained in the **Grid Code**, be decided in accordance with the relevant dispute resolution procedure set out in the **User's** relevant **Connection Agreement**, **Transmission** **Use of System Agreement** or **Grid Code Compliance Agreement**; or

(ii) in the case of a **Design and Operating Requirement** contained in the **User's** relevant **Connection Agreement**, **Transmission Use of System Agreement** or **Grid Code Compliance Agreement**, be decided in accordance with the relevant dispute resolution procedure set out in the **User's** relevant **Connection Agreement**, **Transmission** **Use of System Agreement** or **Grid Code Compliance Agreement**; or

(iii) in the case of a requirement contained in the **Users** relevant **SSS Agreement**, be decided in accordance with the relevant dispute resolution procedure set out in the **User's** relevant **SSS Agreement**,

and, in any such event, the effects of the **Test** shall be suspended until such time as it has been determined that the **CDGU, Demand Side Unit** or item of **User's Equipment** has failed the **Test**.

OC11.11.2 Consequences of failing a **Test**

OC11.11.2.1 If in relation to the **CDGU, Demand Side Unit** or item of **User's Equipment**, as the case may be, the **Generator or Demand Side Unit** fails the **Test** then:

(a) if the **Design and Operating Requirement** is one under the **Grid Code**, the **TSO** may, in the case of those **Design and Operating Requirements** where a parameter or other data item is registrable (that is, those other than CC parameters), re-register the value of the relevant **Design and Operating Requirement** to reflect the lower level of compliance shown by the **Test**;

(b) the **User** will, if the **Design and Operating Requirement** is one under a **Connection Agreement**, **Transmission** **Use of System Agreement** or **Grid Code Compliance Agreement** to which it is a party, be subject to such consequences (if any) as may arise under that agreement; and

(c) the **User** will, if it is a **SSS Agreement** requirement, be subject to such consequences as may arise under that agreement.

OC11.12 **INVESTIGATION**

OC11.12.1 The **TSO** may, if it reasonably considers that there may be an issue of non-compliance by the **User,** carry out an **Investigation** to acquire or verify information relevant to **User's Equipment** design, operation or connection requirements under the **Grid Code, Connection Agreements, Generator Aggregator System Operator Agreement** and **System Support Service Agreements** between **Users** and the **TSO**.

OC11.13 TESTING AT THE REQUEST OF A **GENERATOR** OR **USER**

OC11.13.1 A **Generator, Demand Side Unit Operator** or other **User**, as the case may be, shall, subject to OC11.13.2, be entitled, by notice in writing setting out the desired procedure (or, if the **TSO** acting reasonably so agrees, taking into account the nature of the test being requested, by oral request specifying the desired procedure, such oral request to be confirmed in writing as soon as reasonably practicable thereafter), to request the **TSO** to assist it (by **Dispatch**) in carrying out a test on any of its **CDGUs, Demand Side Unit** or **User's Equipment**, as the case may be, as such **Generator, Demand Side Unit Operator** or other **User**, acting reasonably in accordance with **Prudent Operating Practice**, may request. In the case of a test (other than an on-**Load** valve test) on a **CDGU or Demand Side Unit**, the procedure set out in the notice or specified in the oral request (as the case may be) shall include the level of **Availability** and the values for **Technical Parameters** which will be declared for the **CDGU, Demand Side Unit, Aggregated Generating Unit** or **Interconnector** for the period of the test in accordance with SDC1 and shall also include details of the **Dispatch** **Instructions** which the **Generator** or **Demand Side Unit Operator** wishes the **TSO** to issue to it for the purposes of the test which may be outside the **Availability** and **Technical Parameters** to be so declared.

OC11.13.3 (a) If the **TSO** refuses to conduct the test, either at all or in accordance with the procedure or at the time requested, the **TSO** and the **Generator, Demand Side Unit Operator** or other **User**, as the case may be, may discuss an alternative form of test or procedure for conducting the test or timing of the test to see whether agreement can be reached.

(b) If the **TSO** agrees to the test taking place, to the procedure for conducting the test and to the time of the test, either in response to the original request or following the discussion referred to in (a) above, it will notify the **Generator, Demand Side Unit Operator** or other **User**, as the case may be, accordingly.

OC11.13.4 (a)The **TSO** may then, in accordance with the agreed (or otherwise settled) procedure and timing and if agreed by the **User**, send representatives to the **Power Station** or **User Site**, as the case may be, in order to witness the test.

(b) The **Generator, Demand Side Unit Operator** or other **User**, as the case may be, must, if agreed under (a) above, allow the **TSO** witnesses access to all relevant parts of its **Power Station** or **User Site** in order to witness such a test.

