

## SCHEDULING AND DISPATCH CODE NO. 2

### CONTROL SCHEDULING AND DISPATCH

*[Note: Please note that this SDC2 has been drafted on the assumption that Active and Reactive Power are dispatched at Generator Terminals. Consideration is currently being given as to whether to dispatch in exported terms in the future. Should this decision be taken, this SDC2 will be revised].*

#### SDC2.1 INTRODUCTION

##### SDC2.1.1 **SEM** Provisions

- (a) This Scheduling and Dispatch Code No. 2 ("SDC2") forms part of the **Common Sections** of the **Grid Code**. [The **Common Sections** are those parts of the **Grid Code** which are under common governance in both the **Grid Code** and the **Other Grid Code**.]
- (b) The form of this SDC2 is the same as the SDC2 in the **Other Grid Code** except for references to relevant power systems and related terms, and except for those provisions which appear in italic font. The provisions in italic font only apply in relation to this **Grid Code** and relate to matters which are not appropriate to include in both codes.
- (c) This SDC2 needs to work in conjunction with a number of other documents, including the **Trading and Settlement Code ("TSC")**. The provisions of the **Grid Code** and the **Other Grid Code** will take precedence over the **TSC**. The **TSC** is the document under which the principal elements of the market for electricity operate. Every **User** which trades in electricity must be a party to the **TSC**. The **Single Market Operator** is a party to the **TSC**, as is the **TSO** and the **Other TSO**.
- (d) The obligation to submit data in relation to some of the information required to be provided to the **TSO** by this SDC2 may be fulfilled by **Users** where such information submitted under the **TSC** and is then provided to the **TSO** by the **Single Market Operator** under the provisions of the **TSC**, as further provided in this SDC2. The **TSO** may require **Users** to verify or update data received by it via the **Single Market Operator** in that way.
- (e) Further provisions dealing with the **Common Sections** are contained in the **General Conditions**.

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

- (a) **Generators** in respect of their **CDGUs**;

*[Note: Please note that unless otherwise specified in SDC2, CDGUs include CCGT Installations, Pumped Storage Generators in respect of*

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***their Pumped Storage generation (but not Demand) and Dispatchable WFPSs.]***

***[Note: Please note that Controllable WFPSs are not currently subject to Dispatch Instructions. The treatment of Controllable WFPSs in the SDCs is still being considered.]***

- (b) **Pumped Storage Generators** in respect of their **Pumped Storage Plant Demand**;
- (c) **[Interconnector Import Users]** in respect of their **[Interconnector Import Units/ electricity to be transferred onto the [Transmission] System]**; and

***[Note: Please note that the issue of references to interconnectors generally is still being considered.]***

- (d) **Dispatchable Demand Customers** in respect of their **Demand Side Units**.

SDC2.2 OBJECTIVE

The procedure for the issue of **Dispatch Instructions** by the **TSO**, is intended to enable (as far as possible) the **TSO** to match continuously **CDGU, Demand Side Unit** and/or **[Interconnector Import Unit]** output to **[Transmission] System Demand**, by utilising the **Merit Order** derived pursuant to SDC1 and the factors to be taken into account listed there and by taking into account any non-**CGDU** output together with an appropriate margin of reserve, whilst maintaining (so far as possible) the integrity of the **[Transmission] System** together with the security and quality of supply.

SDC2.3 SCOPE

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

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

***[Note: As explained above, please note that unless otherwise specified in SDC2, CDGUs include CCGT Installations, Pumped Storage Generators in respect of their Pumped Storage generation (but not Demand) and Dispatchable WFPSs.]***

- (b) **Pumped Storage Generators** with regard to their **Pumped Storage Plant Demand**;
- (c) **[Interconnector Import Users]** with regard to their **[Interconnector Import Units/electricity to be transferred onto the [Transmission] System]**; and

***[Note: Please note that the manner in which exported electricity will be dealt with and how this will impact on SDC2 is currently being considered.]***

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- (d) **Dispatchable Demand Customers** in relation to their **Demand Side Units**.

