SCHEDULING AND DESPATCH CODE NO. 2

CONTROL SCHEDULING AND DESPATCH

SDC2.1 **INTRODUCTION**

SDC2.1.1 **Scheduling and Despatch Code No. 2 ("SDC2")** sets out the procedure for **NIE** to issue **Despatch** instructions to **Generators** in respect of their **CDGUs** and/or **CD CCGT Installations** (including in relation to **Unit Nominations**) and, in the case of a **Generator** at a **Range Station** with **CDGUs**, in respect of the **Ranges** associated with such **CDGUs.** It is complementary to **SDC1** and **SDC3.**

SDC2.1.2 For the purposes of this **SDC2**, any reference to the **Designated Fuel** or the **Declared Fuel** to be used in the operation of a **CDGU** and/or **CD CCGT Installation** shall, in the case of a **CDGU** at a **Range Station**, be construed as a reference to the **Designated Fuel** or the **Declared Fuel** (as the case may be) to be used in the operation of the associated **Range**.

SDC2.2 **OBJECTIVE**

The procedure for the issue of **Despatch** instructions to **Generators** by **NIE**, is intended to enable (as far as possible) **NIE** to match continuously, utilising the **Merit Order** derived pursuant to **SDC1** and the factors to be taken into account listed there, **CDGU** and/or **CD CCGT Installation** output to **NIE System Demand** taking into account any transfers over any **External Interconnections** and non-**CGDU** output (for example NFFO plant) together with an appropriate margin of reserve whilst maintaining (so far as possible) the integrity of the **NIE System** together with the security and quality of supply.

SDC2.3 **SCOPE**

SDC2 applies to **NIE**, and to **Generators** with regard to their **Generating Plant**.

SDC2.4 **PROCEDURE**

SDC2.4.1 Information Used

SDC2.4.1.1 The information which **NIE** shall use in assessing which **CDGU** and/or **CD CCGT Installation** to **Despatch**, will be the **Availability Notice**, **Unit Nominations, Merit Order** as derived under **SDC1** and the other factors to be taken into account as listed there, **Generation Scheduling and Despatch Parameters**, **Reserve Characteristics** and **Generation Other Relevant Data** in respect of that **CDGU** and/or **CD CCGT Installation**, supplied to it under **SDC1** (and any revisions under **SDC1** and this **SDC2** to the data).

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SDC2.4.1.2 Subject as provided below, the factors used in the **Despatch** phase in assessing which **CDGUs** and/or **CD CCGT Installations** to **Despatch** in conjunction with the **Merit Order** as derived under **SDC1**, and the other matters identified in **SDC1.4.3**, will be those used by **NIE** to compile the **Generation Schedule** under **SDC1**, as listed in **SDC1.4.3.3** and **SDC1.4.3.5**.

SDC2.4.1.3 Additional factors which **NIE** will, however, also take into account are those **Generators** who have not complied with **Despatch** instructions or **Special Actions**, requests which **NIE** has (in its absolute discretion) granted for the early **Synchronisation** of a **CDGU** and/or **CD CCGT Installation** to the **NIE System**, requests which **NIE** has made and to which the **Generator** has agreed for the early or late **Synchronisation** of a **CDGU** and/or **CD CCGT Installation** to the **NIE System** and variation between forecast and actual **Demand**, as these will have an effect on **Despatch**. **NIE** will also take into account the need to **Despatch CDGUs** and/or **CD CCGT Installations** for **Monitoring**, **Testing** or **Investigation** purposes under **OC11**, or for testing at the request of a **User**, under **OC11.8**, or for **Commissioning/Acceptance Testing** under the **CC**, or for the purposes of **System Tests** under **OC10**, which may result in **CDGUs** and/or **CD CCGT Installations** being **Despatched** out of merit.

SDC2.4.1.4 In the event of two or more **CDGUs** and/or **CD CCGT Installations** having the same **Merit Order Price Set** and **NIE** not being able to differentiate on the basis of the factors identified in **SDC1.4.3.2**, **SDC1.4.3.3** and **SDC1.4.3.4**, then **NIE** will select first for **Despatch** the one which in **NIE's** reasonable judgement is most appropriate in all the circumstances.

SDC2.4.1.5 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 a **SSS Agreement**, the provisions of that agreement will prevail.

SDC2.4.2 **Despatch** Instructions

SDC2.4.2.1 Introduction

Despatch instructions relating to the **Schedule Day** will normally be issued at any time during the period beginning immediately after the issue of the **Indicative Running Notifications** in respect of that **Schedule Day**. **NIE** may, however, at its discretion, issue **Despatch** instructions in relation to a **CDGU** and/or **CD CCGT Installation** prior to the issue of an **Indicative Running Notification** which includes that **CDGU** and/or **CD CCGT Installation**.