(c)The **TSO** shall take all reasonable steps to ensure that any representatives that it sends to the **Power Station** or **User Site** pursuant to (a) above comply at all times with all relevant safety requirements of the **Generator, Demand Side Unit Operator** or other **User** (as the case may be) of which they are made aware and with all reasonable directions of the **Generator** or **Demand Side Unit Operator** and (but subject to (b) above) any reasonable restrictions on access whilst at the **Power Station** or **User Site** in question.

**SCHEDULING AND DISPATCH CODE NO.1**

**UNIT SCHEDULING**

SDC1.3SCOPE

SDC1.3.1SDC1 applies to the **TSO** and to the following **Users**:

(a) **Generators** with regard to their:

**CDGUs**; and

**Controllable WFPSs**.

(b) **Pumped Storage Generators** with regard to their **Pumped Storage Plant Demand**;

(c) **Interconnector Owners** with regard to their **Interconnectors**;

(d) In respect of the submission of **Commercial Offer Data** under SDC1.4.4.5 only, **Interconnector Users** in respect of their **Interconnector Units**;

(e) **Demand Side Unit Operators** in relation to their **Demand Side Units**; and

(f) **Generator Aggregators** in respect of their **Aggregated** **Generating Units**.

Each of which (other than the **TSO**) is a “**User**” under this SDC1.

SDC1.4.2 **Additional Grid Code Availability Notice**

The following items are required to be submitted by each **User** by no later than the EA1 **Gate Window Closure** each day,with the exceptionof **Aggregators** and **Demand Side Unit Operators**, direct to the **TSO**, regardless of whether these have to be submitted under the **TSC**. The requirements in SDC1.4.1 in relation to data apply to this SDC1.4.2 as if repeated here.

SDC1.4.3.4 **Availability of Demand Side Units**

Each **Demand Side Unit Operator**shall, subject to the exceptions in SDC1.4.3.5, use reasonable endeavours to ensure that it does not at any time declare the **Demand Side Unit MW Availability** and the **Demand Side Unit** characteristics of its **Demand Side Unit** at levels or values different from those that the **Demand Side Unit** could achieve at the relevant time. The **TSO** can reject declarations to the extent that they do not meet these requirements.

SDC1.4.3.5 SDC1.4.3.4 shall not apply to the extent:

(a) it would require the **Demand Side Unit Operator** to declare levels or values better than **Demand Side Unit MW Capacity** and **Technical Parameters** as submitted under the Planning Codein respect of a **Demand Side Unit**;

(b) necessary during periods of  **Planned Outage** or **Planned Maintenance Outage** or otherwise with the consent of the **TSO**;

(c) necessary while repairing or maintaining the **Demand Side Unit** or equipment necessary to the operation of the **Demand Side Unit** where such repair or maintenance cannot reasonably, in accordance with **Prudent Operating Practice,** be deferred to a period of  **Planned Outage** or **Planned Maintenance Outage*.***

(d) necessary to avoid an imminent risk of injury to persons or material damage to property (including the **Demand Side Unit**);

(e) it is not lawful for the **Demand Side Unit Operator** to change its **Demand Side Unit MW Response** or to operate its **Demand Side Unit**.

SDC1.4.3.6 Changes in **Availability**:

(a) Increasing: If a **Generator**, a **Generator Aggregator** or a **Demand Side Unit Operator** in respect of a **CDGU**,an **Aggregated Generating Unit,** a **Demand Side Unit** or **Pumped Storage Plant** in relation to **Demand**, issues an **Availability Notice** or a **Re-declaration** increasing (from zero or otherwise) the level of **Availability** or **Demand Side Unit MW Availability** from a specified time, such notice shall be construed as meaning that:

(i) in the case of a **CDGU** and/or **Aggregated Generating Unit**, the **CDGU** and/or **Aggregated Generating Unit** is capable of being synchronised to the **Transmission System** or **Distribution System** at that specified time or increasing its **MW Output** at that specified time as the case may be;

(ii) in the case of a **CDGU** which is an **Open Cycle Gas Turbine**, the **CDGU** is capable of being started at that specified time; or

(iii) in the case of a **Demand Side Unit**, the **Demand Side Unit** is capable of delivering a greater **Demand Side Unit MW Response** at that specified time.

(b) **Controllable WFPS:** If a **Generator** or, where relevant a **Generator Aggregator**, in respect of a **Controllable WFPS**, issues an **Availability Notice** or a **Re-declaration** increasing (from zero or otherwise) or decreasing the level of **Availability** from a specified time, such notice shall be effective from the **Trading Period** following the specified time.