SDC2.4 PROCEDURE

SDC2.4.1 Information Used

SDC2.4.1.1 The information which the **TSO** shall use in assessing which **CDGU, Demand Side Unit, [Interconnector Import Unit]** and/or **Pumped Storage Plant Demand to Dispatch**, will be the **Availability Notices**, the **Merit Order** as derived under SDC1 and the other factors to be taken into account which are submitted to the **TSO** under SDC1 (subject to any subsequent revisions to the data under SDC1 and SDC2) and which are used by the **TSO** to compile the **Indicative Operations Schedule**, which includes **[Generation Scheduling and Dispatch Parameters/Operating Characteristics/Contracted Parameters]**, **Additional Grid Code Characteristics Notices**, **Reserve Characteristics** and **Generation Other Relevant Data** in respect of that **CDGU, Demand Side Unit, [Interconnector Import Unit]** and/or **Pumped Storage Plant Demand**.

*[Note: Please note that further consideration is being given to the wording of the above paragraph.]*

SDC2.4.1.2 Additional factors which the **TSO** will, however, also take into account are those **Generators** who have not complied [and/or no longer complying] with **Dispatch Instructions** or **Special Actions**, [requests which the **TSO** has (in its absolute discretion) granted for the early **Synchronisation** of a **CDGU [Note: and others?]** to the **[Transmission] System**, requests which the **TSO** has made and to which the **Generator** has agreed for the early or late **Synchronisation** of a **CDGU** to the **[Transmission] System** and variation between forecast and actual **Demand**, as these will have an effect on **Dispatch**.] *[Note: Please note that consideration is currently being given as to whether a reference to “real time variation requests” could replace the words in square brackets above.]* The **TSO** will also take into account the need to **Dispatch CDGUs, Demand Side Unit, [Interconnector Import Unit]** and/or **Pumped Storage Plant Demand** for **Testing** purposes.

SDC2.4.1.3 **Tie-Break Situations**

*[Note: Please note that further consideration is being given to the wording of this paragraph.]*

In the event of two or more **CDGUs, Demand Side Units, [Interconnector Import Units]** and/or **Pumped Storage Plant Demands** having the same **[Price Set/Indicative Price Bids]** and the **TSO** not being able to differentiate on the basis of the factors identified in SDC1.4.5.2, SDC1.4.5.3 and SDC1.4.5.4 (“**Tie-Break Situation**”), then the **TSO** will apply the following procedure when selecting which one to **Dispatch**:

- (a) **CDGUs, Demand Side Units, [Interconnector Import Units]** and/or **Pumped Storage Plant Demand** with **Priority Dispatch** for their entire capacity shall take precedence over **Units** not so identified;

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- (b) within the set of **CDGUs, Demand Side Units, [Interconnector Import Units]** and/or **Pumped Storage Plant Demand with Priority Dispatch** for their entire capacity, the resolution of any **Tie-Break Situation** will be [random]; and
- (c) within the remaining set of **CDGUs, Demand Side Units, [Interconnector Import Units]** and/or **Pumped Storage Plant Demand** without **Priority Dispatch** for their entire capacity, the resolution of any **Tie-Break Situation** will be [random].]

SDC2.4.1.4 *In this SDC2, where the provisions relating to **CCGTs** differ from the explicit requirements contained in a **Generating Unit Agreement**, a **Power Station Agreement** and/or a **System Support Services Agreement** in Northern Ireland, the provisions of that agreement will prevail.*

*[Note: Please note that the above paragraph applies to Northern Ireland only.]*

*[Note: Please note that the provisions dealing with the re-optimisation of schedule(s) are to be dealt with in SDC1.]*

SDC2.4.2 **Dispatch Instructions**

SDC2.4.2.1 **Introduction**

**Dispatch Instructions** relating to the **Trading Day** will normally be issued at any time during the period beginning immediately after the issue of the first **Indicative Operations Schedule** in respect of that **Trading Day**. The **TSO** may, however, at its discretion, issue **Dispatch Instructions** in relation to a **CDGU, Demand Side Unit, [Interconnector Import Unit]** and/or **Pumped Storage Plant Demand** prior to the issue of an **Indicative Operations Schedule** which includes that **CDGU, Demand Side Unit, [Interconnector Import Unit]** and/or **Pumped Storage Plant Demand**.

*[Note: This may occur, for example, where the unit has a long run-up time which exceeds the time remaining between when the Indicative Operations Schedule is issued and the time the unit must be at full load.]*

SDC2.4.2.2 **Issue of Dispatch Instructions**

- (a) The **TSO** will issue **Dispatch Instructions** direct to the **Generator** for the **Dispatch** of each **CDGU**.
- (b) The **TSO** will also issue **Dispatch Instructions** direct to **Demand Users** and **Pumped Storage Demand Users** in respect of their **Demand Side Units** and **Pumped Storage Plant Demand** respectively.
- (c) The **TSO** may issue **Dispatch Instructions** for any **CDGU, Demand Side Unit, [Interconnector Import Unit]** and/or **Pumped Storage Plant Demand** which has been declared **Available** in an **Availability Notice** even if that **CDGU, Demand Side Unit, [Interconnector Import Unit]** and/or **Pumped**

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**Storage Plant Demand** was not included in an **Indicative Operations Schedule**.

