SONI Limited

Over-installed Unit Modifications

Grid Code Amendments Consultation Paper

14th September 2017

It is proposed to amend the Grid Code by deleting the text in red strikethrough (~~example~~); and by adding the text in red underlined (example).

GLOSSARY AND DEFINITIONS (GD)

Active Power Control Set-Point Ramp Rate	The rate of increase or decrease of **Active Power Output** of a **PPM** in response to an **Active Power Dispatch Instruction** sent by the **TSO** via SCADA when the **PPM** is operating in an **Active Power** control mode. This ramp rate will be calculated by the **Generator** each time an **Active Power Dispatch Instruction** is sent by the **TSO** via SCADA based on the change in **Active Power** required and the curtailment time interval set point. The **Active Power Dispatch Instruction** shall be any **MW** value up to ~~**Register Capacity**~~ **Maximum Export Capacity** of the **PPM**. The curtailment time interval set point shall be any value in the range 1 to 30 minutes, as specified by the **TSO** via SCADA.
Aggregated Maximum Export Capacity	In the case of a **Generator Aggregator**, the maximum permissible aggregated value (in **MW,** MVA, kW and/or kVA) that can be exported at the **Connection Point** onto the **Transmission System,** or connection point to the **Distribution System,** provided in each **Connection Agreement** (or connection agreement to the **Distribution System**, as the case may be) for the **Generating Units** for which the **Generator Aggregator** is responsible.
Availability	In respect of any period (and, in the case of a **PPA CDGU**, in relation to a **Designated Fuel** and, in the case of a **CDGU** other than a **PPA CDGU**, in relation to a fuel), shall mean: (a) for any **CDGU** or **Controllable PPM** the figure (expressed in **MW** as at the **Connection Point** and at the direct connection with the **Distribution System**) stated in accordance with SDC1.4.1.1(a) to be the capability of the **CDGU** or **Controllable PPM** to generate electricity

during that period. In the case of a **CDGU** or **Controllable PPM** that contains an **ESPS**, **Availability** shall be the figure (expressed in **MW** at the **Connection Point** and at the direct connection with the **Distribution System**) stated in accordance with SDC1.4.1.1(a) to be a combination of capability to generate electricity during that trading period, and the capability to reduce demand during that trading period. In relation to all **CDGUs** including an **Open Cycle Gas Turbine CDGU** and/or a **CCGT Installation**, the **Availability** declared by a **Generator** shall correspond to the maximum generation of electricity which that **Generator's CDGU** can achieve during that period. In relation to all **CDGUs**, the **Availability** declared by a **Generator** shall correspond to the level of generation of electricity up to and including the **Contracted Capacity** (for **PPA CDGUs** other than **PPA Open Cycle Gas Turbines**) or **Contracted Capacity (Peak)** (for **PPA Open Cycle Gas Turbines**) or **~~Registered Capacity~~Maximum Export Capacity** (for non-**PPA** plant) which that **CDGU** can achieve during that period;

(b) for **Demand Side Units**, the **Demand Side Unit MW Capacity** (expressed in **MW** as at the **Connection Point** and at the direct connection with the **Distribution System**) stated in accordance with SDC1.4.1.1(a) to be the capability of the **Demand Side Unit** to reduce **Demand** during that period;

(c) for **Aggregated Generating Units**, the aggregated figures (expressed in **MW** as at the **Connection Points** of each individual **Aggregated Generating Unit**) stated in accordance with SDC1.4.1.1(a) to be the capability of the **Aggregated Generating Units** as a whole to generate electricity during that period;

(d) for an **Interconnector**, the figure (expressed in **MW** at Auchencrosh) stated in accordance with SDC1.4.1.1(a) to be the capability of the **Interconnector** to export or import electricity.

DNO Connection Agreement

The bilateral agreement between the DNO and the **User** connected to or seeking to connect to the **Distribution System, ~~DNO Demand Customer~~**,

	which contains the detail specific to the **User's** ~~**DNO Demand Customer's**~~ connection to the **Distribution System**.
Full Load	Maximum electrical output of a **Generating Unit** or **CCGT Installation** less any **Demand** associated solely with facilitating the operation of that **Generating Unit** and not fed into the network, measured at the **Connection Point** or, in the case of a **Power Park Module**, the maximum electrical output of the **Power Park Module** at the power factor stated in the relevant **Connection Agreement** less any **Demand** associated solely with facilitating the operation of that **Generating Unit** and not fed into the network, measured as at the **Connection Point** of the **Power Park Module** and depending, in the case of a **Generating Unit** which is capable of firing on two different **Designated Fuels**, on which **Designated Fuel** is being used to operate the **Generating Unit** but excluding **Maximum Generation**. In respect of a **PPA CDGU**, the **TSO** may take into account the **Conversion Factors** when **Dispatching** such a **CDGU**.
Fully Available	In relation to a **CDGU** or **Controllable PPM or Dispatchable PPM** (as the case may be) means **Available** to the **CDGU's Contracted Capacity** / ~~**Registered Capacity**~~**Maximum Export Capacity** (**PPA** plant / non-**PPA** plant respectively) (or full output in the case of a **Controllable PPM** or **Dispatchable PPM**). In relation to a **PPA Open Cycle Gas Turbine CDGU**, means **Available** to the **CDGU's Contracted Capacity (Peak)**.
Maximisation	An increase in **MW Output** above the **Contracted Capacity** (for **CDGU**s other than **Open Cycle Gas Turbines**) or **Contracted Capacity (Peak)** (for **PPA Open Cycle Gas Turbines**) or ~~**Registered Capacity**~~**Maximum Export Capacity** (for non-**PPA** plant) up to the level of the **Short Term Maximisation Capability**, and the terms "**Maximise**" and "**Maximised**" shall be construed accordingly.
Maximum Export Capacity	The maximum permissible value (in **MW**, MVA, kW and/or kVA) that can be exported at the **Connection Point** onto the **Transmission System,** or connection point to the **Distribution System,** provided in accordance with the **User's Connection Agreement** (or connection agreement to the **Distribution System**, as the case may be) or **User's**~~**DNO Demand Customer's**~~ **DNO Connection Agreement**.