SDC2.4.2.2 (a) **NIE** will issue **Despatch** instructions direct to the **Generator** at the **Power Station** for the **Despatch** of each **CDGU** or **CD CCGT Installation**. Subject to the provisions of this **SDC2**, **NIE** will issue **Despatch** instructions in

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respect of **Unit Nominations**. **NIE** may issue **Despatch** instructions for any **CDGU** or **CD CCGT Installation** which has been declared **Available** in an **Availability Notice** even if that **CDGU** or **CD CCGT Installation** was not included in an **Indicative Running Notification**.

(b) A **Despatch** instruction in relation to any **CDGU** at a **Range Station** shall not be valid unless there is prevailing a valid **Despatch** instruction (or deemed **Despatch** instruction) issued by **NIE** in respect of the **Range** by which such **CDGU** is served, instructing the **Instructed Load Band** necessary for compliance with the **Despatch** instruction relating to the **CDGU** in accordance with the provisions of Appendix B to this **SDC2.**

SDC2.4.2.3 Scope of **Despatch** Instructions for **CDGUs** and **CD CCGT Installations**

In addition to instructions relating to the **Despatch** of **Active Power**, **Despatch** instructions (unless otherwise specified by **NIE** at the time of giving the **Despatch** instruction) shall be deemed to include an automatic instruction of **Spinning Reserve**, the level of which is to be provided in accordance with the **Sustained Load Diagram** set out in Schedule 8 of the relevant **Generating Unit Agreement** (or in the **System Support Services Agreement**, as the case may be), and submitted pursuant to the **PC**.

SDC2.4.2.4 In addition to instructions relating to the **Despatch** of **Active Power**, **Despatch** instructions in relation to **CDGUs** and/or **CD CCGT Installations** may include:

(a) target (at instructed **MW** level) voltage levels at the **Delivery Point** or the individual **Reactive Power** output from **CDGUs** and/or **CD CCGT Installations** at the **Generator Terminals** which will be maintained by the **CDGU** and/or **CD CCGT Installation**. The issue of **Despatch** 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. In the event of a sudden change in **NIE System** voltage, a **Generator** must not take any action in respect of any of its **CDGUs** and/or **CD CCGT Installations** to override automatic **MVAr** response unless instructed otherwise by **NIE** 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** and/or **CD CCGT Installation**);

(b) (i) the **Declared Fuel** to be used by the **Generator** in operating the **CDGU** or **CD CCGT Installation**. In the case of a **CDGU** or **CD CCGT Installation** capable of firing on different fuels, the **Despatch** instruction may also specify the **Designated Fuel** to be used by the

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Generator. If no **Declared Fuel** and/or, where relevant, **Designated Fuel** is contained in the **Despatch** instruction, then the most recently instructed **Despatched Fuel** and/or, where relevant, **Designated Fuel** will apply. The part of a **Despatch** instruction which specifies a change in the **Despatched Fuel** and/or, where relevant, **Designated Fuel** to be burned by the **Generator** shall be known as a "**Despatched Fuel Notice**". **NIE** may, however, use a separate **Despatched Fuel Notice** and which may be issued separately from any **Despatch** instruction, containing the above information. If a fuel has been notified for an **EC CDGU** or an **EC CD CCGT Installation**, the fuel may be specified;

(ii) in the case of a **PPA CDGU** and/or **PPA CD CCGT Installation** only, the **Generator** may (subject to the following provisions of this paragraph (ii)), in complying with a **Despatch** instruction burn a fuel other than the **Declared Fuel** and/or, where relevant, the **Designated Fuel** specified in the **Despatch** instruction. If, in respect of an **Emissions Period**, there occurs an **Overemission** of **SOx** or an **Overemission** of **NOx**, then the provisions of Clause 5.1 of the relevant **Power Station Agreement** shall apply;

(c) a reference to any implications for future **Despatch** requirements and the security of the **NIE System**, including arrangements for change in output to meet post fault security requirements;

(d) an instruction to switch into or out of service a "**System** to **CDGU** or **CD CCGT Installation**" **Intertripping** scheme;

(e) notice and changes in notice to **Synchronise** or **de-Synchronise CDGUs** and/or **CD CCGT Installations** in a specific timescale;

(f) instructions relating to abnormal conditions, such as adverse weather conditions, or high or low **NIE System** voltage;

(g) an instruction for a change in **Generator Transformer** tap positions;

(h) an instruction for a **CDGU** or **CD CCGT Installation** to operate in **Synchronous Compensation** mode;

(i) an instruction in relation to the carrying out of **Testing, Monitoring** or **Investigations** as required under **OC11**, or testing at the request of a **User** under **OC11.8**, or **Commissioning/Acceptance Testing** under the **CC**;