SDC2.4.2.3 Scope of **Dispatch Instructions** for **CDGUs**

In addition to instructions relating to the **Dispatch of Active Power, Dispatch Instructions** to [**Generators**] (unless otherwise specified by the **TSO** at the time of giving the **Dispatch Instruction**) shall implicitly include a requirement to provide **Spinning Reserve Capacity** in accordance with declared **Spinning Reserve Availability** under SDC1 *and/or the **Sustained Load Diagram** submitted pursuant to the **Planning Code (PC)** in **Northern Ireland**.*

SDC2.4.2.4 In addition to instructions relating to the **Dispatch of Active Power, Dispatch Instructions** in relation to **CDGUs** and, where appropriate, **Demand Side Units** and/or **Pumped Storage Plant Demand** may include:

- (a) [a **Dispatch Instruction** to provide a [**System Support Service** in Northern Ireland and **Ancillary Service** in the Republic of Ireland]];

*[Note: Please note that the use of a common term to refer to both **System Support Service in Northern Ireland** and **Ancillary Service in the Republic of Ireland** is currently being considered.]*

- (b) (i) **Mvars**: the individual **Reactive Power** output from **CDGUs** at the **Generator Terminals** or voltage levels (at instructed **MW** level) at the **Connection Point** which will be maintained by the **CDGU**.

*[Note: Please note that further consideration is being given to the treatment of **Mvars** in relation to **Dispatch Instructions**.]*

- (ii) The issue of **Dispatch Instructions** for **Active Power** at the **Generator Terminals** will be made with due regard to any resulting change in **Reactive Power** capability and may include instruction for reduction in **Active Power** generation to increase **Reactive Power** capability.

- (iii) In the event of a sudden change in [**Transmission**] **System Voltage**, a **Generator** must not take any action in respect of any of its **CDGUs** to override automatic **Mvar** response unless instructed otherwise by the **TSO** or unless immediate action is necessary to comply with stability limits. A **Generator** may take such action as is in its reasonable opinion necessary to avoid an imminent risk of injury to persons or material damage to property (including the **CDGU**).

- (c) **Fuels**: the [**Declared Fuel**] to be used by the **Generator** in operating the **CDGU**. The **Generator** shall only be permitted to change the [**Declared Fuel**] with the **TSO's** prior consent.

*[Note: Please note that the wording of the above paragraph is subject to the resolution of outstanding dual fuel issues.]*

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- (d) **Intertripping**: an instruction to switch into or out of service a "System to CDGU" Intertripping Scheme;
- (e) **Time to Synchronise**: a time to Synchronise or de-Synchronise CDGUs and, where appropriate Demand Side Units and Pumped Storage Plants [in relation to Pumped Storage Plant Demand];
- (f) **Tap Positions**: an instruction for a change in Generator Transformer tap positions;
- (g) **Synchronous Compensation**: an instruction, where contracted, for a CDGU to operate in Synchronous Compensation mode;
- (h) **Testing etc**: an instruction in relation to the carrying out of Testing, Monitoring or Investigations as required under OC11 of the SONI Grid Code / OC10 of the EirGrid Grid Code, or testing at the request of a User under OC11.8 of the SONI Grid Code / OC8.5 of the EirGrid Grid Code, or Commissioning/Acceptance Testing under the CC;
- (i) **[Transmission] System Tests**: an instruction in relation to the carrying out of a [Transmission] System Test as required under OC10 of the SONI Grid Code / OC 8.4 of the EirGrid Grid Code;
- (j) **Maximisation**: in the case of a [CDGU] which has registered to provide Maximisation an instruction requiring it to generate at a level in excess of its Availability but not exceeding its Maximisation Capability which may only be given if, at the time of issue of the instruction, the CDGU or CCGT Installation is Dispatched to an output equal to its Availability and provided that the limit on the number of hours for which such instructions may be given in any year, as set out in any arrangement relating to the relevant agreement is not thereby exceeded. Such an instruction shall be identified as a ["Maximisation Instruction"]. When the TSO gives a Dispatch Instruction which is in excess of the Availability of the [CDGU] which is not designated a "Maximisation Instruction", the Generator must inform the TSO immediately that the Dispatch Instruction is so in excess in order that the TSO can so designate the Dispatch Instruction as a Maximisation Instruction or withdraw the instruction. The Generator shall not then be obliged to comply with the Dispatch Instruction unless and until the TSO notifies it that the instruction is designated a "Maximisation Instruction";

