GCRP / JGCRP Member Roles & Responsibilities Training Development

Understanding the Grid Code: Your Role in Shaping the Future

2026

AGENDA

- Welcome & purpose of the session
- Overview of the Grid Codes
- Purpose of the Grid Code Review Panels (GCRPs)
- Member roles & responsibilities
- Grid Code modification process
- Additional guidance and key considerations
- Q&A

Welcome and Purpose of the Session

What are the Grid Codes

What is the GCRP/JGCRP

Your role on the GCRP/JGCRP

EirGrid SONI

GCRP/JGCRP 2026 Provisional dates

Date	Meeting type
26th March	Online meeting
25th June	In-person meeting
24th September	In-person meeting
December **(TBC)**	Online meeting

Background: Electricity Regulation Act 1999 (EirGrid)

PART V

Access to Transmission and Distribution Systems

33. Preparation of grid code and distribution code.

"grid code" means a code in respect of all technical aspects relating to connection to and operation of the transmission system prepared by the Board under *section 33*;

PART V

Access to Transmission and Distribution Systems

33.—(1) Subject to *subsection (2)*, within such time and following such consultation as the Commission may direct, the Board shall make regulations, subject to the approval of the Commission, setting out a grid code in relation to the transmission system of the Board and a distribution code in relation to the distribution system of the Board.

Preparation of grid code and distribution code.

(2) The Commission may from time to time give directions to the Board in respect of—

(*a*) the matters to be specified in the grid code and the distribution code, and

(*b*) the review and revision by the Board from time to time of the grid code and the distribution code,

and the Board shall comply with directions given by the Commission under this section.

(4) The Board shall not be required under *subsection (1)* to enter into an agreement where— Pt.V S.34

(*a*) it has demonstrated to the satisfaction of the Commission that it is not in the public interest to provide additional capacity to meet the requirements to be imposed by that agreement,

(*b*) to enter into an agreement under this section would be likely to involve the Board:

(i) in a breach of this Act;

(ii) in a breach of regulations made under this Act;

(iii) in a breach of the grid code or distribution code; or

(iv) in a breach of the conditions of any licence or authorisation granted to the Board under this Act,

or

(*c*) the person making the application does not undertake to be bound by the terms of the grid code or distribution code in so far as those terms are applicable to that person.

The Electricity (Northern Ireland) Order 1992 (the Order)

Amongst other matters, the Order establishes the legal basis for the licence granted to SONI for the Transmission of Electricity

2. Conditions of the Licence

The Licence shall, in accordance with Article 11(1) of the Order, include the conditions attached hereto at the time of this grant (as such conditions may subsequently be modified in accordance with Article 14, Article 17, Article 17A or Article 18 of the Order, or such other lawful power of modification as may exist from time to time).

Condition 16. Grid Code

"Grid Code"	means the code of that name to be prepared and approved in accordance with Condition 16.

Licence to Participate in the Transmission of Electricity (SONI)

Condition 16. Grid Code

Establishment of the Grid Code

1 The Licensee shall prepare and at all times have in force, and shall (subje paragraph 12) implement and comply with, a Grid Code:

(a) covering all material technical aspects relating to connections to and the operation and use of the total system or (insofar as relevant to the operation and use of the total system) the operation of electric lines and electrical plant within Northern Ireland connected to the total system or any other system in Northern Ireland for the transmission or distribution of electricity and (without prejudice to the foregoing) making express provision as to the matters referred to in paragraph 6; and

Northern Ireland as a whole.

(c) which is, in respect of the distribution system, designed so as to:

(a) permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the distribution of electricity; and

(b) which is, in respect of the transmission system, designed so as to:

(a) permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the transmission of electricity in Northern Ireland as part of efficient, co-ordinated and economical systems for the transmission of electricity on the Island of Ireland;

(b) facilitate the transmission system being made available to persons authorised to supply or generate electricity in Northern Ireland, on terms which neither prevent nor restrict competition in the supply or generation of electricity on the Island of Ireland; and

(c) subject to sub-paragraphs (i) and (ii), promote the security and efficiency of the electricity generation, transmission and distribution system in Northern Ireland as a whole.

(b) neither prevent nor restrict competition in the generation and supply of electricity in Northern Ireland, or, to the extent that the Grid Code, in respect of the distribution system, may have such effect, on the Island of Ireland.