SDC1.4.3.7 Decreasing: When a **CDGU** and/or **Controllable WFPS** is **Synchronised** to the **System** the **Generator** may have occasion to issue an **Availability Notice** or a **Re-declaration** decreasing the level of **Availability** of the **CDGU** and/or **Controllable WFPS** from a specified time. Such notice shall be construed as meaning that the **CDGU** and/or **Controllable WFPS** is capable of maintaining **Load** at the level of the prevailing **Availability** until the time specified in the notice. Thereafter, the **CDGU** and/or **Controllable WFPS** shall be capable of maintaining **Load** to the level which would have been achieved if a **Dispatch** **Instruction** had been given to reduce the **Load**. This would have occurred with effect from the specified time, at the maximum **De-Loading** **Rate** and/or **Ramp-Down Rate** declared for the **CDGU** and/or **Controllable WFPS** as a **Technical Parameter** at such time down to the level of **Availability** specified in the new **Availability Notice** or a **Re-declaration**. When a **Demand Side Unit** is providing a **Demand Side Unit MW Response** the **Demand Side Unit** may have occasion to issue an **Availability Notice** or a **Re-declaration** decreasing the level of **Demand Side Unit MW Availability** of the **Demand Side Unit** from a specified time. Such notice shall be construed as meaning that the **Demand Side Unit** is capable of maintaining **Demand Side Unit MW Response** at the level of the prevailing **Demand Side Unit MW Availability** until the time specified in the notice. Thereafter, the **Demand Side Unit** shall be capable of maintaining **Demand Side Unit MW Response** to the level which would have been achieved if a **Dispatch Instruction** had been given to reduce the **Demand Side Unit MW Response**. This would have occurred with effect from the specified time, at the **Maximum Ramp Down Rate** declared for the **Demand Side Unit** as a **Technical Parameter** at such time down to the level of **Demand Side Unit MW Availability** specified in the new **Availability Notice** or a **Re-declaration**.

SDC1.4.4.2 **Additional Grid Code Characteristics Notice**

The following items are required to be submitted by each **User** direct to the **TSO**:

(a) Individual **CCGT Module** data equivalent to the data required for a **CCGT Installation**. It shall also show any revisions to the **Technical Parameters** for each of the **CCGT Modules** within it.

(b) Different Fuels: In the case where a **CDGU** is capable of firing on different fuels, then the **Generator** shall submit an **Additional Grid Code Characteristics Notice** in respect of any additional fuel for the **CDGU**, each containing the information set out in SDC1.4.4.1 above for each fuel and each marked clearly to indicate to which fuel it applies.

(c) [Not used]

(d) In the case of **Interconnector Owners**, **Interconnector** data, including but not limited to the **Availability** of **Interconnector** **Filters**.

(e) In relation to each **Demand Side Unit**, the **Demand Side Unit Notice Time** and the **Demand Side Unit MW Response Time**.

(f) Where there is a **System Support Services** **Agreement** in place, the **System Support Services** which are **Available**.

(g) The parameters listed in Appendix A Part 2 of SDC1.

(h)[Not used]

(i)In the case of Kilroot **Power Station**, Ballylumford **Power Station** and Coolkeeragh **Power Station**, which configuration referred to in PC.A3.3.12 the **Power Station** is operating at for each **Trading Period**.

Data submitted under SDC1.4.4.2 shall, in respect of two shifting limitations, **Governor Droop**, reserve capability and MVAr capability, be submitted to the **TSO** in such form as the **TSO** may reasonably notify to each User or in the form published on the **TSO** website from time to time.

A **User** shall notify the **TSO** as soon as it becomes aware, acting in accordance with **Prudent Operating Practice**, that any of the data submitted under SDC1.4.4.2 changes.

Any changes to the MVAr capability shall be expressed as the maximum MVAr capability, for both leading and lagging MVAr, at the **Registered Capacity**.

SDC1.4.4.5 **Commercial Offer Data**

(a) Each:

- **Generator**;

**- Pumped Storage Generator**;

**- Interconnector User**;

**- Demand Side Unit Operator**; and

**- Generator Aggregator,**

shall in respect of:

- each of its **CDGUs**;

- each of its **Pumped Storage Plant Demand**;

- each of its **Interconnector Units**;

- each of its **Demand Side Units**; and

- its **Aggregated** **Generating Units**,

submit to the **TSO**, either directly or by means of an **Intermediary** on its behalf, **Commercial Offer Data** by the **Gate Window Closures** for the corresponding **Trading Windows** in accordance with the **TSC.** If no new **Commercial Offer Data** is submitted, the last accepted data will be used.

(b) Each **Generator** shall in respect of each of its **Energy Limited Generating Units** submit an **Energy Limit** as well as the **Commercial Offer Data** by **Gate Window Closure** for the corresponding **Trading Window**.