*[Note: Please note that further consideration is being given to the wording of paragraph (j) above and as to how this paragraph ties in with the TSC.]*

- (k) **Cycle Operating Mode**: in the case of a CCGT Installation, an instruction specifying the Cycle Operating Mode. [The TSO may also issue Dispatch Instructions to a Generator to change the Operating Mode of any CDGU. The Generator must then ensure that the CDGU achieves the new Dispatched Operating Mode, without undue delay, in accordance with the Centrally Dispatched Generating Units Declared Availability and Declared Operating Characteristics. Dispatch Instructions in relation to

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**Operating Modes** issued by the **TSO** shall reflect the applicable **Availability Notice** and **Operating Characteristics**];

*[Note: Please note that the treatment of Cycle Operating Mode in relation to Dispatch Instructions is to be considered further.]*

- (l) **Pumped Storage**: mode changes for **Pumped Storage Plants** [in relation to **Pumped Storage Plant Demand**]. *[Note: It is being considered to put more detail in here.]*

Form of Instruction

SDC2.4.2.5

- (a) [Instructions may be given via **Electronic Interface** [and by telephone, by facsimile transmission or by [radio telephone]]. In the case of an **Intertipping Scheme** or a **Low Frequency Relay** initiated response from a **CDGU, Demand Side Unit, and/or Pumped Storage Plant** [in relation to **Pumped Storage Plant Demand**], the instruction will be given at the effective time which is consistent with the time at which the **Low Frequency Relay** operation occurred (this **Dispatch Instruction** will be issued retrospectively).]

*[Note: Please note that further consideration is being given to the above paragraph.]*

- (b) [The reduction by a **Generator** of the output of one of its **CDGUs** under SDC[3.6.1] *[Note: Please note that further consideration is being given to references to SDC 3 of the SONI Grid Code.]* shall be deemed to have followed a **Dispatch Instruction** issued by the **TSO**.]

*[Note: Please note that the issue above will be addressed once the issue regarding the need for an SDC3 section has been resolved.]*

- (c) (i) In the event of a temporary loss of the **TSO's Control Centre** as described under [OC7 of the **SONI Grid Code** / OC9 of the **EirGrid Grid Code**], each **Generator** shall, subject to the provisions of SDC2.4.2.5(c)(ii), continue to operate its **CDGUs** in accordance with the last **Dispatch Instructions** to have been issued by the **TSO** but shall use all reasonable endeavours to maintain [**Transmission**] **System Frequency** at the [*target Frequency*] of [50Hz] plus or minus [0.05Hz] by monitoring **Frequency** and increasing/decreasing the output of its **CDGUs** as necessary until such time as new **Dispatch Instructions** are received from the **TSO**.

*[Note: Please note that the issue of target Frequency and how this is being utilised is to be considered further by the TSOs.]*

*[Note: Please note that frequency levels are being checked.]*

- (ii) When operating its **CDGUs** in the circumstances described under SDC2.4.2.5(c)(i), a **Generator** shall never be required to **Dispatch** these units in a manner in which the **TSO** would not be entitled to

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require such units to be **Dispatched** by means of a **Dispatch Instruction** issued in accordance with this SDC2.

- (iii) [The **De-Synchronisation** of a **CDGU** following the operation of an **Intertripping Scheme** selected by the **TSO** shall be deemed to have happened as a result of a **Dispatch Instruction** issued by the **TSO**.] *[Note: This paragraph is to be considered further.]*

*[Note: Please note that the above paragraph has been worded to fit with the wording of OC7 of the SONI Grid Code, which deals with Dispatch Instructions following a temporary Control Centre loss.]*