Licence to Participate in the Transmission of Electricity (SONI)

<u>Reviews of the Code</u>

2 The Grid Code in force at the date on which this Condition becomes effective shall be the document approved as such by the Authority. Subsequently, the Licensee shall (in consultation with electricity undertakings and the Republic of Ireland System Operator, to the extent such persons are liable to be materially affected thereby) periodically review (including upon the request of the Authority) the Grid Code and its implementation. Following any such review, the Licensee, shall send to the Authority:

<u>Revision of the Code</u>

3 Revisions to the Grid Code proposed by the Licensee and sent to the Authority pursuant to paragraph 2 shall require the Authority's approval before they may be made.

<u>Content of the Code</u>

6 The Grid Code shall include:

(a) connection conditions

(b) a set of operating codes

(c) a planning code ;

(d) a set of scheduling and dispatch codes

(e) a metering code

Connection Agreement - EirGrid

9.6 Metering

The Company shall provide and maintain the Metering, power supplies, protection relays, signalling, and other equipment installed by the Company (in accordance with any relevant provisions of the Grid Code and the Metering Code). The costs

9.7 Operational Instrumentation

The Company shall as part of the Company's Connection Works, provide, install, calibrate and commission in accordance with the Construction Programme (and in accordance with any relevant provisions of the Grid Code) and maintain throughout the Term, Operational Instrumentation in the Communications and Control Room which interfaces with the Company's Supervisory, Control and Data Acquisition (SCADA) system.

9.9 Customer's Obligations

The Customer shall as part of the Customer's Connection Works, at its expense, provide and install in accordance with the Construction Programme (and in accordance with any relevant provisions of the Grid Code):-

9.9.1 Communications and Other Equipment

Communications and such other equipment as is required by the Company for the purposes of the Transmission Station, shall be advised to the Customer in accordance with the Construction Programme and/or the Grid Code, as appropriate. For information purposes only, and without limitation, such equipment may include dial-up telephone line connections between the Communications and Control Room and the public telephone network for voice communication and data collection from Metering as set out in the Grid Code;

9.9.2 Power Supplies

Power supplies, for the operation of the Commercial Metering, the Operational Instrumentation, lighting and heating, the switchgear, control and protection equipment, unless otherwise determined by the Company, shall be in accordance with the Grid Code.

9.9.3 Protection Relays

Control and protection equipment for the Customer's Equipment, associated instrument transformers and cabling and power supplies. Such equipment, transformers, cabling and power supplies shall be maintained by the Customer throughout the Term to the reasonable satisfaction of the Company in accordance with the Grid Code and the Customer shall provide to the Company such evidence as to the completion of such maintenance as is required by the Company (acting reasonably).

Connection Agreement SONI – the Right to Remain Connected

TABLE OF CONTENTS

SCHEDULES

2.8 In the event of inconsistency between the provisions of this Agreement and industry codes the following order of precedence shall prevail:

a) The Grid Code;

b) This Agreement;

c) The Connection Offer(s); and

d) The Trading and Settlement Code and the Capacity Market Code.

EirGrid SONI

Role of EirGrid & SONI

Develop, manage and operate the high-voltage electricity transmission grid.

↑

Work together ensure a secure, reliable and sustainable electricity supply and support the transition to a low-carbon energy system

↑

EirGrid: Transmission System Operator (TSO) for the Republic of Ireland.

SONI: Transmission System Operator (TSO) for Northern Ireland.

EirGrid SONI

Overview of All-island Power System

- Advanced provisions for system stability, security and grid support
- Single Electricity Market (SEM)
- High Non-Synchronous Penetration
- Currently Interconnected with UK
- New sources System Inertia
- Offshore Wind potential

1. Overview of the Grid Codes

What the Grid Codes are…

Procedures for governing the actions of all transmission system users

- Ensures transparent and equitable treatment of users
- Supports a sustainable, efficient transmission system
- Allows users to safely engage with the transmission system

Fundamental technical requirements that must be met by users to connect to and operate on the transmission system

- Short Circuit Levels, Transformer Earthing, Synchronisation, Fault Ride-Through, Voltage and Frequency Regulation etc.
- Supports the stable and secure operation of the Transmission System for the benefit of all Users

Rules governing the operation, maintenance and development of the transmission system

- The **Grid Codes are** the primary technical rulebooks for the high-voltage electricity transmission systems.
- Managed by the TSOs, they establish the standards and procedures necessary for the safe, secure and economic operation of the power system.