(j) an instruction in relation to the carrying out of a **System Test** as required under **OC10**; and

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(k) in the case of a **CDGU** which is an **Open Cycle Gas Turbine** or **CD CCGT Installation** an instruction requiring it to generate at a level in excess of its **Availability** but not exceeding its **Temperature Adjusted Peak Capability** which may only be given if, at the time of issue of the instruction, the **CDGU** or **CD CCGT Installation** is **Despatched** 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 [paragraph 2 of Schedule 1] to the relevant **Generating Unit Agreement** is not thereby exceeded. Such an instruction shall be identified as a "**Peak Instruction**". When **NIE** gives a **Despatch** instruction which is in excess of the **Availability** of the **CDGU** which is an **Open Cycle Gas Turbine** or **CD CCGT Installation** which is not designated a "**Peak Instruction**", the **Generator** must inform **NIE** immediately that the **Despatch** instruction is so in excess in order that **NIE** can so designate the **Despatch** instruction as a **Peak Instruction** or withdraw the instruction. The **Generator** shall not then be obliged to comply with the **Despatch** instruction unless and until **NIE** notifies it that the instruction is designated a "**Peak Instruction**";

(l) in the case of a **CD CCGT Installation**, an instruction specifying the **Operating Mode**.

Form of Instruction

SDC2.4.2.5 (a) Instructions may be given by telephone, by facsimile transmission, by **Instructor** or by radio telephone. They may be given electronically where a relevant system has been established between **NIE** and the **Generator**. In the case of a **Low Frequency Relay** initiated response from a **CDGU** which is an **Open Cycle Gas Turbine** the instruction will be deemed to be given at the moment that the **Low Frequency Relay** operates.

(b) In addition, **NIE** may notify a **Generator** that in certain circumstances it requires the **Generator** to operate in accordance with a **Standing Instruction,** which instruction will be deemed to be given when the circumstances arise. These **Standing Instructions** may include instructions on how to operate if **NIE** loses the ability to direct the operation of the **NIE System** temporarily, in the circumstances envisaged under **OC7** where the **NIE Control Centre** is incapacitated for any reason pending the transfer of **System** operations to a temporary control centre. **NIE** shall not, by means of a **Standing Instruction**, require any of a **Generator's CDGUs** and/or **CD CCGT Installations** to be **Despatched** in a manner in which **NIE** would not be entitled to require such units to be **Despatched** by means of a **Despatch** instruction issued in accordance with this **SDC2**.

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(c) The reduction by a **Generator** of the output of one of its **CDGUs** or **CD CCGT Installations** under **SDC3.6.1** shall be deemed to have followed a **Despatch** instruction issued by **NIE**.

(d) The **De-Synchronisation** of a **CDGU** or **CD CCGT Installation** following the operation of an intertrip scheme selected by **NIE** shall be deemed to have happened as a result of a **Despatch** instruction issued by **NIE**.

SDC2.4.2.6 (a) **Despatch** instructions given by telephone, by facsimile transmission or electronically 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** or **CD CCGT Installations GSDPs** given under (or as revised in accordance with) **SDC1** or this **SDC2**, or such rate within those parameters as is specified by **NIE** in the **Despatch** instructions.

(b) **Despatch** instructions given by **Instructor** will indicate the target **MW** (at target **Frequency**) to be provided at the **Generator Terminals** of the **CDGU** or **CD CCGT Installation** to which that **Instructor** relates (or where provided in the relevant **Connection Agreement**, on a sent out basis), in the case of a **Power Station** which has an **Instructor** for each **CDGU** or **CD CCGT Installation**.

(c) **Despatch** instructions deemed to be given upon the operation of a **Low Frequency Relay** 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 **NIE**), to be provided at the **Generator Terminals** which reflects and is in accordance with the gas turbine **CDGU's** (which is an **Open Cycle Gas Turbine**) **GSDPs** given under (or as revised in accordance with) **SDC1** or this **SDC2**.

(d) **Despatch** instructions deemed to be given upon the activation of a **Standing Instruction** will be deemed to indicate the target **MW** (at target **Frequency**), which may either be at **Full Load** or at some lower output (to be provided at the **Generator Terminals** (or where provided in the relevant **Connection Agreement**, on a sent out basis)) as set out in the **Standing Instruction** notified by **NIE** from time to time, to be achieved in accordance with the respective **GSDPs** given under (or as revised in accordance with) **SDC1** or this **SDC2**, or such rate within those parameters as is specified in the **Standing Instruction**.

SDC2.4.2.7 The form of and terms to be used by **NIE** in issuing instructions together with their meanings are set out in the Appendices to this SDC2.