- SDC2.4.2.6 (a) **Dispatch Instructions** given via **Electronic Interface**, [or by telephone or by facsimile transmission] will generally indicate the target **MW** (at *[target Frequency]*) to be provided at the **Generator Terminals** (or where provided in the relevant **Connection Agreement**, on a sent out basis) to be achieved in accordance with the respective **CDGU's [GSDPs/Operating Characteristics/Contracted Parameters]** and/or **Additional Grid Code Characteristics Notices** provided under SDC1 or this SDC2, or such rate within those parameters as is specified by the **TSO** in the **Dispatch Instructions**. *[Note: Please note that the way in which to deal with Demand here is currently being considered.]*

- (b) **Dispatch Instructions** which are given at the effective time which is consistent with the time at which a **Low Frequency Relay** operation occurred will be deemed to indicate the target **MW** (at *[target Frequency]*), which may either be at **Full Load** or at some lower output (as previously specified by the **TSO**), to be provided at the **Generator Terminals** which reflects and is in accordance with the **CDGU's** gas turbine's **[GSDPs/Operating Characteristics/Contracted Parameters]** and/or **Additional Grid Code Characteristics Notice** data given under (or as revised in accordance with) SDC1 or this SDC2.]

*[Note: Please note that the wording of the above paragraph is to be considered further.]*

SDC2.4.2.7 To ensure that there is no misunderstanding with respect to **Dispatch Instruction** given by the **TSO** to a **Generator**. To aid clarity, the form of and terms to be used by the **TSO** in issuing instructions together with their meanings are set out in the Appendices to this SDC2.

- SDC2.4.2.8 (a) Subject only to SDC2.4.2.9 and as provided below in this SDC2.4.2.8, **Dispatch Instructions** will not be inconsistent with the **Availability** and/or **[GSDPs/Operating Characteristics/Contracted Parameters]** and/or **Additional Grid Code Characteristics Notice** data and **Generation Other Relevant Data** notified to the **TSO** under SDC1 (and any revisions under SDC1 or this SDC2 to that data).

- (b) A new **Dispatch Instruction** may be subsequently given (including an instruction for a **Cancelled Start**) at any time.

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- (c) **Dispatch Instructions** may however be inconsistent with the **Availability** and/or **[GSDPs/Operating Characteristics/Contracted Parameters]** and/or **Additional Grid Code Characteristics Notice** data and/or **Generation Other Relevant Data** so notified to the **TSO** for the purposes of carrying out a test at the request of the relevant **Generator** under OC11.8 of the **SONI Grid Code** / OC8.5 of the **EirGrid Grid Code** or a **[Transmission] System Test** at the request of the relevant **Generator** under OC10.4 of the **SONI Grid Code**/ OC8.6 of the **EirGrid Grid Code**, to the extent that such **Dispatch Instructions** are consistent with the procedure agreed (or otherwise determined) for conducting the test or **[Transmission] System Test** (as the case may be).
- (d) For the avoidance of doubt, any **Dispatch Instructions** issued by the **TSO** for the purposes of carrying out a test at the request of the relevant **Generator** under OC11.8 of the **SONI Grid Code** / OC8.5 of the **EirGrid Grid Code** or a **[Transmission] System Test** at the request of the relevant **Generator** under OC10.4 of the **SONI Grid Code** / OC8.6 of the **EirGrid Grid Code** shall not be deemed to be **Dispatch Instructions** given pursuant to SDC2.4.2.9.

***[Note: Please note that SDC2.4.2.8 is currently subject to the consideration of the issue of Starts.]***

- SDC2.4.2.9 (a) To preserve **[Transmission] System** integrity under emergency circumstances where **Licence Standards** cannot be met the **TSO** may, however, issue **Dispatch Instructions** to change **CDGU**, **Demand Side Unit**, **[Interconnector Import Unit]** and/or **Pumped Storage Plant Demand** output even when this is outside parameters so registered or so amended. This may, for example, be an instruction to trip a **CDGU** or to **Part Load** a **CDGU**. The instruction will be stated by the **TSO** to be one in relation to emergency circumstances under SDC2.4.2.9.
- (b) In the case of a **Generator** with **Existing CDGUs**, a **Generator** may refuse to comply or continue to comply with instructions referred to in this **SDC2.4.2.9** but only:
- (i) in order to avoid, in the **Generator's** reasonable opinion, an imminent risk of injury to persons or material damage to property (including the **CDGU**); or
  - (ii) where in the **Generator's** reasonable opinion there is a significant risk that to comply with such instruction would result in damage or deterioration to **Plant** and/or **Apparatus** and/or costs, expenses or losses, in either case for which the **Generator** reasonably considers there to be no or an insufficient contractual commitment by the **TSO** to compensate the **Generator**.