(c) Each **Pumped Storage Plant** will, with respect to its **Pumped Storage Plant Demand**, submit its **Target Reservoir Level** by **Gate Closure** for the following **Trading Day**. If no new data is submitted, the last accepted data will be used.

The **TSO** may require, by notice to the relevant **User**, the data referred to at SDC1.4.4.5 (a) to (c) to be submitted to it directly under the **Grid Code.** All data items submitted under this SDC1.4.4.5 are to be at levels of **MW Output** at the **Connection Point**.

SDC1.4.8.7 (b) The provisions of SDC1.4.8.7(a) shall apply to **Demand Side Units** with the exception that reference to relevant effective time shall be read as a reference to **Demand Side Unit Notice Time**.

**SDC1 – APPENDIX A**

**Part 1. Technical Parameters**

| **Technical Parameter** | **CDGU** | | | | **Control WFPS** | **DSU** | | **Agg. Gen** |  | **Pump Storage Demand** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Thermal** | **Hydr/ En Ltd** | **Disp. WFPS** | **Pump S Gen** | **-** | **Individual Demand Site** | **Aggregated Demand Sites** |  |  | **-** |
| **Block Load Cold** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Block Load Hot** | ✓ |  |  |  |  |  |  |  |  |  |
| **Block Load Warm** | ✓ |  |  |  |  |  |  |  |  |  |
| **Demand Side Unit Notice** |  |  |  |  |  | ✓ | ✓ |  |  |  |
| **Demand Side Unit MW Availability** |  |  |  |  |  | ✓ | ✓ |  |  |  |
| **Demand Side Unit MW Response Time** |  |  |  |  |  | ✓ | ✓ |  |  |  |
| **Deload Break Point** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **De-Loading Rate 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **De-Loading Rate 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Up 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Up 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Up 3** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Down 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Down 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Down 3** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Up Trigger Point 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Up Trigger Point 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Up Trigger Point 3** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Down Trigger Point 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Down Trigger Point 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Dwell Time Down Trigger Point 3** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **End Point of Start Up Period** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Energy Limit** |  | ✓ |  |  |  |  |  |  |  |  |
| **Energy Limit Factor** |  | ✓ |  |  |  |  |  |  |  |  |
| **Energy Limit Start** |  | ✓ |  |  |  |  |  |  |  |  |
| **Energy Limit Stop** |  | ✓ |  |  |  |  |  |  |  |  |
| **Forecast Minimum Output Profile** |  |  |  | ✓ |  |  |  |  |  | ✓ |
| **Forecast Minimum Generation Profile** | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |  |
| **Load Up Break Point Cold (1)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Load Up Break Point Cold (2)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Load Up Break Point Hot (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Load Up Break Point Hot (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Load Up Break Point Warm (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Load Up Break Point Warm (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Loading Rate Cold (1)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Loading Rate Cold (2)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Loading Rate Cold (3)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Loading Rate Hot (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Loading Rate Hot (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Loading Rate Hot (3)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Loading Rate Warm (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Loading Rate Warm (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Loading Rate Warm (3)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Max Ramp Down Rate (shall be a number greater than zero)** |  |  |  |  |  | ✓ | ✓ |  |  |  |
| **Max Ramp Up Rate (shall be a number greater than zero)** |  |  |  |  |  | ✓ | ✓ |  |  |  |
| **Maximum Down Time** |  |  |  |  |  | ✓ | ✓ |  |  |  |
| **Maximum Generation / Registered Capacity** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Maximum On Time** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Maximum Storage Capacity** |  |  |  | ✓ |  |  |  |  |  |  |
| **Minimum Down Time** |  |  |  |  |  | ✓ | ✓ |  |  |  |
| **Minimum Generation** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Minimum off time** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |
| **Minimum on time** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Minimum Storage Capacity** |  |  |  | ✓ |  |  |  |  |  | ✓✓ |
| **(Other relevant technical parameters)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Pumping capacity** |  |  |  | ✓ |  |  |  |  |  | ✓ |
| **Ramp Down Break Point 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Break Point 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Break Point 3** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Break Point 4** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Rate 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Rate 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Rate 3** |  | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Rate 4** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Down Rate 5** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Break Point 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Break Point 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Break Point 3** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Break Point 4** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Rate 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Rate 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Rate 3** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Rate 4** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Ramp Up Rate 5** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |  |
| **Short Term Maximisation Capability** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Soak Time Cold (1)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Soak Time Cold (2)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Soak Time Hot (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Soak Time Hot (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Soak Time Trigger Point Cold (1)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Soak Time Trigger Point Cold (2)** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Soak Time Trigger Point Hot (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Soak Time Trigger Point Hot (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Soak Time Trigger Point Warm (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Soak Time Trigger Point Warm (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Soak Time Warm (1)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Soak Time Warm (2)** | ✓ |  |  |  |  |  |  |  |  |  |
| **Synchronous Start-Up Time Cold** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Synchronous Start-Up Time Hot** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Synchronous Start-Up Time Warm** | ✓ |  |  |  |  |  |  |  |  |  |
| **Target Reservoir Level Percentage** |  |  |  | ✓ |  |  |  |  |  | ✓ |
| **Start of Restricted Range 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **End of Restricted Range 1** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **Start of Restricted Range 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |
| **End of Restricted Range 2** | ✓ | ✓ | ✓ | ✓ | ✓ |  |  |  |  |  |