Maximum Generation	The operation of a **CDGU** to provide an output in excess of **Contracted Capacity** (for **CDGUs** other than **Open Cycle Gas Turbines**) or **Contracted Capacity (Peak)** (for **Open Cycle Gas Turbines** and **PPA CCGTs**) or ~~**Registered Capacity**~~**Maximum Export Capacity** (for non-**PPA** plant).
Maximum Import Capacity	The maximum permissible value~~s~~ (kW and/ or kVA) that can be imported at the **Connection Point** from the **Transmission System,** or connection point to the **Distribution System,** provided in accordance with the **User's Connection Agreement** or ~~**DNO Demand Customer's**~~ **DNO Connection Agreement** respectively.
Ramp Down Rate	The maximum rate of decrease in a **Generating Unit's Output**. The **Ramp Down Rate** applies over the output range from its **Contracted Capacity** (for **PPA CDGUs** other than **PPA Open Cycle Gas Turbines**) or **Contracted Capacity (Peak)** (for **PPA Open Cycle Gas Turbines**) or ~~**Registered Capacity**~~**Maximum Export Capacity** (for non-**PPA** plant) to **Minimum Generation**. The rate of change may not depend upon the initial **Warmth** of the plant but may depend on the **MW Output**. There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Ramp Up Rate	The maximum rate of increase in a **Generating Unit**'s **Output**. This rate of increase continues until the **Generating Unit** reaches the level of output instructed by the control room operator of its **Contracted Capacity** (for **PPA CDGUs** other than **PPA Open Cycle Gas Turbines**) or **Contracted Capacity (Peak)** (for **PPA Open Cycle Gas Turbines**) or ~~**Registered Capacity**~~**Maximum Export Capacity** (for non-**PPA** plant). The rate of increase may not depend upon the initial **Warmth** of the plant but may depend on the **MW Output**. There may be circumstances where more than one parameter applies and this is indicated by adding a number at the end of the parameter.
Registered Capacity	The normal **Full Load** capacity of a **Generating Unit,** less any **Demand** associated solely with facilitating the operation of that **Generating Unit** and not fed into the network, in **MW**, measured as at the **Connection Point** and in relation to a **Power Park Module,** the normal **Full Load** capacity of the collection of one or more generators, each being a **Generating Unit,** less

	any **Demand** associated solely with facilitating the operation of that **Generating Unit** and not fed into the network, in **MW**, measured as at the **Connection Point** of the **Power Park Module**. Can be up to 120% of the **Maximum Export Capacity.**
Short Term Maximisation Capability	The capability of a **Generating Unit** to deliver, for a limited duration of time, **MW Output** greater than its **Contracted Capacity** (for **PPA CDGU**s other than **Open Cycle Gas Turbines or CCGT**s) or **Contracted Capacity (Peak)** (for **PPA Open Cycle Gas Turbines** and **PPA CCGT**s) or ~~**Registered Capacity**~~**Maximum Export Capacity** (for non-**PPA** plant).
Within-Day Test	A **Test** with a total duration of less than 6 hours in any **Trading Day**, where the **Active Power** produced during the total duration of the test is less than: (i) 3 times the **Active Power** which would be produced by the **Plant** undergoing a **Test** during 1 hour of operation at the **Plant's** ~~**Registered Capacity**~~**Maximum Export Capacity**; or (ii) 500MWh

PLANNING CODE

PC.A2.3.2 **Power Station** Data Requirements

(a) Point of connection to the **Transmission System** in terms of geographical and electrical location and system voltage.

(b) Capacity of **Power Station** (being an aggregate of all **Generating Units** in the **Power Station**) in **MW** sent out for **Registered Capacity, Minimum Generation** (which in the case of **PPMs** shall be assumed to be zero unless a different value is notified by the **User**), **Maximum Export Capacity** (in **MW**, MVA, kW and/or kVA) and, where relevant, **Maximum Generation.**

(c) In the case of **Wind Farm Power Stations that are Controllable PPMs** or **Dispatchable PPMs**, a diagram that shows for the **Wind Farm Power Station** wind speed and direction against electrical output in **MW**, in "rose" format**.**

(d) In the case of **Controllable PPMs** or **Dispatchable PPMs** that are not **WFPS**, an equivalent diagram to that in PC.A2.3.2(c), in relation to the input resource of that **PPM**.

(e) Maximum auxiliary **Demand** (**Active Power** and **Reactive Power**).

(f) Where **Generating Units** form part of a **User's System**, the output from these units is to be taken into account by the **User** in his **Demand** profile submissions to the **TSO**. In such cases the **User** must inform the **TSO** of the number of such **Generating Units** together with their total capacity. On receipt of such data the **User** may be further required, at the **TSO's** discretion, to provide details of the **Generating Units** together with their energy output profile.

(g) Operating regime of **Generating Units** not subject to **Central Despatch** (e.g. continuous, intermittent, peak-lopping).