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SDC2.4.2.8 Subject only to **SDC2.4.2.9** and as provided below in this **SDC2.4.2.8, Despatch** instructions will not be inconsistent with the **Availability**, **Unit Nominations** and/or **GSDPs** and **Generation Other Relevant Data** notified to **NIE** under **SDC1** (and any revisions under **SDC1** or this **SDC2** to that data). A **Despatch** instruction may be subsequently cancelled or varied (including an instruction for a **Cancelled Start**) at any time. **Despatch** instructions may however be inconsistent with the **Availability** and/or **Unit Nominations** and/or **GSDPs** and/or **Generation Other Relevant Data** so notified to **NIE** for the purposes of carrying out a test at the request of the relevant **Generator** under **OC11.8** or a **System Test** at the request of the relevant **Generator** under **OC10.4**, to the extent that such **Despatch** instructions are consistent with the procedure agreed (or otherwise determined) for conducting the test or **System Test** (as the case may be). For the avoidance of doubt, any **Despatch** instructions issued by **NIE** for the purposes of carrying out a test at the request of the relevant **Generator** under **OC11.8** or a **System Test** at the request of the relevant **Generator** under **OC10.4** shall not be deemed to be **Despatch** instructions given pursuant to **SDC2.4.2.9**.

SDC2.4.2.9 To preserve **NIE System** integrity under emergency circumstances where **Licence Standards** cannot be met **NIE** may, however, issue **Despatch** instructions to change **CDGU** or **CD CCGT Installation** output even when this is outside parameters so registered or so amended. This may, for example, be an instruction to trip a **CDGU** or **CD CCGT Installation** or to **Part Load** a **CDGU** or **CD CCGT Installation**. The instruction will be stated by **NIE** to be one in relation to emergency circumstances under **SDC2.4.2.9**. In the case of a **Generator** with **Existing CDGUs** and/or **CD CCGT Installations**, the provisions of **GC12.5** shall be imported into (and, for the purposes of the **NIE Licence**, regarded as forming part of) this **SDC2.4.2.9**.

SDC2.4.2.10 Communication with **Generators**

(a) A **Generator** must, at the beginning of each shift at its **Generating Plant**, contact **NIE** by telephone and the operator at the **Generating Plant** and the operator at **NIE** must exchange names in order to identify each other. If during the shift at the **Generating Plant** the operator changes, the person whose operator has changed must notify the other accordingly.

(b) **Despatch** instructions whether given by telephone, by facsimile transmission or by **Instructor** must be formally acknowledged immediately by the **Generator** at the **Generating Plant** by telephone, by return facsimile transmission or by acceptance of the **Instructor** signal, given in the manner agreed between the **Generator** and **NIE** 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 **Generator's** reasonable opinion, an imminent risk of injury to persons or material damage to property (including the **CDGU** and/or **CD CCGT Installation**) or because they are not in accordance with the applicable

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Availability Notice, or **GSDPs** or do not reflect **Generation Other Relevant Data** submitted by the **Generator** pursuant to **SDC1**.

(c) In the event that in carrying out the **Despatch** instructions, an unforeseen problem arises, giving rise, in the **Generator's** reasonable opinion, to an imminent risk of injury to persons or material damage to property (including the **CDGU** and/or **CD CCGT Installation**) **NIE** must be notified as soon as possible by telephone.

SDC2.4.2.11 Action Required from **Generators**

Each **Generator** will comply in accordance with **SDC2.4.2.12** with all **Despatch** instructions properly given by **NIE** unless the **Generator** has given notice to **NIE** under the provisions of **SDC2.4.2.10** regarding non-acceptance of **Despatch** instructions. A **Generator** shall not however be in default in complying with the **Despatch** instruction if, subsequent to the issue of the **Despatch** instruction, the **Generator** and **NIE** agree on early or late **Synchronisation** and the **Generator Synchronises** the relevant **CDGU** and/or **CD CCGT Installation** in accordance with that agreement.

When complying with **Despatch** instructions for a **CD CCGT Installation** a **Generator** will operate its **CCGT Modules** in accordance with the applicable **CD CCGT Installation Matrix.**

SDC2.4.2.12 Implementation of Instructions by **Generators**

Generators will respond to **Despatch** instructions properly given by **NIE** without delay in accordance with the instruction, including those **Despatch** instructions issued pursuant to **SDC2.4.2.9** and those **Despatch** instructions issued in respect of **Ranges** in accordance with Appendix B to this **SDC2**. Instructions indicating a target **MW** output at the target **Frequency** will be complied with by **Generators** notwithstanding any tolerance bands set out in the Appendix to **OC11** or elsewhere in the **Grid Code.**

SDC2.4.2.13 Subject to the exception set out below in this **SDC2.4.2.13, Generators** will only **Synchronise** or **de-Synchronise CDGUs** or **CD CCGT Installations** to the **Despatch** instructions of **NIE** or unless it occurs automatically as a result of intertrip schemes or **Low Frequency Relay** operations. **De-Synchronisation** may otherwise only take place without **NIE'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** and/or **CD CCGT Installation**). If that happens **NIE** must be informed that it has taken place as soon as possible.