**SCHEDULING AND DISPATCH CODE NO. 2**

**CONTROL SCHEDULING AND DISPATCH**

SDC2.1.2SDC2sets out the procedure for the **TSO** to issue **Dispatch Instructions** to:-

(a) **Generators** in respect of their **CDGUs** (which for the avoidance of doubt comprise, **Generating Units** subject to **Central Dispatch**, **CCGT Installations**, **Hydro Units**, **Pumped Storage Generation** (but not **Pumped Storage Demand**) and **Dispatchable WFPSs**);

(b) **Pumped Storage Generators** in respect of their **Pumped Storage Plant Demand**;

(c) **Interconnector Owners** in respect of their **Interconnectors**;

(d) **Demand Side Unit Operators** in respect of their **Demand Side Units**; and

(e) **Generator Aggregators** in respect of their **Aggregated Generating Units**.

**Controllable WFPSs** are not currently subject to **Dispatch Instructions.**

SDC2.3 SCOPE

SDC2.3.1SDC2 applies to the **TSO**, and:-

(a) **Generators** with regard to their **CDGUs**;

(b) **Pumped Storage Generators** with regard to their **Pumped Storage Plant Demand**;

(c) **Interconnector Owners** with regard to their **Interconnectors**;

(d) **Demand Side Unit Operators** in relation to their **Demand Side Units**; and

(e) **Generator Aggregators** in respect of their **Aggregated** **Generating Units**.

Each of which (other than the **TSO**) is a “**User**” under this SDC2.

SDC2.4.1.2 Additional factors which the **TSO** will also take into account are:

(a) those **Generators** or **Demand Side Units Operators** who have not complied with **Dispatch Instructions** or **Special Actions**;

(b) real time variation requests; and

(c) the need to **Dispatch CDGUs**, **Aggregated Generating Units, Demand Side Units**, **Interconnector** transfers, and **Pumped Storage Plant Demand** for **Monitoring, Testing** or **Investigation** purposes (and/or for other trading purposes whether at the request of a **User**, for **Commissioning** or **Acceptance**, **System Tests** or otherwise).

SDC2.4.2.2 Issue of **Dispatch Instructions**

The **TSO** will issue **Dispatch** **Instructions** direct to:

(a) the **Generator** for the **Dispatch** of each of its **CDGUs**.

(b) the **Generator Aggregator** for the **Dispatch** of its **Aggregated** **Generating Units**.

(c) the **Demand Side Unit Operator** and the **Pumped Storage Demand User** in respect of each of their **Demand Side Units** and **Pumped Storage Plant Demand** respectively.

(d) the **Interconnector Owner** for the **Dispatch** of the **Interconnector** transfers.

(e)The **TSO** may issue **Dispatch** **Instructions** for any **CDGU**, **Demand Side Unit**, **Interconnector** transfers, **Pumped Storage Plant Demand** and/or **Aggregated** **Generating Units** which has been declared **Available** in an **Availability Notice** even if that **CDGU**, **Demand Side Unit**, **Interconnector** transfers, **Pumped Storage Plant Demand** and/or **Aggregated** **Generating Units** was not included in an **Indicative Operations Schedule**. 

SDC2.4.2.13 (a) Subject to the exception set out below in this SDC2.4.2.13, **Generators** will only **Synchronise** or **de-Synchronise** **CDGUs** to the **Dispatch** **Instructions** of the **TSO** or unless it occurs automatically as a result of **Special Protection Schemes** or **Low Frequency Relay** operations. Subject to the exception set out below in this SDC2.4.2.13, **Demand Side Unit Operators** will only reduce or increase their **Demand Side Unit MW Response** to the **Dispatch** **Instructions** of the **TSO** or unless it occurs automatically as a result of **Special Protection Schemes** or **Low Frequency Relay** operations.