PC.A2.3.3 **Generating Unit** Data Requirements

In relation to **Generating Units** other than the generators comprised within a **PPM**:

(a) Prime mover type;

(b) **Generating Unit** type;

(c) **Generating Unit** rating and terminal voltage (MVA & kV);

(d) **Generating Unit** rated power factor;

(e) **Registered Capacity** sent out (**MW**);

(f) **Maximum Generation** and **Minimum Generation** capability sent out (**MW** sent out);

(g) **Reactive Power** capability (both leading and lagging) at the lower voltage terminals of the **Generator Transformers** for **Maximum Generation**, normal full **Load** and normal minimum **Load**;

(h) Maximum auxiliary **Demand** in **MW** and **MVAr**;

(i) Inertia constant (**MW** sec/MVA);

(j) Short circuit ratio;

(k) Direct axis transient reactance;

(l) Direct axis sub-transient time constant;

(m) **Generator Transformer** rated MVA, positive sequence reactance, and tap change range;

(n) **Sustained Load Diagram**; ~~and~~

(o) a list of the **CCGT Modules** in the **CCGT Installation**, identifying each **CCGT Module**, and the **CCGT Installation** of which it forms part unambiguously, together with any other information which may be relevant in relation to the **CCGT Modules** and **CCGT Installations** and their operation~~.~~; and

(p) **Maximum Export Capacity** (in **MW**, MVA, kW and/or kVA)

In relation to the generators comprised within a **PPM**, such data equivalent to that listed in PC.A2.3.3(a) to PC.A2.3.3(n) as the **TSO** shall reasonably require.

PC.B2.2.1 **Power Station** Data Requirements

(a) Capacity of **Power Station** (being an aggregate of all **Generating Units** in the **Power Station**) in **MW** sent out for **Registered Capacity, Minimum Generation** (which in the case of **PPMs** shall be assumed to be zero unless a different value is notified by the **User**) , **Maximum Export Capacity** (in **MW**, MVA, kW and/or kVA) and, where relevant, **Maximum Generation.**

(b) In the case of **Wind Farm Power Stations** that are **Controllable PPMs** or **Dispatchable PPMs**, a diagram that shows for the **Wind Farm Power Station** wind speed and direction against electrical output in **MW**, in "rose" format**.**

(c) In the case of **Controllable PPMs or Dispatchable PPMs** that are not **WFPS**, a diagram equivalent to that in (b), in relation to the input resource of that **PPM.**

(d) Maximum auxiliary **Demand** (**Active Power** and **Reactive Power**).

(e) Operating regime of **Generating Units** not subject to **Central Despatch** (e.g. continuous, intermittent, peak-lopping).

PC.B2.2.2 **Generating Unit** Data Requirements

In relation to **Generating Units** other than the generators comprised within a **PPM**:

(a) Prime mover type;

(b) **Generating Unit** type;

(c) **Generating Unit** rating and terminal voltage (MVA & kV);

(d) **Generating Unit** rated power factor;

(e) **Registered Capacity** sent out (**MW**);

(f) **Maximum Generation** and **Minimum Generation** capability sent out (**MW** sent out);

(g) **Reactive Power** capability (both leading and lagging) at the lower voltage terminals of the **Generator Transformers** for **Maximum Generation**, normal full **Load** and normal minimum **Load**;

(h) Maximum auxiliary **Demand** in **MW** and **MVAr**;

(i) Inertia constant (**MW** sec/MVA);

(j) Short circuit ratio;

(k) Direct axis transient reactance;

(l) Direct axis sub-transient time constant;

(m) **Generator Transformer** rated MVA, positive sequence reactance, and tap change range;

(n) **Sustained Load Diagram**; ~~and~~

(o) a list of the **CCGT Modules** in the **CCGT Installation**, identifying each **CCGT Module**, and the **CCGT Installation** of which it forms part unambiguously, together with any other information which may be relevant in relation to the **CCGT Modules** and **CCGT Installations** and their operation~~.~~; and

(p) **Maximum Export Capacity** (in **MW**, MVA, kW and/or kVA)

In relation to the generators comprised within a **PPM**, such data equivalent to that listed in PC.B2.2.2(a) to PC.B2.2.2(n) as the **TSO** shall reasonably require.

CONNECTION CONDITIONS SCHEDULE 1

PART I

TECHNICAL CRITERIA FOR GENERATING UNITS CONNECTED TO THE TRANSMISSION SYSTEM OTHER THAN THOSE COMPRISED WITHIN PPMS

CC.S1.1.3 **Generating Plant** Performance Requirements

CC.S1.1.3.1 For **Generating Units** not subject to **Central Dispatch** the electrical parameters required to be achieved at the **Generator Terminals** shall be specified by the **TSO** in the **Connection Agreement** or in a **Request for Proposal**, as the case may be.

CC.S1.1.3.2 For **CDGUs** and for **CCGT Installations** (in relation to the **CCGT Modules** therein) the **Reactive Power** capability shall as a minimum be:

(i) rated power factor (lagging) = 0.8;

(ii) rated power factor (leading) = 0.95; and

(iii) short circuit ratio not less than 0.5.

CC.S1.1.3.3 For **CDGUs** and **CCGT Installations** the minimum connected impedance applicable to the generator and **Generator Transformer** will be specified in the **Connection Agreement**. The **TSO**'s requirements for the impedances will reflect the needs of the **Transmission System** from the fault level and stability points of view.

CC.S1.2.3.4 A **Generating Unit** must be capable of continuously supplying its ~~**Registered Capacity**~~**Maximum Export Capacity** at a stable **Output** within the **System Frequency** range 49.5 Hz to 50.5 Hz. Within the **Frequency** range 49.5 Hz to 50.5 Hz there must be no reduction in **Output** whilst **Frequency** is falling. Any decrease in **Output** whilst **Frequency** is falling to a level below ~~**Registered Capacity**~~**Maximum Export Capacity** occurring in the **Frequency** range 49.5 Hz to 47 Hz must not be more than pro rata with any decrease below nominal **Frequency**.