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Who do the Grid Codes apply to?

Requirement for Generation:
set of rules for generators to connect to the grid (from the EU)

Generators (RfG and Non-RfG)

All generating units connected to the Transmission Systems.
Wind Farms, Gas-fired plants, AGUs, Solar, CHP units, Energy Storage Power System (ESPS) (non-RfG) etc.

Demand Connection Code Units (DCC and Non-DCC)

Large demand users and distribution systems with Grid Code obligations.
Large Demand sites, DSUs, Electricity Suppliers etc.

High Voltage Direct Current Units (HVDC and Non-HVDC)

Interconnectors

The TSOs, DSO,DNO and Regulators

Organisations with defined responsibilities within the Grid Codes.
SONI/EirGrid(TSO), NIEN(DNO), ESB (DSO), UR/CRU (regulators)

Non - 'x':
Connected to the **Network** on or before the effective date of the European Code. Don't have to comply to the new EU Codes.

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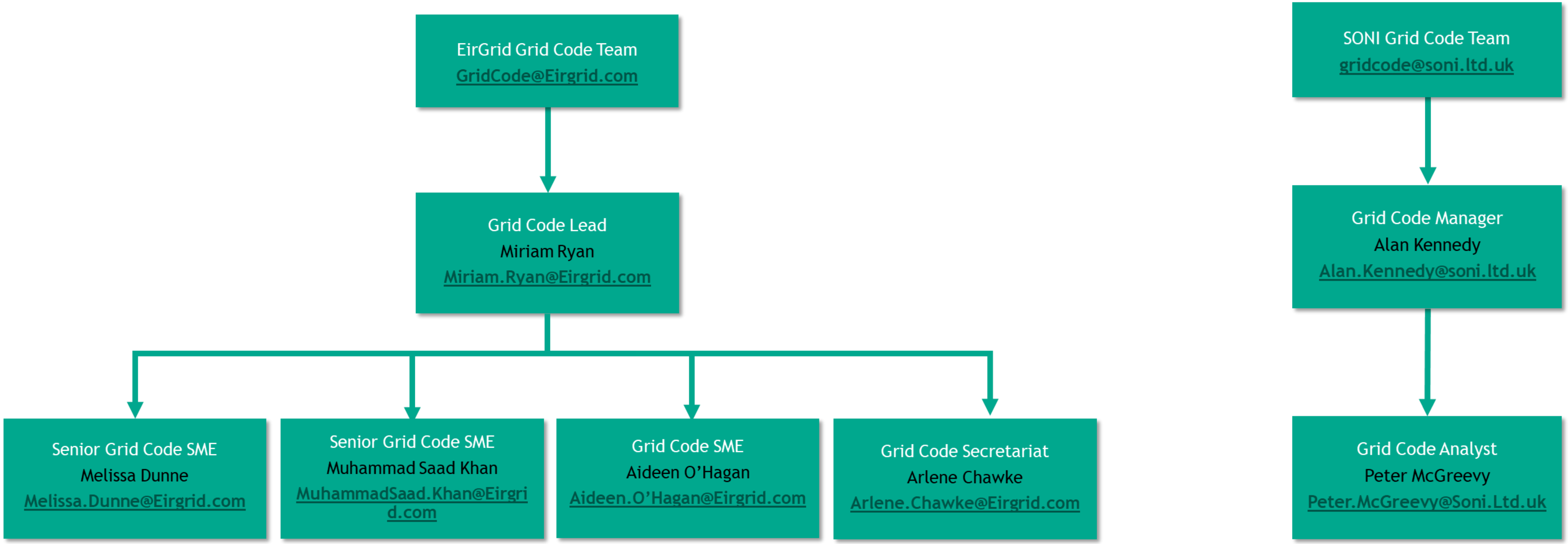
EirGrid and SONI Grid Code teams



SONI & EirGrid Grid Codes – Drivers for co-operation

EU & All-Island Alignment

- For EirGrid: mandatory alignment with EU Connection Network Codes (RfG, DCC, HVDC, etc.)
- For SONI: mandatory alignment with EU Connection Network Codes (under the Northern Ireland Protocol)
- Ensures close harmonisation across the All-Island system.