(b) **De-Synchronisation** may otherwise only take place without the **TSO's** prior agreement if it is to avoid, in the **Generator's** reasonable opinion, an imminent risk of injury to persons or material damage to property (including the **CDGU**). **Demand Side Units**, who can not maintain the provision of any **Demand Side Unit MW Response*,*** may otherwise only take place without the **TSO's** prior agreement if it is to avoid, in the **Demand Side Unit Operator's** reasonable opinion, an imminent risk of injury to persons or material damage to property (including the **Demand Side Unit**).

(c) If one of these exceptions occur, then the **TSO** must be informed that it has taken place as soon as possible.

SDC2.A.12 **Dispatching** a **Demand Side Unit** to a **Demand Side Unit MW Response**

SDC2.A.12.1 For **Demand Side Units**, the **Dispatch Instruction** issue time will always have due regard for the **Demand Side Unit Notice Time** declared to the **TSO** by the **Demand Side Unit Operator** as a **Technical Parameter** or as part of **Additional Grid Code Characteristics Notice** data.

SDC2.A.12.2 If the time of the **Dispatch Instruction** is 1400 hours, the **Demand Side Unit** is XX1, **the Demand Side Unit Notice Time** is 10 minutes and the **Demand Side Unit MW Response** to be achieved is 20 **MW**, the relevant part of the instruction would be for example:

“Time 1400 hours. Unit XX1 to 20 **MW**, start at 1410 hours”

**DATA REGISTRATION CODE**

DRC3 SCOPE

The **Users** to which the DRC applies are:-

(a) **Generators**;

(b) **Pumped Storage Generators** in respect of **Pumped Storage Plant Demand**;

(c) **Interconnector Users**;

(d) **Interconnector Owners**;

(e) **Demand Side Unit Operators**;

(f) **Generator Aggregators;**

(g) **Suppliers**; and

(h) **Large Demand Customers**.

DRC6.2 The **Schedules** applicable to the following categories of **User** are as follows:

**Generators** with **Generating Plant**: Sched 1,2,3,5,7 & 8

**Generators** with **Independent**

**Generating Plant**: Sched 1,3,4,5,7 & 8

**Generators** with **Controllable WFPSs**

or **Dispatchable WFPSs**: Sched 1, 2, 3, 5, 7 & 8

All **Users** connected directly

to the **NI System**: Sched 5,7 & 8

All **Users** connected directly

to the **NI System** with **Demand**

(including **Generators** with

respect to **Demand** at directly

connected **Power Stations** and

**Demand Side Unit Operators**

in respect of **Demand Side Units**): Sched 2,5,6,7 & 8

**Suppliers:** Sched 4 & 7

**Interconnector Owners:** Sched 2 & 3

**Interconnector Users:** Sched 2 (Para 6 only)

**SCHEDULE 2**

**DATA REGISTRATION CODE**

**GENERATION PLANNING PARAMETERS, RESPONSE CAPABILITY DATA AND SDC1 DATA**

Part 1 of this schedule contains the **CDGU and Controllable WFPS** or **Dispatchable WFPSs Generation Planning Parameters** required by the **TSO** to facilitate studies in **Operational Planning** timescales. It also contains the response capability data for **CDGUs.**

Part 2 of this schedule contains the data required with respect to **CDGUs**, **Pumped Storage Plant Demand, Interconnectors**, **Interconnector Units**, **Demand Side Units**, **Aggregated Generating Units** and/or **Controllable WFPS** to be supplied by **Users** by **Gate Closure** pursuant to SDC1. Many of these parameters are the same as those required in Part 1, but the data supplied under Part 1 will not be used for real time operation.