PART II

TECHNICAL CRITERIA FOR GENERATING UNITS CONNECTED TO THE DISTRIBUTION SYSTEM OTHER THAN THOSE COMPRISED WITHIN PPMS

CC.S1.2.3 **Generating Plant** Performance Requirements

CC.S1.2.3.1 A **Generating Unit** must be capable of continuously supplying its ~~**Registered Capacity**~~**Maximum Export Capacity** at a stable **Output** within the **System Frequency** range 49.5 Hz to 50.5 Hz. Within the **Frequency** range 49.5 Hz to 50.5 Hz there must be no reduction in **Output** whilst **Frequency** is falling. Any decrease in **Output** whilst **Frequency** is falling to a level below ~~**Registered Capacity**~~**Maximum Export Capacity** occurring in the **Frequency** range 49.5 Hz to 47 Hz must not be more than pro rata with any decrease below nominal **Frequency**.

CONNECTION CONDITIONS SCHEDULE 2

PART I

TECHNICAL CRITERIA FOR PPMS CONNECTED TO THE TRANSMISSION SYSTEM

CC.S2.1.3.7 **Ramp Rates**

(a) The **PPM** control system shall be capable of controlling the ramp rate of its **Active Power Output**. There shall be three ramp rate capabilities designated, **Resource Following Ramp Rate, Active Power Control Set-Point Ramp Rate** and **Frequency Response Ramp Rate**. The **PPM** control system shall operate the ramp rates with the following order of priority (high to low): **Frequency Response Ramp Rate**; **Active Power Control Set-Point Ramp Rate**; **Resource Following Ramp Rate**. It shall be possible to vary the **Resource Following Ramp Rate** over a range between 1% and 100% of ~~**Registered Capacity**~~**Maximum Export Capacity** per minute. The ramp rate is the average rate of change in **Output** measured over any 10 minute period. The ramp rate averaged over 1 minute should not exceed 3 times the average ramp rate over 10 minutes.

PART II

TECHNICAL CRITERIA FOR PPMS CONNECTED TO THE DISTRIBUTION SYSTEM

CC.S2.2.3.4 **Ramp Rates**

(a) The **PPM** control system shall be capable of controlling the ramp rate of its **Active Power Output**. There shall be three ramp rate capabilities designated, **Resource Following Ramp Rate, Active Power Control Set-Point Ramp Rate** and **Frequency Response Ramp Rate**. The **PPM** control system shall operate the ramp rates with the following order of

priority (high to low): **Frequency Response Ramp Rate**; **Active Power Control Set-Point Ramp Rate**; **Resource Following Ramp Rate**. It shall be possible to vary the **Resource Following Ramp Rate** over a range between 1% and 100% of ~~**Registered Capacity**~~**Maximum Export Capacity** per minute. The ramp rate is the average rate of change in **Output** measured over any 10 minute period. The ramp rate averaged over 1 minute should not exceed 3 times the average ramp rate over 10 minutes.

OPERATING CODE NO. 2

OPERATIONAL PLANNING

OC2.9.3 For each **CCGT Module**, and any other **Generating Unit** whose performance varies significantly with ambient temperature, the **Generator Performance Chart** shall show curves for at least two values of ambient temperature so that the **TSO** can assess the variation in performance over all likely ambient temperatures by a process of linear interpolation or extrapolation. One of these curves shall be for the ambient temperature at which the **Generating Unit's Output**, or **CCGT Installation's Output**, as appropriate, equals its ~~**Registered Capacity**~~**Maximum Export Capacity**.

OC3 APPENDIX

OC3.A.1 **Operating Reserve** to **Frequency** Change

To be given in a tabular form, describing **Primary Operating Reserve, Secondary Operating Reserve, Tertiary Operating Reserve band 1** and **Tertiary Operating Reserve band 2** at different levels of **Load**, ranging from **Minimum Generation** to ~~**Registered Capacity**~~**Maximum Export Capacity**.

SCHEDULING AND DISPATCH CODE NO.1

UNIT SCHEDULING

SDC1.4.3.3 SDC1.4.3.2 shall not apply to the extent:

(a) it would require the **Generator** or, where relevant, the **Generator Aggregator** to declare levels or values better than the ~~**Registered Capacity**~~**Maximum Export Capacity** and **Technical Parameters** as submitted under the **Planning Code** in respect of a **CDGU**, a **Controllable PPM** and/or an **Aggregated Generating Unit**;

SDC1 – APPENDIX A

Part 1. Technical Parameters

Technical Parameter	CDGU				Control PPM	DSU		Agg. Gen		ESPS Demand	Pump Storage Demand
	Thermal	Hydr/ En Ltd	Disp. PPM	Pump S Gen	-	Indiv. Demand Site	Agg. Demand Sites			-	-
Block Load Cold	✓	✓	✓	✓	✓						
Block Load Hot	✓										
Block Load Warm	✓										
Charging Capacity			✓ ESPS Gen Only							✓	
Demand Side Unit Energy Profile						✓	✓				
Deload Break Point	✓	✓	✓	✓	✓						
Demand Side Unit MW Availability						✓	✓				
Demand Side Unit MW Response Time						✓	✓				
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			✓ ESPS Gen Only	✓						✓	✓
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)	✓										