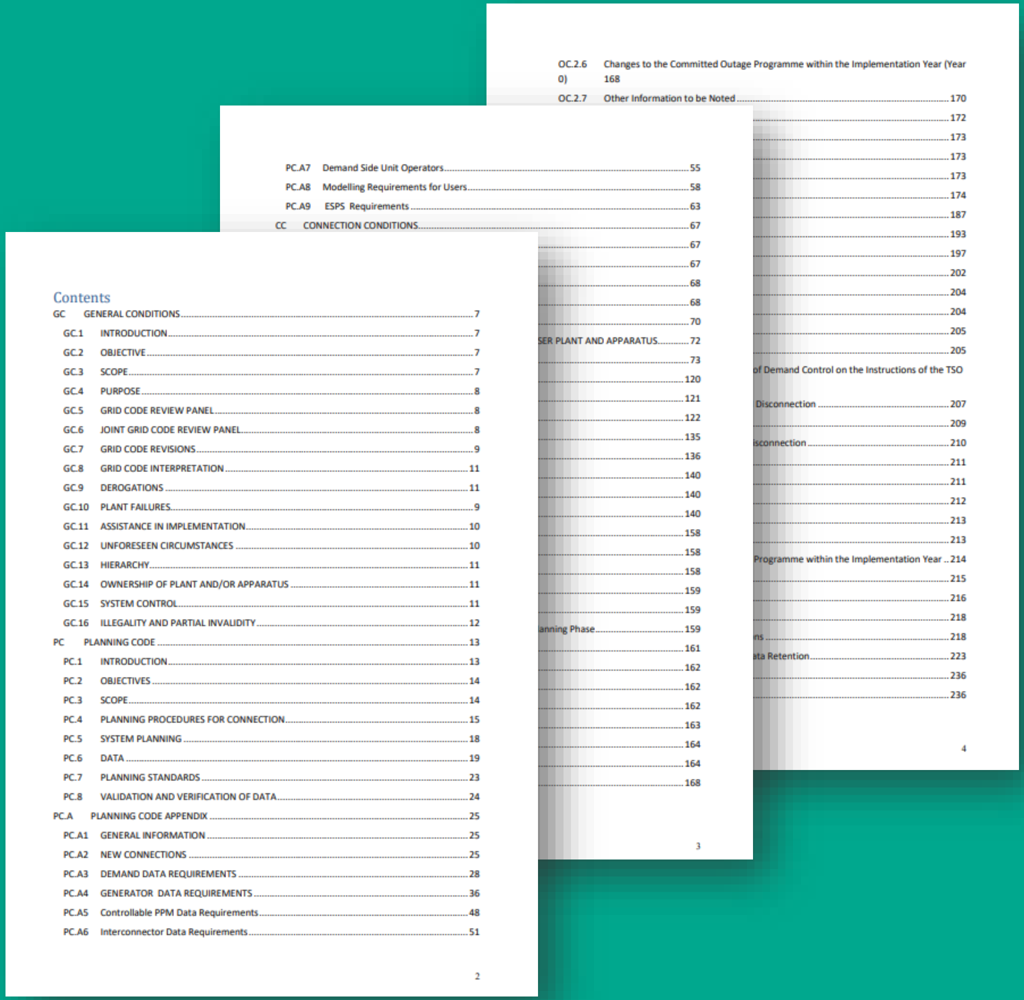
Sections of Common Governance

- All common sections reviewed and discussed through the Joint Grid Code Review Panel (JGCRP)

Common Interest and Shared Drivers for Change

- Modifications evaluated based on shared criteria including system security, reliability, operational efficiency, and market compatibility
- Key drivers include: Increasing penetration of renewables and SNSP targets
- Ongoing development of SEM / I-SEM market frameworks
- Integration of new technologies such as Energy Storage, Demand Response, Grid-Forming and Synchronous Condensers
- All-Island decarbonisation targets for 2030 and 2050

Grid Codes Structure



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Demarcation of Requirements (EirGrid / SONI)

- **Unmarked requirements**

(no symbol/border) apply to all relevant Users—meaning any party, other than the TSO, to whom that section of the Grid Code pertains.

- **Marked requirements**

(with symbol/border) apply only to the specific User categories as shown in table.

- **Exception**

Users with **Non-RfG Generation Units, Non-DCC Units, or Non-HVDC Units** may still be subject to certain requirements intended for **RfG, DCC, or HVDC Units**, where explicitly stated.