**Power Station**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part 1 - **Generation Planning Parameters**

| DATA DESCRIPTION | UNITS | DATA  CAT. | **GENERATING UNIT** OR **POWER STATION** DATA | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | G1 | G2 | G3 | | G4 | G5 | G6 | G7 | STN |
| Generation Planning Parameters for **CDGUs** |  |  |  |  |  | |  |  |  |  |  |
| The minimum notice required to **Synchronise** a **Generating Unit** from **De-synchronisation** | Mins | OC2 |  |  |  | |  |  |  |  | - |
| The minimum time between **Synchronising** different **Generating Units** in a **Power Station** | Mins | OC2 |  |  |  | |  |  |  |  |  |
| The minimum block **Load** requirements on **Synchronising** |  | OC2 |  |  |  | |  |  |  |  |  |
| Maximum **Generating Unit Loading** rates from **Synchronising** for the following conditions:- |  |  |  |  |  | |  |  |  |  |  |
| hot | **MW/**  min | OC2 |  |  |  | |  |  |  |  | - |
| Warm | **MW**/ min | OC2 |  |  |  | |  |  |  |  | - |
| cold | **MW**/ min | OC2 |  |  |  | |  |  |  |  | - |
| Minimum time off **Load** |  | OC2 |  |  |  | |  |  |  |  |  |
| Maximum **Generating Unit Deloading** rates for the following conditions:- |  |  |  |  |  | |  |  |  |  |  |
| Hot | **MW**/ min | OC2 |  |  |  | |  |  |  |  | - |
| warm | **MW**/ min | OC2 |  |  |  | |  |  |  |  | - |
| cold | **MW**/ min | OC2 |  |  |  | |  |  |  |  | - |
| Maximum allowable starts per year:- |  |  |  |  |  | |  |  |  |  |  |
| hot |  | OC2 |  |  |  | |  |  |  |  | - |
| warm |  | OC2 |  |  |  | |  |  |  |  | - |
| cold |  | OC2 |  |  |  | |  |  |  |  |  |
| **Generation Planning Parameters** for **Controllable WFPSs** or **Dispatchable WFPSs** |  |  |  |  |  |  | |  |  |  |  |
| The minimum time to connect/reconnect the **Controllable WFPS** or **Dispatchable WFPS** (or part thereof) to the **NI System** following a **Dispatch** instruction |  | OC2 |  |  |  |  | |  |  |  |  |
| The minimum time to connect/reconnect the **Controllable WFPS** or **Dispatchable WFPS** (or part thereof) to the **NI System** automatically following a trip of the **Controllable WFPS** or **Dispatchable WFPS** (or part thereof) that does not cause damage to the **Controllable WFPS** or **Dispatchable WFPS** (or part thereof) |  | OC2 |  |  |  |  | |  |  |  |  |
| The maximum rate at which Load can be increased following connection of the **Controllable WFPS** or **Dispatchable WFPS** (or part thereof) to the **NI System** |  | OC2 |  |  |  |  | |  |  |  |  |
| The minimum fault level or voltage at the **Connection Point** below which the **Controllable WFPS** or **Dispatchable WFPS** cannot be connected |  | OC2 |  |  |  |  | |  |  |  |  |
| **Operating Reserve to Frequency change**  **Operating Reserve** to **Frequency** change to be given in a tabular form, describing **Primary Operating Reserve, Secondary Operating Reserve, Tertiary Operating Reserve band 1**, **Tertiary Operating Reserve band 2** at different levels of **Load**, ranging from **Minimum Generation**  to **Registered Capacity**  **Governor Droop** Characteristics  **Governor Droop**  Unit Control Options  Maximum Droop  Normal Droop  Minimum Droop | Table  %  %  %  % | OC3  OC3  OC3  OC3  OC3 |  |  |  |  | |  |  |  | - |

Part 2: **Availability**, **Technical Parameters** Data and other data required under SDC1

The following information is required daily by not later than **Gate Closure** to cover the next following **Trading Day** in relation to each **CDGU**, **Pumped Storage Plant Demand, Interconnector**, **Interconnector Units** (only in relation to paragraph 6 below), **Demand Side Unit**, **Aggregated Generating Unit** and/or **Controllable WFPS**. In so far as the **Availability** data is not so submitted, the data to have been submitted in respect of the last **Trading Period** of the current **Trading Day** will be deemed to have been resubmitted. Any further revisions to this data are required to be notified to the **TSO** when they become known.

1 **Availability**

Each **User** must notify the **TSO** by means of an **Availability Notice** of the **Availability** of each of its **CDGUs** (and in the case of a **CCGT Installation**, the **CCGT Modules** within it), **Pumped Storage Plant Demand, Interconnectors**, **Demand Side Units**, **Aggregated Generating Units** and/or **Controllable WFPS**.

The **Availability Notice** shall state the **Availability** of the relevant **CDGU** for each **Trading Period** in the following **Trading Day** (subject to revision under SDC1.4.5.1 (a)).

In addition, **Users** other than **Aggregators** and **Demand Side Unit Operators** must submit an **Additional Grid Code Availability Notice** under SDC1.4.2 by no later than **Gate Closure** each day. The information contained in an **Additional Grid Code Availability Notice** broadly relates to a **CDGU**’s different **Availabilities** depending on which fuel a **CDGU** is firing on (for a **CDGU** that is capable of firing on different fuels), the **Availability** of each **CCGT Module** within a **CCGT Installation** and to the various long-term constraints (such as fuel and emissions constraints) which can affect the **Availability** of a **CDGU**.