SDC2.4.2.10 Communication with Users

- (a) **Dispatch Instructions** whether given via **Electronic Interface** [or by telephone or facsimile transmission] must be formally acknowledged immediately by the **User** at the **Generating Control Point** by telephone, [by

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return facsimile transmission], given in the manner agreed between the **User** and the **TSO** or a reason must be given as soon as possible for non-acceptance, which may (subject to SDC2.4.2.9) only be to avoid, in the **User's** reasonable opinion, an imminent risk of injury to persons or material damage to property (including the **CDGU**) or because they are not in accordance with the applicable **Availability Notice**, or [**GSDPs/ Operating Characteristics/ Contracted Parameters**], or **Additional Grid Code Characteristics Notices** or do not reflect **Generation Other Relevant Data** submitted by the **User** pursuant to SDC1.

- (b) In the event that in carrying out the **Dispatch Instructions**, an unforeseen problem arises, giving rise, in the **User's** reasonable opinion, to an imminent risk of injury to persons or material damage to property (including the **CDGU**) the **TSO** must be notified as soon as possible by telephone. *[Note: Users should note that the provisions of SDC2.4.2.15 apply.]*

SDC2.4.2.11 Action Required from Users

Each **User** will comply in accordance with SDC2.4.2.12 with all **Dispatch Instructions** given by the **TSO** unless the **User** has given notice to the **TSO** under the provisions of SDC2.4.2.10 regarding non-acceptance of **Dispatch Instructions**.

When complying with **Dispatch Instructions** for a **CCGT Installation** a **Generator** will operate its **CCGT Modules** in accordance with the applicable **CCGT Installation Matrix**.

SDC2.4.2.12 Implementation of Instructions by Users

**Users** will respond to **Dispatch Instructions** given by the **TSO** without delay, and, in any event, within one minute in accordance with the instruction, including those **Dispatch Instructions** issued pursuant to SDC 2.4.2.9. Instructions indicating a target **MW** output at the [*target Frequency*] will be complied with by **Users** notwithstanding any tolerance bands set out in any testing requirement or elsewhere in the **Grid Code**.

- 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 **Intertipping Schemes** or **Low Frequency Relay** operations.
- (b) **De-Synchronisation** may otherwise only take place without the **TSO's** prior agreement if it is done to avoid, in the **Generator's** reasonable opinion, an imminent risk of injury to persons or material damage to property (including the **CDGU**).
- (c) If that happens the **TSO** must be informed that it has taken place as soon as possible. *[Note: Please note that consideration is currently being given as to whether there is a need for an equivalent provision in relation to Demand Side Units and Pumped Storage Generating Plants.]*

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SDC2.4.2.14 The **TSO** may suspend the issue of **Dispatch Instructions** to **Generating Plant** in accordance with the **Merit Order** (having taken account of and applied the factors referred to in SDC1.4.5.4) to the extent that the conditions in SDC1.4.5.6 arise. When necessary the **TSO** will issue **Dispatch Instructions** for a **Black Start**.

SDC2.4.2.15 **Generating Plant Changes**

*[Note: Please note that consideration is currently being given as to whether there is a need for an equivalent provision in relation to Demand Side Units and Pumped Storage Generating Plants.]*

Each **Generator** at its **Generating Plant** will without delay notify the **TSO** by telephone [or by facsimile transmission] of any change or loss (temporary or otherwise) to the operational capability of the **Generating Plant** including any changes to the [**GSDPs/Operating Characteristics/Contracted Parameters**] and/or **Additional Grid Code Characteristics Notice** data of each **CDGU** (in the case of [**GSDPs/Operating Characteristics/Contracted Parameters**], by the submission of a **GSDP Revision Notice**) indicating (where possible) the magnitude and the duration of the change. In the case of **CDGUs** already **Synchronised** to the [**Transmission**] **System**, the **Generator** at its **Generating Plant** must also state whether or not the loss was instantaneous.

SDC2.4.2.16 Each **Generator** at its **Generating Plant** will operate its **Synchronised CDGUs** with **AVRs** and **var** limiters in service at all times (where required pursuant to CC.S1.5 of the **SONI Grid Code** / CC7.3 of the **EirGrid Grid Code**) unless released from this obligation in respect of a particular **CDGU** by the **TSO**.