Symbol	Applicable to
○	RfG Generation Units
~~○~~	Non-RfG Generation Units
⌂	DCC Units
~~⌂~~	Non-DCC Units
‖	HVDC Units
~~‖~~	Non-HVDC Units

General Conditions (GC)

- Defines the **purpose and scope** of the Grid Codes
- Sets **obligations** for all Users, the TSOs and the RAs
- Establishes how compliance is achieved and monitored
- Outlines modification and governance processes
- Ensures secure, reliable and efficient system operation

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GC GENERAL CONDITIONS

GC.1 INTRODUCTION

GC.1.1 While each individual section of the **Grid Code** contains the rules and provisions relating specifically to that section of the **Grid Code**, there are provisions of more general application, which need to be included in the **Grid Code**. Such provisions are included in the **General Conditions**.

SONI

GENERAL CONDITIONS

GC.1 INTRODUCTION

The **General Conditions** contain provisions which are of general application to all sections of the **Grid Code**. Their objective is to ensure, to the extent possible, that the various sections of the **Grid Code** work together and work in practice for the benefit of all **Users**.

The Planning Code (PC) & The Planning Code Appendix (PCA)

The Planning Code (PC)

- Long-term system planning to ensure the grid evolves to meet future electricity demand and generation needs.
- Enables data exchange for planning User development impacting the Transmission systems.
- Users submit connection/modification applications with data.
- Provide Preliminary, Committed, and System Planning Data annually.

PCA

- Detail specific data requirements for planning based on User type (e.g., Generators, Interconnectors, Demand Units).

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PC **PLANNING CODE**

PC.1 **INTRODUCTION**

Development of the **Transmission System** will arise for a number of reasons including, but not limited to:

(a) development on a **User System** already connected to the **Transmission System**;

(b) the introduction of a new **Connection Site** or the **Modification** of an existing **Connection Site** between a **User System** and the **Transmission System**;

(c) changing requirements for electricity transmission facilities due to changes in factors such as **Demand**, **Generation**, technology reliability requirements, and/or environmental requirements; and

(d) a development on the **NI System**;

(e) the cumulative effect of a number of such developments referred to in (a), (c) and (d) by one or more **Users**.

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PLANNING CODE

PC1 INTRODUCTION

PC1.1 The Planning Code (the "PC") specifies the requirements for the supply of information by:

(a) persons (other than the **DNO**) connected or persons seeking new or modified connection to the **Transmission System** and/or use of the **All Island Transmission Networks**,

(b) **Generators** with **CDGUs** and **Controllable PPMs** connected to or seeking a new or modified connection to the **Distribution System**, and

(c) the **DNO** (in respect of information relating to **Independent Generating Plant** with a **Registered Capacity** of 5MW or more and in respect of **Demand** information at the **Bulk Supply Points**),

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Connection Conditions (CC)

- Define technical standards for safe, reliable connections and operations of User Plant to the Transmission Systems.
- Comply with earthing, protection, metering and power quality standards.
- Provide communication facilities, signals and SCADA interfaces.
- Meet voltage / frequency ranges, reactive power capabilities and fault right through.

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CC.3 SCOPE

The **Connection Conditions** apply to the **TSO** and to the following **Users**:

(a) **Generators** with **Registered Capacity** greater than 2MW;

(b) **Interconnectors**;

(c) **Demand Customers**;

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

(e) **Generators** connected to the **Transmission System**.

(f) **Demand Facilities**, **Closed Distribution Systems** and **Distribution Systems**.

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CC3 SCOPE

CC3.1 The **Connection Conditions** apply to the **TSO** and to **Users** which, in the **Connection Conditions**, means:

(a) **Generators** with respect to **Generating Units** connected to or seeking a connection to the **Transmission System** and with respect to **CDGUs** and **Controllable PPMs** connected to or seeking a connection to the **Distribution System**;

(b) **Large Demand Customers**;

(c) **Interconnector Owners**;

(d) **Aggregators**;

(e) the **DNO**; and

(f) the **TO** in relation to CC10.1.3, CC10.2.2 and CC10.3.

The Operating Conditions (OC)

- Defines procedures for safe, secure and economic day-to-day grid operation, ensuring reliability under variable demand, generation and system events while coordinating with generators and the DSO and the DNO.