6. **Commercial Offer Data**

Each **Generator**, **Pumped Storage Generator** (in respect of **Pumped Storage Plant Demand**), **Interconnector User** (in respect of an **Interconnector Unit**), **Demand Side Unit Operator** and **Generator Aggregator** shall submit **Commercial Offer Data** to the **TSO** (either directly or by means of an **Intermediary**) by **Gate Closure** for the following **Trading Day** in accordance with the **TSC**. Specific requirements for **Energy Limited Generating Units** and **Pumped Storage Plants** are listed in SDC1.4.4.5.

**SCHEDULE 8**

**DATA REGISTRATION CODE**

**DATA SUPPLIED BY THE TSO TO USERS**

| **GRID CODE PROVISION** | DATA DESCRIPTION |
| --- | --- |
|  | **Site Responsibility Schedules/Ownership Diagrams** |
| CC9.1.3/CC9.1.4 | The **TSO** shall, in respect of each connection to the **NI System** for which a **Connection Agreement** is required and those covered by Regulation 26 and Parts 1 and 2 of Schedule 3 of the Electricity Supply Regulations (NI) 1991, prepare:-  (i) a **Site Responsibility Schedule**; and  (ii) an **Ownership Diagram**.  **Operational Planning** |
| OC2.6.2(c)(i) | The **TSO** shall, by the end of September in each calendar year, provide each **Generator** in writing with a **Provisional Outage Programme** showing the **CDGUs**, **Controllable WFPSs** or **Dispatchable WFPSs** (or **Generating Unit(s)** therein) and/or **Power Station Equipment** it may potentially withdraw from service during each week of **Years 2** and **3** for a **Planned Outage.** |
| OC2.6.3(c)(i)/  OC2.6.3(f)(i) | The **TSO** shall, by the end of June in **Year 1,** provide each **Generator** in writing with a draft **Final Outage Programme** showing the **CDGUs**, **Controllable WFPSs** or **Dispatchable WFPSs** (or **Generating Unit(s)** therein) and/or **Power Station Equipment** it may potentially withdraw from service during each week of Year 1 for a **Planned Outage** and shall, by the end of September, notify any further changes by the issue of a **Final Outage Programme.** |
| OC2.6.7.3 | The **TSO’s** express formal permission must be obtained by a **Generator** prior to withdrawing a **CDGU**,  **Controllable WFPSs** or **Dispatchable WFPSs** (or **Generating Unit(s)** therein) or item of **Power Station Equipment** for a **Planned Outage,** which permission shall specify:-  (i) the identity of the **CDGU**, **Controllable WFPSs** or **Dispatchable WFPSs** (or **Generating Unit(s)** therein) and/or **Power Station Equipment** and **MW** concerned;  (ii) the duration of the **Outage**; and  (iii) the **Start Date** and **Start Time.** |
| 0C2.7.1 | If there is a deficit indicated in any week, the **TSO** and the **Other** **TSO** shall jointly issue a System Capacity Shortfall Warning. |
| OC2.7.2 | If there is a deficit indicated in any day, the **TSO** and the **Other** **TSO** shall jointly issue a System Capacity Shortfall Warning. |
| OC2.8.2 | The **TSO** will, by the end of September in each calendar year, notify each **Generator** in writing of those aspects of the draft **NI System Outage** plan which may affect such **Generator** operationally, including proposed start dates and end dates of relevant **NI System Outages**. The **TSO** will also inform each  **Large Demand Customer** with a **Demand** greater than 10MW of the aspects of the plan which may affect it. |
| OC2.8.5(a)(ii) | The **TSO** will, by 11.00 hours each Thursday during the **Programming Phase,** notify each **Generator** in writing of those aspects of the **NI System Outage** plan which may affect it operationally, including proposed start dates and end dates of relevant **NI System Outages**. The **TSO** will also inform each **Large Demand Customer** with a **Demand** greater than 10MW of the aspects of the plan which may affect it. |
|  | **Indicative Operations Schedule** |
| SDC1.4.8.9 | The **TSO** will issue the **Indicative Operation Schedule** each day to each **Generator** with **CDGUs,** **Controllable WFPSs** or **Dispatchable WFPSs**, each **Pumped Storage Generator** with respect to their **Pumped Storage Plant Demand**, each **Interconnector Owner** with regard to their **Interconnectors**, each **Demand Side Unit Operator** in relation to their **Demand Side Units**, provided that all the necessary information from these **Users** was made available by not later than **Gate Closure.**  **Initial Planning Data** |
| PC6.4.1 | Initial planning data to be submitted on the TSO website including the following information:  (i) **User’s** name (legal and project name);  (ii) **User’s** contact details;  (iii) **User’s** date of completed application;  (iv) Status of application, for example in progress or issued;  (v) Specific location, including grid co-ordinates; and  (vi) The capacity applied for the project; and  (vii) Interacting group where applicable. |