SDC2.4.2.17 A **Generator** at its **Generating Plant** may request the **TSO's** agreement for one of its **CDGUs** at that **Generating Plant** to be operated without the **AVR** or **var** limiter in service. The **TSO's** agreement will be dependent on the risk that would be imposed on the [**Transmission**] **System** provided that in any event a **Generator** may take such action in relation to that **CDGU** as is reasonably necessary to avoid, in the **Generator's** reasonable opinion, an imminent risk of injury to persons or material damage to property (including the **CDGU**).

SDC2.4.2.18 **Minimum Demand Regulation ("MDR")**

**Synchronised CDGUs** must at all times be capable of reducing output sufficient to allow a sufficient **Regulating Margin** for adequate **Frequency Control**. The **TSO** will monitor the output data of the **Indicative Operations Schedule** against forecast the [**Demand**] to see whether the level of **MDR** for any period is insufficient, and may take any shortfall into account in **Dispatch**.

SDC2.4.3 **Special Actions**

The **TSO** may as part of the issue of **Dispatch Instructions** issue instructions for **Special Actions** (either pre- or post-fault) to a **Generator** in respect of any of its **CDGUs** in the event that the **TSO** in its reasonable opinion believes that such instructions are necessary in order to ensure that the **Licence Standards** are met. **Special Actions** will generally involve a **Load** change or a change in required **Notice to Synchronise** in a specific timescale on individual or groups of

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**CDGUs.** They may also include selection of "**System to CDGU**" intertrip schemes for stability or thermal reasons. Instructions for **Special Actions** will always be within [**GSDPs/Operating Characteristics/Contracted Parameters**].

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## SDC2 - APPENDIX A

**[Note: Please note that further consideration is being given to the wording of Appendix A.]**

### Dispatch Instructions for CDGUs

#### SDC2.A.1 General

In this **SDC2**, where the provisions relating to **CCGT Modules** and **CCGT Installations** differ from the explicit requirements contained in a **Generating Unit Agreement**, a **Power Station Agreement** and/or an **[System Support Services Agreement]** in Northern Ireland and **Ancillary Services Agreement** in the Republic of Ireland], the provisions of that agreement will prevail.

#### SDC2.A.2 Form of Dispatch Instruction

##### SDC2.A.2.1

All **Loading/de-Loading** rates will be assumed to be in accordance with **[GSDPs/Operating Characteristics/Contracted Parameters]** and **Additional Grid Code Characteristics Notice** data. Each **Dispatch Instruction** will, wherever possible, be kept simple, drawing as necessary from the following forms and SDC2.4.2.

##### SDC2.A.2.2

The **Dispatch Instruction** given by **Electronic Interface**, telephone, or facsimile transmission will normally follow the form:

- (a) the specific **CDGU** to which the instruction applies;
- (b) the output to which it is instructed;
- (c) if the start time is different from the time the instruction is issued, the start time will be included;
- (d) where specific **Loading/de-Loading** rates are concerned, a specific target time;
- (e) the issue time of the instruction;
- (f) the **[Designated Fuel]** and/or **[Declared Fuel]** (or fuel), as the case may be;
- (g) in the case of a **CDGU** which is an **Open Cycle Gas Turbine** or **CCGT Installation**, if the instruction is designated as a "**Maximisation Instruction**", this will be stated; and
- (h) in the case of a **CCGT Installation**, the **Operating Mode** to which it is instructed.

#### SDC2.A.3 Dispatching a Synchronised CDGU to increase or decrease output

##### SDC2.A.3.1

If the time of the **Dispatch Instruction** is 1400 hours, the Unit is Unit 1 and the output to be achieved is 205 **MW**, the relevant part of the instruction would be, for example:

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"Time 1400 hours. Unit 1 to 205 **MW**"

SDC2.A.3.2 If the start time is 1415 hours, it would be, for example:  
"Time 1400 hours. Unit 1 to 205 **MW**, start at 1415 hours"

SDC2.A.3.3 **Loading** and **de-Loading** rates are assumed to be in accordance with **[GSDPs/Operating Characteristics/Contracted Parameters]** and **Additional Grid Code Characteristics Notice** data unless otherwise stated. If different **Loading** or **de-Loading** rates are required, the time to be achieved will be stated, for example:

"Time 1400 hours. Unit 1 to 205 **MW** by 1420 hours"

SDC2.A.4 **Dispatching a CDGU to Synchronise/de-Synchronise**

SDC2.A.4.1 **CDGU Synchronising**

SDC2.A.4.1.1 In this instance, for **CDGUs**, the **Dispatch Instruction** issue time will always have due regard for the **Synchronising** time declared to the **TSO** by the **Generator** as a **[GSDPs/Operating Characteristics/Contracted Parameters]** or as part of **Additional Grid Code Characteristics Notice** data.