Technical Parameter	CDGU				Control PPM	DSU		Agg. Gen		ESPS Demand	Pump Storage Demand
	Thermal	Hydr/ En Ltd	Disp. PPM	Pump S Gen	-	Indiv. Demand Site	Agg. Demand Sites			-	-
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 Charge Capacity			✓ ESPS Gen Only							✓	
Maximum Down Time						✓	✓				
Maximum Generation / Registered Capacity / Maximum Export Capacity	✓	✓	✓	✓	✓						
Maximum On Time	✓	✓	✓	✓	✓						
Maximum Storage Capacity				✓							
Minimum Charge Capacity			✓ ESPS Gen Only							✓	
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	✓	✓	✓	✓	✓			✓			

Technical Parameter	CDGU				Control PPM	DSU		Agg. Gen		ESPS Demand	Pump Storage Demand
	Thermal	Hydr/ En Ltd	Disp. PPM	Pump S Gen	-	Indiv. Demand Site	Agg. Demand Sites			-	-
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 Charge Level Percentage			✓ ESPS Gen Only							✓	
Target Reservoir Level Percentage				✓							✓
Start of Restricted Range 1	✓	✓	✓	✓	✓						
End of Restricted Range 1	✓	✓	✓	✓	✓						
Start of Restricted Range 2	✓	✓	✓	✓	✓						
End of Restricted Range 2	✓	✓	✓	✓	✓						

Part 2. Additional data items required in an Additional Grid Code Characteristics Notice

Variable	Applies to

Variable	**Applies to**
Time from initiation of a start to achieving **Dispatched Load**	**CDGUs** which are **Open Cycle Gas Turbines** or **CCGTs**
Governor Droop	All **CDGUs**, except **Aggregated Generating Units**
Sustained Response Capability	All **PPA CDGUs**
The maximum reserve capability for each category of reserve	All non-**PPA CDGUs**, except **Aggregated Generating Units**
Two shifting limitation (limitation on the number of **Start-ups** per **Trading Day**)	All **CDGUs**, except **Aggregated Generating Units**
The **MW** and **Mvar** capability limits within which the **CDGU** is able to operate as shown in the relevant **Generator Performance Chart**	All **CDGUs**, except **Aggregated Generating Units**
Maximum number of on **Load** cycles per 24 hour period, together with the maximum **Load** increases involved	All **CDGUs**, except **Aggregated Generating Units**
^Maximum number of changes to the **Dispatched Fuel** per 24 hour period	All **CDGUs**, except **Aggregated Generating Units**
Maximum quantity of oil in “ready-use tanks” and associated pipework	All **CDGUs**, except **Aggregated Generating Units**
^Maximum number of changes to the **Designated Fuel** per 24 hour period	All **CDGUs**, except **Aggregated Generating Units**
^Minimum notice to change the **Designated Fuel**.	All **CDGUs**, except **Aggregated Generating Units**
Settings of the **Unit Load Controller** for each **CDGU** for which a **Unit Load Controller** is required under CCS1.5.5 of the **SONI Grid Code**	All **CDGUs**, except **Aggregated Generating Units**
Time between **De-Synchronising** different **CDGUs** in a Power Station which, in the case of Coolkeeragh Power Station only, shall be	All **CDGUs**, except **Aggregated Generating Units**

Variable	Applies to
stated for both paired and single **CDGUs**.	

DATA REGISTRATION CODE

SCHEDULE 1

DATA REGISTRATION CODE

GENERATING UNIT AND POWER STATION TECHNICAL DATA

POWER STATION NAME: DATE:

DATA DESCRIPTION	UNITS	DATA CAT.	**GENERATING UNIT** OR **POWER STATION** DATA							
			G1	G2	G3	G4	G5	G6	G7	STN
GENERAL **POWER STATION** DATA Point of connection to the **NI System** in terms of geographical and electrical location and **System** voltage	-	**SPD**	-	-	-	-	-	-	-	
Capacity of **Power Station** in **MW** sent out for **R.C., Min. Gen.** (assumed to be zero in the case of **PPMs** unless a different value is notified by the User), **Maximum Export Capacity** (in **MW**, MVA, kW and/or kVA) and, where relevant **Max. Gen.**	**MW**	**SPD**	-	-	-	-	-	-	-	
In the case of **Wind Farm Power Stations** that are **Controllable PPMs** or **Dispatchable PPMs**, a diagram that shows for the **Wind Farm Power Station** wind speed and direction against electrical output in **MW**, in "rose" format.		**SPD**								
In the case of **Controllable PPMs or Dispatchable PPMs** that are not **WFPS**, an equivalent diagram relating to the input resource of that **PPM**.										
Maximum auxiliary **Demand (Active Power** and **Reactive Power)**	**MW** **Mvar**	**SPD** **SPD**	- -	- -	- -	- -	- -	- -	- -	
Where **Generating Units** form part of a **User's System**, the number of such **Units** together with their total capacity. If required by the **TSO**, details of the **Generating Units** together with their energy output profile.		**SPD**								
Operating regime of **Generating Units** not subject to **Central Dispatch** (e.g. continuous, intermittent, peak lopping).		**SPD**								
GENERAL **GENERATING UNIT** DATA Prime mover type		**SPD**								-
Generating Unit type	MVA	**SPD**								
Generating Unit rating and terminal voltage	KV									-
Generating Unit rated power factor		**SPD**								-
Registered Capacity sent out	**MW**	**SPD**								-
Max.Gen. and **Min.Gen.** capability sent out	**MW**	**SPD**								-
Maximum Export Capacity	**(MW,**									