SDC2.4.2.14 **NIE** may suspend the issue of **Despatch** instructions to **Generating Plant** in accordance with the **Merit Order** (having taken account of and applied the factors

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referred to in **SDC1.4.3.3)** to the extent that the conditions in **SDC1.4.3.5** arise. When necessary **NIE** will issue **Despatch** instructions for a **Black Start**.

SDC2.4.2.15 **Generating Plant** Changes

(a) Each **Generator** at its **Generating Plant** will without delay notify **NIE** 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 **Generation Scheduling and Despatch Parameters** of each **CDGU** and/or **CD CCGT Installation** (in the case of **Generation Scheduling and Despatch 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** and/or **CD CCGT Installations** already **Synchronised** to the **NIE System**, the **Generator** at its **Generating Plant** must also state whether or not the loss was instantaneous.

(b) In the case of a **Range Station**, the **Generator** shall, in addition, notify **NIE** without delay by telephone or facsimile transmission of any change or loss (temporary or otherwise) to the operational capability of any of its **Ranges**, to the extent that the **Range** can no longer meet its **Contracted Range Capacity** (or, if lower, the equivalent of the aggregate **Availability** of the **CDGUs** associated with the **Range**) by a **Range Availability Notice** indicating (where possible) the magnitude and likely duration of the change.

SDC2.4.2.16 Each **Generator** at its **Generating Plant** will operate its **Synchronised CDGUs** and/or **CD CCGT Installations** with **AVRs** and **VAR** limiters in service at all times (where required pursuant to **CC7.5**) unless released from this obligation in respect of a particular **CDGU** and/or **CD CCGT Installation** by **NIE**.

SDC2.4.2.17 A **Generator** at its **Generating Plant** may request **NIE's** agreement for one of its **CDGUs** and/or **CD CCGT Installations** at that **Generating Plant** to be operated without the **AVR** or **VAR** limiter in service. **NIE's** agreement will be dependent on the risk that would be imposed on the **NIE System** provided that in any event a **Generator** may take such action in relation to that **CDGU** and/or **CD CCGT Installation** 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** and/or **CD CCGT Installation**).

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

Synchronised CDGUs and **CD CCGT Installations** must at all times be capable of reducing output sufficient to allow a sufficient **Regulating Margin** for adequate **Frequency Control**. **NIE** will monitor the output data of the **Generation Schedule** against forecast **NIE Demand** to see whether the level of **MDR** for any period is insufficient, and may take any shortfall into account in **Despatch**.

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SDC2.4.3 **Special Actions**

NIE may as part of the issue of **Despatch** instructions issue instructions for **Special Actions** (either pre- or post-fault) to a **Generator** in respect of any of its **CDGUs** and/or **CD CCGT Installations** in the event that **NIE** 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 **CDGUs** and/or **CD CCGT Installations**. They may also include selection of "**System** to **CDGU** or **CD CCGT Installation**" intertrip schemes for stability or thermal reasons. Instructions for **Special Actions** will always be within **Generation Scheduling and Despatch Parameters**.

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SDC2 - APPENDIX A

Despatch Instructions for **CDGUs** and **CD CCGT Installations**

SDC2.A.1 Form of **Despatch** Instruction

SDC2.A.1.1 All **Loading/de-Loading** rates will be assumed to be in accordance with **Generation Scheduling and Despatch Parameters**. Each **Despatch** instruction will, wherever possible, be kept simple, drawing as necessary from the following forms and **SDC2.4.2.**

SDC2.A.1.2 (a) The **Despatch** instruction given by telephone, electronically or facsimile transmission will normally follow the form:

(i) the specific **CDGU** or **CD CCGT Installation** to which the instruction applies;

(ii) the output to which it is instructed;

(iii) if the start time is different from the time the instruction is issued, the start time will be included;

(iv) where specific **Loading/de-Loading** rates are concerned, a specific target time;

(v) the issue time of the instruction;

(vi) the **Designated Fuel** and/or **Declared Fuel** (or fuel), as the case may be;

(vii) in the case of a **CDGU** which is an **Open Cycle Gas Turbine** or **CD CCGT Installation**, if the instruction is designated as a "**Peak Instruction**", this will be stated; and

(viii) in the case of a **CD CCGT Installation**, the **Operating Mode** to which it is instructed.