The instruction will follow the form, for example:

"Time 1300 hours. Unit 1, **Synchronise** at 1600 hours"

In relation to an instruction to **Synchronise**, the start time referred to in SDC2.A.2.2 will be deemed to be the time at which **Synchronisation** is to take place.

SDC2.A.4.1.2 Unless a **Loading** programme is also given at the same time it will be assumed that the **CDGU(s)** are to be brought to **Minimum Generation** and on the **Generator** reporting that the unit has **Synchronised** a further **Dispatch Instruction** will be issued.

SDC2.A.4.1.3 When a **Dispatch Instruction** for a **CDGU** to **Synchronise** is cancelled (ie. a **Cancelled Start**) before the unit is **Synchronised**, the instruction will follow the form, for example:

"Time 1400 hours. Unit 1, cancel **Synchronising** instruction"

SDC2.A.4.2 **CDGUs De-Synchronising**

SDC2.A.4.2.1 The **Dispatch Instruction** will normally follow the form, for example:

"Time 1300 hours. Unit 1, **Shutdown**"

If the instruction start time is for 1400 hours the form will be, for example:

"Time 1300 hours. Unit 1, **Shutdown**, start at 1400 hours"

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Both the above assume **De-Loading** rate at declared **[GSDPS/Operating Characteristics/Contracted Parameters]**. Otherwise the message will conclude with, for example:

"... and **De-Synchronise** at 1500 hours"

SDC2.A.5 **Frequency Control**

SDC2.A.5.1 All the above **Dispatch Instructions** will be deemed to be at the instructed "target **[Transmission] System Frequency**", i.e. where a **CDGU** is in the **Frequency Sensitive Mode** instructions refer to target output at target **[Transmission] System Frequency**. Target **[Transmission] System Frequency** changes will always be given to the **Generator** by telephone and will normally only be 49.95, 50.00, 50.05Hz.

SDC2.A.5.2 **CDGUs** required to be **Frequency** insensitive will be specifically instructed as such. The **Dispatch Instruction** will be of the form for example:

"Time 2100 hours. Unit 1, to **Frequency** insensitive mode"

SDC2.A.5.3 **Frequency Control** instructions may be issued in conjunction with, or separate from, a **Dispatch Instruction** relating to output.

SDC2.A.6 **Emergency Load Drop**

The **Dispatch Instruction** will be in a pre-arranged format and normally follow the form, for example:

"Time 2000 hours. Emergency **Load** drop of "X"**MW** in "Y" minutes"

SDC2.A.7 **Voltage Control Instruction**

In order that adequate **[Transmission] System** voltage profiles are maintained under normal and fault conditions a range of voltage control instructions will be utilised from time to time, for example:

- (a) Operate to target voltage of 282kv;
- (b) Maximum generation of **Reactive Power** (at current instructed **MW** output);
- (c) Increase reactive output by 10**Mvar** (at current instructed **MW** output).

SDC2.A.8 **Instruction to change Dispatched Fuel**

When the **TSO** wishes to instruct a **Generator** to change the fuel being burned in the operation of one of its **CDGUs** from one **Dispatched Fuel** (or fuel) to another (for example from 1% sulphur oil to 3% sulphur oil), the **Dispatch Instruction** will follow the form, for example:

"Time 1500 hours. Unit 2 change to 3% Fuel at 1700 hours".

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SDC2.A.9

Instruction to change **Designated Fuel** for a dual firing **CDGU**

When the **TSO** wishes to instruct a **Generator** to change the fuel being burned in the operation of one of its **CDGUs** which is capable of firing on two different fuels (for example, coal or oil), from one **Designated Fuel** (or fuel) to another (for example, from coal to oil), the instruction will follow the form, for example:

"Time 1500 hours. Unit 1 generate using oil at 1800 hours".

SDC2.A.10

[**Maximisation Instruction to CDGUs which are Open Cycle Gas Turbines**

When the **TSO** wishes to instruct a **Generator** to operate a **CDGU** which is an **Open Cycle Gas Turbine** at a level in excess of its **Availability** in accordance with SDC2.4.2.4(k), the instruction will follow the form, for example:

"**Maximisation Instruction.** Time 1800 hours. Unit GT2 to 58MW."]

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