DATA DESCRIPTION	UNITS	DATA CAT.	**GENERATING UNIT** OR **POWER STATION** DATA							
			G1	G2	G3	G4	G5	G6	G7	STN
	MVA, kW and/or kVA)									
Reactive Power capability (both leading and lagging) at the lower voltage terminals of the **Generator Transformer** for **Max.Gen.,** normal **Full Load** and normal minimum **Load**.	**Mvar**	**SPD**								-
Maximum Auxiliary **Demand**	**MW** **Mvar**	**SPD**								
Inertia constant	**MW** sec MVA	**SPD**								

ABBREVIATIONS:

SPD	=	**Standard Planning Data**	**DPD**	=	**Detailed Planning Data**
Min Gen	=	**Minimum Generation**	**Max Gen**	=	**Maximum Generation**
% on MVA	=	& on Rated MVA	**RC**	=	**Registered Capacity**
% on 100	=	% on 100 MVA	**OC1,SDC1,**etc=		**Grid Code** for which data is required

SCHEDULE 2

DATA REGISTRATION CODE

GENERATION PLANNING PARAMETERS, RESPONSE CAPABILITY DATA AND SDC1 DATA

Part 1 of this schedule contains the **CDGU and Controllable PPM** or **Dispatchable PPMs 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, Energy Storage Power Station Demand, Interconnectors**, **Interconnector Units**, **Demand Side Units**, **Aggregated Generating Units** and/or **Controllable PPM** 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										

DATA DESCRIPTION	UNITS	DATA CAT.	**GENERATING UNIT** OR **POWER STATION** DATA							
			G1	G2	G3	G4	G5	G6	G7	STN
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 PPMs** or **Dispatchable PPMs**										
The minimum time to connect/reconnect the **Controllable PPM** or **Dispatchable PPM** (or part thereof) to the **NI System** following a **Dispatch** instruction		OC2								
The minimum time to connect/reconnect the **Controllable PPM** or **Dispatchable PPM** (or part thereof) to the **NI System** automatically following a trip of the **Controllable PPM** or **Dispatchable PPM** (or part thereof) that does not cause damage to the **Controllable PPM** or **Dispatchable PPM** (or part thereof)		OC2								
The maximum rate at which Load can be increased following connection of the **Controllable PPM** or **Dispatchable PPM** (or part thereof) to the **NI System**		OC2								
The minimum fault level or voltage at the **Connection Point** below which the **Controllable PPM** or **Dispatchable PPM** 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**~~**Maximum Export Capacity** **Governor Droop** Characteristics	Table	OC3								-

DATA DESCRIPTION	UNITS	DATA CAT.	**GENERATING UNIT** OR **POWER STATION** DATA							
			G1	G2	G3	G4	G5	G6	G7	STN
Governor Droop										
Unit Control Options	%	OC3								
Maximum Droop										
Normal Droop	%	OC3								
Minimum Droop	%	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, Energy Storage Power Station Demand, Interconnector**, **Interconnector Units** (only in relation to paragraph 6 below), **Demand Side Unit**, **Aggregated Generating Unit** and/or **Controllable PPM**. 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, Energy Storage Power Station Demand, Interconnectors**, **Demand Side Units**, **Aggregated Generating Units** and/or **Controllable PPM**.

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**.

2. **Technical Parameters**

For each **CDGU**, **Controllable PPM**, **Dispatchable PPM**, **Demand Side Unit**, **Aggregated Generating Unit, Energy Storage Power Station Demand** and **Pumped Storage Plant Demand**, the **Technical Parameters** listed in the table set out in Appendix A to SDC1 and copied below. The factors applicable to a particular **Plant** are indicated with a tick.

Technical Parameter	**CDGU**				**Control PPM**	**DSU**		**Agg. Gen**		**ESPS Demand**	**Pump Storage Demand**
	Thermal	**Hydr/ En Ltd**	**Disp. PPM**	**Pump S Gen**	**-**	**Indiv. Demand Site**	**Agg.Demand Sites**			**-**	**-**
Block Load Cold	✓	✓	✓	✓	✓						
Block Load Hot	✓										
Block Load Warm	✓										
Charging Capacity			✓ ESPS Gen Only							✓	
Demand Side Unit Energy Profile						✓	✓				

Technical Parameter	CDGU				Control PPM	DSU		Agg. Gen		ESPS Demand	Pump Storage Demand
	Thermal	Hydr/ En Ltd	Disp. PPM	Pump S Gen	-	Indiv. Demand Site	Agg.Demand Sites			-	-
Deload Break Point	✓	✓	✓	✓	✓						
De-Loading Rate 1	✓	✓	✓	✓	✓						
De-Loading Rate 2	✓	✓	✓	✓	✓						
Dwell Time 1	✓	✓	✓	✓	✓						
Dwell Time 2	✓	✓	✓	✓	✓						
Dwell Time 3	✓	✓	✓	✓	✓						
Dwell Time Trigger Point 1	✓	✓	✓	✓	✓						
Dwell Time Trigger Point 2	✓	✓	✓	✓	✓						
Dwell Time Trigger Point 3	✓	✓	✓	✓	✓						
End Point of Start Up Period	✓	✓	✓	✓	✓						
Energy Limit		✓									
Energy Limit Factor		✓									
Energy Limit Start		✓									
Energy Limit Stop		✓									
Forecast Minimum Output Profile			✓ ESPS Gen Only	✓						✓	✓
Forecast Minimum Generation Profile	✓	✓	✓	✓		✓	✓				
Initial Demand Side Unit Response Time						✓	✓				
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 Charge Capacity			✓ ESPS Gen Only							✓	