(b) The **Despatch** instruction given by **Instructor** will normally follow the form:

(i) the specific **CDGU** or **CD CCGT Installation** to which the instruction applies, if the **Instructor** is on a unit basis or the group of **CDGUs** or **CD CCGT Installations** to which the instruction applies;

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(ii) the output to which it is instructed; and

(iii) in the case of a **CD CCGT Installation**, the **Operating Mode** to which it is instructed.

Any **Despatch** instruction relating to the **Designated Fuel** and/or **Declared Fuel**, (or fuel) as the case may be, will be given by telephone, electronically or by facsimile transmission.

SDC2.A.2 **Despatching** a **Synchronised CDGU** and/or **CD CCGT Installation** to increase or decrease output

SDC2.A.2.1 If the time of the **Despatch** 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:

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

SDC2.A.2.2 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.2.3 **Loading** and **de-Loading** rates are assumed to be in accordance with **Generation Scheduling and Despatch Parameters** 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.3 **Despatching** a **CDGU** and/or **CD CCGT Installation** to **Synchronise/de-Synchronise**

SDC2.A.3.1 **CDGU** and/or **CD CCGT Installation Synchronising**

SDC2.A.3.1.1 In this instance, for **CDGUs** and/or **CD CCGT Installations**, the **Despatch** instruction issue time will always have due regard for the **Synchronising** time declared to **NIE** by the **Generator** as a **GSDP**.

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.1.2(a)** will be deemed to be the time at which **Synchronisation** is to take place.

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SDC2.A.3.1.2 Unless a **Loading** programme is also given at the same time it will be assumed that the **CDGU(s)** and/or **CD CCGT Installation(s)** are to be brought to **Minimum Generation** and on the **Generator** reporting that the unit has **Synchronised** a further **Despatch** instruction will be issued.

SDC2.A.3.1.3 When a **Despatch** instruction for a **CDGU** and/or **CD CCGT Installation** 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.3.2 **CDGUs and/or CD CCGT Installations De-Synchronising**

SDC2.A.3.2.1 The **Despatch** 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"

Both the above assume **De-Loading** rate at declared **Generation Scheduling and Despatch Parameters**. Otherwise the message will conclude with, for example:

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

SDC2.A.4 **Frequency Control**

SDC2.A.4.1 All the above **Despatch** instructions will be deemed to be at the instructed "target **NIE System Frequency**", i.e. where a **CDGU** or **CD CCGT Installation** is in the **Frequency Sensitive Mode** instructions refer to target output at target **NIE System Frequency**. Target **NIE 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.4.2 **CDGUs** and **CD CCGT Installations** required to be **Frequency** insensitive will be specifically instructed as such. The **Despatch** instruction will be of the form for example:

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

SDC2.A.4.3 **Frequency Control** instructions may be issued in conjunction with, or separate from, a **Despatch** instruction relating to output.

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SDC2.A.5 Emergency **Load** Drop

The **Despatch** 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.6 Voltage Control Instruction

In order that adequate **NIE 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.7 Instruction to change **Despatched Fuel**

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

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

SDC2.A.8 Instruction to change **Designated Fuel** for a dual firing **CDGU**

When **NIE** 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.9 **Peak Instruction** to **CDGUs** which are **Open Cycle Gas Turbines**

When **NIE** 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:

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

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SDC2 - APPENDIX B

Range Stations - Despatch instructions for Ranges

SDC2B.1 **Despatch** instructions

SDC2B.1.1 Subject only to **SDC2B.1.9** and **SDC2B.1.10**, the **Generator** shall not be obliged to comply with a **Despatch** instruction to operate a **Range** if such **Despatch** instruction:-

(a) is inconsistent with the **Range Availability** of a **Range** notified to **NIE** by the **Generator** in a **Range Availability Notice**;

(b) would require the operation of the **Range** outside its **Contracted Range Parameters**; or

(c) would require the operation of a **Range** in excess of **Load Band ECR**, save as otherwise provided in the relevant **Power Station Agreement**.

SDC2B.1.2 Except where a **Despatch** instruction is issued under **SDC2B.1.3**, a **Despatch** instruction to **Start-Up** any **CDGU** associated with the **Range** shall be deemed to include an instruction to the **Generator** to increase the **Instructed Load Band** (to the extent necessary, given the prevailing **Instructed Load Band**) with effect from the time at which the relevant **CDGU** is instructed to be **Synchronised**, in accordance with the requirements of the relevant **Power Station Agreement**. Unless **SDC2B.2.1** or **SDC2B.2.2** applies, such increase shall not be required to take effect until after the expiry of the **Cold To Steaming Interval**.