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OC	**Operating Conditions**
OC.1	**Demand Forecasts**
OC.1.1	**Introduction**
OC.1.1.1	OC.1 is concerned with **Demand** forecasting for operational purposes. In order to match **Generation** with **Demand** for electricity it is necessary to undertake **Demand** forecasting. It is also necessary to undertake **Demand** forecasting of **Reactive Power**.
OC.1.1.2	In the **Operational Planning Phase**, **Demand** forecasting shall be conducted by the **TSO** taking account of **Demand** forecasts furnished by **Users** who shall provide the **TSO** with **Demand** forecasts and other information in the form set out in this OC.1.

SONI

OPERATING CODE NO. 1

DEMAND FORECASTING

OC1.1 INTRODUCTION

Operating Code No 1 ("OC1") is concerned with **Demand** forecasting and specifies the procedures to be followed and the data to be supplied to the **Transmission System Operator (TSO)** to enable the **TSO** to forecast **Demand** on the **Northern Ireland (NI) System** through the timescales ranging from 3 years in advance (namely part of the **Operational Planning Phase**) through to the **Control Phase** and into real time operation. As explained in the Glossary and Definitions section, references to the term "**User System**" shall be read as referring to the **Distribution System** with respect to provisions applicable to the **DNO**.

Scheduling and Dispatch Codes (SDC1, SDC2, SDC3)

Sections under common governance

SDC1

- Defines data submission requirements for generators, interconnectors and demand-side units.
- Enables SONI and EirGrid to create indicative operation schedules for efficient, secure and economic system operation.
- Aligns scheduling and dispatch processes with the Single Electricity Market (SEM).

SDC2

- Governs real-time control, scheduling and dispatch of generation, demand, and interconnectors by the TSOs.
- Ensures coordinated system operation to match output with demand and maintain system integrity and security.
- Supports cross-TSO coordination, including integration with TSOs.

SDC3

- This clause is only in the SONI Grid Code and covers frequency control, time control etc.

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SDC1 Scheduling and Dispatch Code No.1

Unit Scheduling

SDC1.1 Introduction

SDC1.1.1 **SEM** Provisions

(a) This Scheduling and Dispatch Code No. 1 ("SDC1") forms part of the **Sections under Common Governance** of the **Grid Code**. The **Sections under Common Governance** are those parts of the **Grid Code** which are under common governance in both the **Grid Code** and the **Other Grid Code**.

SONI

SCHEDULING AND DISPATCH CODE NO.1

UNIT SCHEDULING

SDC1.1 INTRODUCTION

SDC1.1.1 **SEM** Provisions

(a) This Scheduling and Dispatch Code No. 1 ("SDC1") forms part of the **Sections under Common Governance** of the **Grid Code**. The **Sections under Common Governance** are those parts of the **Grid Code** which are under common governance in both the **Grid Code** and **the Other Grid Code**.

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Power Park Module (PPM)

- **Defines technical requirements** for non-synchronous generation (wind, solar, storage) connected via power electronics at a single point.
- Ensures **grid stability and compliance** with EU regulations such as **RfG**.
- Obligations: Submit data, demonstrate compliance, respond to TSO signals.
- PPM is only in the EirGrid Code
- For SONI the PPM requirements are highlighted in Connection Conditions.