Technical Parameter	CDGU				Control PPM	DSU		Agg. Gen		ESPS Demand	Pump Storage Demand
	Thermal	Hydr/ En Ltd	Disp. PPM	Pump S Gen	-	Indiv. Demand Site	Agg.Demand Sites			-	-
Maximum Down Time						✓	✓				
Maximum Generation / Registered Capacity / Maximum Export Capacity	✓	✓	✓	✓	✓						
Maximum On Time	✓	✓	✓	✓	✓						
Maximum Storage Capacity				✓							
Minimum Charge Capacity			✓ ESPS Gen Only							✓	
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)	✓										

Technical Parameter	CDGU				Control PPM	DSU		Agg. Gen		ESPS Demand	Pump Storage Demand
	Thermal	Hydr/ En Ltd	Disp. PPM	Pump S Gen	-	Indiv. Demand Site	Agg.Demand Sites			-	-
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 Charge Level Percentage			✓ ESPS Gen Only							✓	
Target Reservoir Level Percentage				✓							✓
Start of Restricted Range 1	✓	✓	✓	✓	✓						
End of Restricted Range 1	✓	✓	✓	✓	✓						
Start of Restricted Range 2	✓	✓	✓	✓	✓						
End of Restricted Range 2	✓	✓	✓	✓	✓						

Users should also refer to SDC1.4.5.2 for the submission of revised **Technical Parameters** data.

SCHEDULE 3

DATA REGISTRATION CODE

GENERATING UNIT/POWER STATION EQUIPMENT/INTERCONNECTOR OUTAGES

Power Station/Interconnector name .....
Generating Unit number .....
Registered Capacity .....
Maximum Export Capacity .....

PART 1 - GENERATING PLANT/POWER STATION EQUIPMENT/INTERCONNECTOR OUTAGE PROGRAMMES

CDGU (AND/OR CCGT MODULE, AS PROVIDED IN OC2)/ CONTROLLABLE PPM/ DISPATCHABLE PPM/ POWER STATION EQUIPMENT/ INTERCONNECTOR OUTAGE PROGRAMMES	UNITS	TIME COVERED	UPDATE TIME	DATA CAT.
(**Note:** References to **CCGT Installations** include **CCGT Modules** as provided in OC2) Indicative Term Operational Planning: Planning for years 4 to 7 ahead				
Suggested **Indicative Outage Programme** containing:		Year 7	By end March	OC2

CDGU (AND/OR CCGT MODULE, AS PROVIDED IN OC2)/ CONTROLLABLE PPM/ DISPATCHABLE PPM/ POWER STATION EQUIPMENT/ INTERCONNECTOR OUTAGE PROGRAMMES	UNITS	TIME COVERED	UPDATE TIME	DATA CAT.
(i) identity of the **CDGUs** (or, in the case of a **CCGT Installation**, **CCGT Module(s)** therein), **Controllable PPMs, Dispatchable PPM** (or **Generating Unit(s)** therein) **Power Station Equipment** and/or **Interconnector** concerned;				
(ii) **MW** concerned (i.e. which will not be **Available** as a result of the **Outage** and that which will still be **Available**);	**MW**			
(iii) duration of **Outage**;	weeks			
(iv) preferred **Start Date** and **Start Time**;	date/ time			
(v) whether **Flexible** or **Inflexible**;				
(vi) if **Flexible**:				
(a) period by which **Outage** may be deferred;	days			
(b) period by which **Outage** may be advanced; (vii) if the **Outage** is required to enable the **Generator** or **Interconnector Owner** to comply with statutory obligations and, in such case, the latest date by which the **Outage** must be taken.	days			
(**Note:** References to **CCGT Installations** include **CCGT Modules** as provided in OC2)				
Long Term Operational Planning: Planning for years 2 & 3 ahead				
Suggested **Provisional Outage Programme** containing:		Year 3	By end March	OC2
(i) identity of the **CDGUs** (or, in the case of a **CCGT Installation**, **CCGT Module(s)** therein), **Controllable PPMS** or **Dispatchable PPMs** (or **Generating Unit(s)** therein) **Power Station Equipment** and/or **Interconnector** concerned;				
(ii) **MW** concerned (i.e. which will not be **Available** as a result of the **Outage** and that which will still be **Available**);	**MW**			
(iii) duration of **Outage**;	weeks			
(iv) preferred **Start Date** and **Start Time**;	date/ time			
(v) whether **Flexible** or **Inflexible**;				
(vi) if **Flexible**:				
(a) period by which **Outage** may be deferred;	days			
(b) period by which **Outage** may be advanced;	days			
(vii) if the **Outage** is required to enable the **Generator** or **Interconnector Owner** to comply with statutory obligations and, in such case, the latest date by which the **Outage** must be taken.				
(The **TSO's** response as detailed in OC2		Year 3	By end Sept.	OC2)
(**Generators'** responses to changes suggested by the **TSO** and resolution of any disputes as set out in OC2		Year 3	By end Oct.	OC2)
Up-dated suggested **Provisional Outage Programme** containing:		Year 2	By end March	OC2
(i) identity of the **CDGUs** (or, in the case of a **CCGT Installation**, **CCGT Module(s)** therein),**Controllable PPMs** or **Dispatchable PPMs** (or **Generating Unit(s)** therein) **Power Station Equipment** and/or **Interconnector** concerned;				
(ii) **MW** concerned (i.e. which will not be **Available** as a result of	**MW**			