SDC2B.1.3 Subject to **SDC2B.1.5** and notwithstanding **SDC2B.1.2**, **NIE** may increase or decrease the **Instructed Load Band** of a **Range** at any time by issuing a **Despatch** instruction to that effect (specifying the time at which such increase or decrease is to be effective) save that, unless **SDC2B.2.2** applies, a **Despatch** instruction (other than one to **Start-Up** a **CDGU**) shall not require an increase to take effect before the expiry of the **Cold To Standby Interval** (such period to commence immediately after the time at which such **Despatch** instruction is issued).

SDC2B.1.4 The **Generator** shall not be obliged to comply with any **Despatch** instruction which would require the **CDGUs** associated with a **Range** to operate continuously at an aggregate **Despatched Output** which, when expressed in **MW(e)**, would fall between minimum capacity and minimum capacity (for continuous operation) (as specified in the relevant **Power Station Agreement**) of any **Load Band** for the **Range**. The interval between minimum capacity and minimum capacity (for continuous operation) reflects the transient condition when **CDGUs** associated with

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the **Range** are being **Loaded** or **De-loaded** but is an interval where continuous operation is not permitted.

SDC2B.1.5 Subject only to **SDC2.B.1.10**, the **Generator** shall not unless otherwise provided in the relevant **Power Station Agreement** be obliged to comply with a **Despatch** instruction requiring the **Generator** to provide an **Instructed Load Band** which is higher than the lowest **Load Band** for which the capacity range (as specified in the relevant **Power Station Agreement**) includes the level of **Range Availability** for the **Range** concerned, as notified by the **Generator** in the most recent **Range Availability Notice.**

SDC2B.1.6 Unless **SDC2B.2.1** or **SDC2B.2.2** applies, if **NIE** issues a **Despatch** instruction increasing the aggregate **Despatched Output** of the **CDGUs** associated with a **Range** to a level which, when expressed in **MW(e)**, is above the maximum capacity for the **Active Load Band** (as determined in accordance with the relevant **Power Station Agreement**) prevailing immediately prior to the issue of the instruction, such increase shall not be required to take effect until after the expiry of the **Standby To Steaming Interval** (such period to commence immediately after the issue of the **Despatch** instruction).

SDC2B.1.7 Unless **SDC2B.3.1** applies, the **Generator** shall not decrease the **Instructed Load Band** otherwise than in accordance with **NIE's Despatch** instructions to decrease the **Instructed Load Band**.

SDC2B.1.8 The **Generator** shall not be obliged to comply with a **Despatch** instruction in respect of a **CDGU** (unless it is an instruction to **Start-Up** a **CDGU**, in which case the rule in **SDC2B.1.2** shall apply) which would require the aggregate **Despatched Output** of the **CDGUs** associated with a **Range** to be at a level which, when expressed in **MW(e)**, would be higher than the maximum capacity of the prevailing **Instructed Load Band** (as specified in the relevant **Power Station Agreement**).

SDC2B.1.9 To preserve **NIE System** integrity under emergency circumstances where **Licence Standards** cannot be met, **NIE** may issue **Despatch** instructions to change the **Instructed Load Band** of a **Range** even where this will:-

(a) involve the operation of the **Range** above the level of **Range Availability** declared in respect of the **Range** at the relevant time; or

(b) involve the operation of the **Range** outside its **Contracted Range Parameters**.

Any such **Despatch** instruction will be stated by **NIE** to be one in relation to emergency circumstances under this **SDC2B.1.9**. In the case of a **Generator** at a **Range Station** with **Existing CDGUs** or **CD CCGT Installations**, the provisions

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of **GC12.6** shall be imported into (and, for the purpose of the **NIE Licence,** regarded as forming part of) this **SDC2B.1.9**.

SDC2B.1.10 In circumstances where the **Generator** has requested a **System Test** under **OC10.4** or a test under **OC11.8**, **Despatch** instructions may be inconsistent with **Range Availability** and/or **Contracted Range Parameters**, may require the **Generator** to provide an **Instructed Load Band** which is higher than the minimum **Load Band** (calculated in accordance with the relevant **Power Station Agreement**) required to meet the **Range Availability**, or may require the operation of the **Range** above **Load Band ECR** to the extent that such **Despatch** instructions are consistent with the procedure agreed (or otherwise determined) for conducting the **System Test** or test (as the case may be). For the avoidance of doubt, any **Despatch** instructions issued by **NIE** for the purposes of carrying out a **System Test** at the request of the **Generator** under **OC10.4** or a test at the request of the **Generator** under **OC11.8** shall not be deemed to be **Despatch** instructions given pursuant to **SDC2B.1.9**.