CDGU (AND/OR CCGT MODULE, AS PROVIDED IN OC2)/ CONTROLLABLE PPM/ DISPATCHABLE PPM/ POWER STATION EQUIPMENT/ INTERCONNECTOR OUTAGE PROGRAMMES	UNITS	TIME COVERED	UPDATE TIME	DATA CAT.
the **Outage** and that which will still be **Available**);				
(iii) duration of **Outage**;	weeks			
(iv) preferred **Start Date** and **Start Time**;	date/ time			
(v) whether **Flexible** or **Inflexible**;				
(vi) if **Flexible**:				
(a) period by which **Outage** may be deferred;	days			
(b) period by which **Outage** may be advanced.	days			
(vii) if the **Outage** is required to enable the **Generator** or **Interconnector Owner** to comply with statutory obligations and, in such case, the latest date by which the **Outage** must be taken.				
(the **TSO's** response as detailed in OC2		Year 2	By end Sept.	OC2)
(**Generators'** and **Interconnector Owner's** responses to the **TSO's** changes and resolution of any disputes as set out in OC2		Year 2	By end Oct	OC2)
Medium Term Operational Planning: Planning for Year 1 ahead				
Suggested **Final Outage Programme** containing:		Year 1	By end March	OC2
(i) identity of the **CDGUs** (or, in the case of a **CCGT Installation**, **CCGT Module(s)** therein), **Controllable PPMs** or **Dispatchable PPMs** (or **Generating Unit(s)** therein) **Power Station Equipment** and/or **Interconnector** concerned;	**MW**			
(ii) **MW** concerned (i.e. which will not be **Available** as a result of the **Outage** and that which will still be **Available**);				
(iii) duration of **Outage**;	weeks			
(iv) preferred **Start Date** and **Start Time**;	date/ time			
(v) whether **Flexible** or **Inflexible**;				
(vi) if **Flexible**:				
(a) period by which **Outage** may be deferred;	days			
(b) period by which **Outage** may be advanced.	days			
(vii) if the **Outage** is required to enable the **Generator** or **Interconnector Owner** to comply with statutory obligations and, in such case, the latest date by which the **Outage** must be taken.				
(the **TSO's** response as detailed in OC2			By end June	OC2)
(**Generators'** or **Interconnector Owners'** responses to the **TSO's** changes and resolution of any disputes as set out in OC2			By end July	OC2)
(The **TSO** to notify **Generators** of any further changes required as detailed in OC2			By end Sept.	OC2)
Short Term Operational Planning : Planning for Year 0				
During Year 0, OC2 requires notices to be given in respect of the following (the details of which can be found in OC2):	-	Year 0	-	OC2
(i) movements of **Flexible Planned Outages** - on not less than 7 days' notice by the **TSO**;				

CDGU (AND/OR CCGT MODULE, AS PROVIDED IN OC2)/ CONTROLLABLE PPM/ DISPATCHABLE PPM/ POWER STATION EQUIPMENT/ INTERCONNECTOR OUTAGE PROGRAMMES	UNITS	TIME COVERED	UPDATE TIME	DATA CAT.
(ii) amendments to **Planned Outages** - request to be made by the **TSO** by notice in writing;				
(iii) substitution of a different **CDGU** and/or **Generating Unit(s)** within a **Controllable PPM**, **Dispatchable PPM** for an **Outage** - request to be made by the **Generator** by notice in writing;				
(iv) **Short Term Planned Maintenance Outages** - to be requested by **Generators** or **Interconnector Owners** by not less than 7 days' notice in writing, containing the following information:				
(a) identity of the **CDGU(s),** (or, in the case of a **CCGT Installation**, **CCGT Module(s)** therein), **Controllable PPMs** or **Dispatchable PPMs** (or **Generating Unit(s)** therein) **Power Station Equipment** and/or **Interconnector** concerned;				
(b) **MW** concerned (i.e. **MW** which would not be **Available** as a result of the **Outage** and that which would still be **Available**);	**MW**			
(c) duration of **Outage** (not exceeding 72 hours);	hours			
(d) preferred **Start Date** & **Start Time**;	date/time			
(e) if the **Outage** is required for maintaining the brush gear of a **CDGU** (or, in the case of a **CCGT Installation**, **CCGT Module(s)** therein) and/or a **Controllable PPM** or **Dispatchable PPM** (or **Generating Unit(s)** therein)				
(The **TSO** will respond to a request for a **STPMO** in accordance with OC2)				
(v) **Notified Unplanned Outages** - to be notified by a **Generator** as early as possible;				OC2
(vi) **24 Hour Recall** (in relation to a **Notified Unplanned Outage**) to be requested by the **TSO** and, if agreed to by the **Generator** or **Interconnector Owner**, acknowledged by the **Generator** or **Interconnector Owner** by notice in writing;				OC2
(vii) **Forced Outages** - to be notified by the **Generator** or **Interconnector Owner** in writing, not later than 48 hours after the event, such notice to include the **Generator's** best estimate of the date and time by which the **CDGU/Controllable PPM/Dispatchable PPM/Power Station Equipment/Interconnector** is likely to have been repaired and restored to its full level of **Availability**;	date & time			OC2
(viii) Release of **CDGUs/Controllable PPM/Dispatchable PPM/Power Station Equipment/Interconnector** for **Outage** – the **TSO**'s express formal consent required (see Schedule 8);				OC2
(ix) Return to service from **Outage** to be notified by the **Generator** or **Interconnector Owner** to the **TSO**;				OC2
(x) Overruns of **Outages** to be notified by the **Generator** or **Interconnector Owner** to the **TSO** immediately the **Generator** or **Interconnector Owner** becomes aware of the situation in writing, such notice to include:				
(a) the reason for the delay; and				
(b) the **Generator's** or **Interconnector Owner's** best estimate of the date and time of return to service.	date & time			