SDC2B.2 Increases in **Range Availability**

SDC2B.2.1 If the **Generator** issues a **Range Availability Notice** increasing the level of **Range Availability** of a **Range** from zero with effect from a specified time (the "specified time") where the period between the time of issue of the **Range Availability Notice** and the specified time is less than the **Cold Range Start Interval**, **NIE** shall be entitled, within one hour of the time of issue of the **Range Availability Notice**, to issue to the **Generator** a **Despatch** instruction(s) in respect of one or more of the **CDGUs** associated with the **Range** and which have been declared **Available**, to **Synchronise** at the specified time regardless of the **Cold Range Start Interval** and the applicable minimum time to **Synchronise** registered as a **GSDP** in respect of the relevant **CDGU(s)** but subject to **SDC2B.2.3**.

SDC2B.2.2 If the **Generator** issues a **Range Availability Notice** increasing the level of **Range Availability** of a **Range** other than from zero with effect from a specified time (the "specified time") where the period between the time of issue of the **Range Availability Notice** and the specified time is less than:-

(a) in circumstances where all **Load Bands** for the **Range** are **Cold Load Bands,** the **Cold Range Start Interval**; or

(b) in any other case, the **Cold To Steaming Interval**;

NIE shall be entitled (within one hour of the time of issue of the **Range Availability Notice**) to issue **Despatch** instructions to **Synchronise CDGUs** associated with the **Range** and/or to increase their aggregate **Despatched Output** (with effect from the specified time, but subject to **SDC2B.2.3**), provided that the aggregate increase in **Despatch Output** shall not exceed an amount which, when expressed in **MW(e)**, would exceed the amount by which the **Range Availability** has been increased.

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SDC2B.2.3 If **NIE** instructs the **Generator** to **Synchronise** one or more **CDGUs** pursuant to **SDC2B.2.1** or **SDC2B.2.2**, the time at which the first **CDGU** shall be required to **Synchronise** will be the specified time and, for each subsequent **CDGU** (if any), shall be as specified in the relevant **Power Station Agreement**.

SDC2B.3 Decreases in **Range Availability**

SDC2B.3.1 If the **Generator** issues a **Range Availability Notice** reducing the level of **Range Availability** of a **Range** with effect from a specified time (the "specified time") to a value which is less than or equal to the maximum capacity of the **Range** (as specified in the relevant **Power Station Agreement**) for the **Load Band** immediately below the **Instructed Load Band**, the **Instructed Load Band** shall be reduced automatically at the specified time to the lowest **Load Band** (as specified in the relevant **Power Station Agreement**) which includes the level of **Range Availability** specified in such **Range Availability Notice**.

SDC2B.3.2 If the **Generator** issues a **Range Availability Notice** reducing the level of **Range Availability** of a **Range**, with effect from a specified time (the "specified time"), to a value (in **MW(e)**) which is less than the aggregate **Despatched Output** (in **MW**) of the **CDGUs** associated with the **Range**, the **Generator** must ensure that the **Range** concerned is capable of maintaining the maximum capacity of the **Instructed Load Band** or, if lower, the **Range Availability** declared for the **Range** until the specified time and must ensure that the **Range** is thereafter capable of providing sufficient **Range Output** to enable the associated **CDGUs** to maintain their aggregate **Output** at the level which would have been achieved if valid **Despatch** instructions had been given requiring the **CDGUs** to **De-Load** with effect from the specified time at their maximum **De-Loading** rates (registered as **GSDPs**) down to an aggregate level of **Output** which, when expressed in **MW(e)**, is equal to the level of **Range Availability** for the **Range** declared in the **Range Availability Notice**.

SDC2B.4 Form of **Despatch** instructions for **Ranges**

Each **Despatch** instruction will, wherever possible, be kept simple, drawing as necessary from the following forms.

SDC2B.4.1 **Despatch** instruction to increase or decrease **Instructed Load Band**

SDC2B.4.1.1 If the time of the **Despatch** instruction is 1400 hours, the **Range** is the 'A' **Range** and it is required to be operating on **Load Band** 3 at 0300 hours on the next following **Schedule Day**, the relevant part of the instruction would be, for example:

"Time 1400 hours. 'A' **Range** to **Load Band** 3 for 0300 hours".

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SDC2B.4.1.2 If the time of the **Despatch** instruction is 1400 hours, the **Range** is the 'A' **Range**, it is required to be operating on **Load Band** 3, and **Generating Units** No 1 and No 2 are required to **Synchronise** at 0630 hours and 0800 hours respectively on the next following **Schedule Day**, the relevant part of the instruction would be, for example:-

> "Time 1400 hours. Unit 1, **Synchronise** at 0630 hours. Unit 2 **Synchronise** at 0800 hours".