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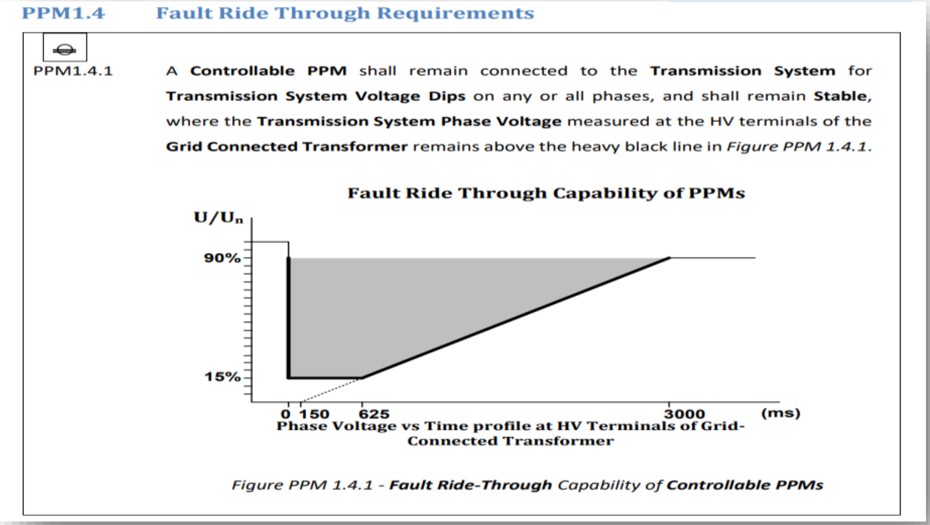
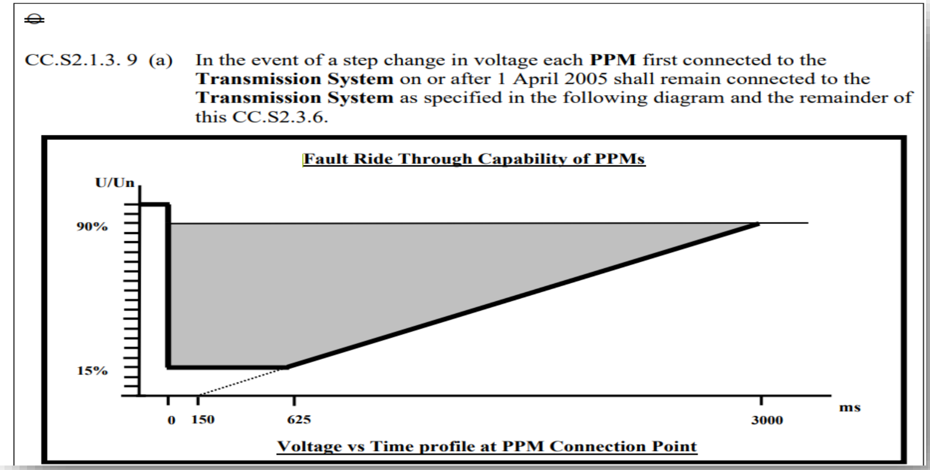

PPM1.4 Fault Ride Through Requirements

PPM1.4.1 A **Controllable PPM** shall remain connected to the **Transmission System** for **Transmission System Voltage Dips** on any or all phases, and shall remain **Stable**, where the **Transmission System Phase Voltage** measured at the HV terminals of the **Grid Connected Transformer** remains above the heavy black line in *Figure PPM 1.4.1*.

*Figure PPM 1.4.1 - **Fault Ride-Through** Capability of **Controllable PPMs***

SONI


CC.S2.1.3. 9 (a) In the event of a step change in voltage each **PPM** first connected to the **Transmission System** on or after 1 April 2005 shall remain connected to the **Transmission System** as specified in the following diagram and the remainder of this CC.S2.3.6.

2. Grid Code Review Panel

Grid Code Review Panels (GCRP)

Advisory body for reviewing and proposing modifications

Includes representatives from industry stakeholders

Regularly review and discuss the Grid Code and its operational effectiveness

Consider modification requests submitted by the TSO, Regulator, Users, or potential Users

Identify and discuss any Grid Code changes required due to unforeseen events raised by the TSO

Develop and publish recommendations, ensuring Users have been consulted via Panel representatives and Public Consultation in line with the relevant governance structure.

Joint Grid Code Review Panel (JGCRP)

- It is mandated to align the areas of common governance, concentrating on harmonised Grid Code sections between SONI and EirGrid.
- Operates under its own constitution, aligned with the GCRP constitutions
- Does not have independent voting authority; recommendations are progressed through the GCRP
- May take into account amendments proposed by either TSO individually or both concurrently.
- Offers joint feedback to assist in developing individual recommendations aimed at ensuring consistent operation across the island.
- Provides support to working groups and sub-committees established to address All-Island topics.

GCRPs / JGCRP Member Role

Core Responsibilities

- Follow the GCRP/JGCRP constitutional rules and procedures.
- Review Grid Code sections, consider amendments and identify areas for development.
- Develop and discuss proposed changes.
- Represent the interests of your appointing sector while supporting overall Panel objectives.
- Participate in meetings, discussions and approval of minutes.
- Provide timely engagement.

Participation & Conduct

- Each member represents one Appointor.
- Advisers and observers may attend the meeting in line with governance.(non-members)
- Engage in working groups or sub-committees when formed.
- Review circulated materials (agendas, minutes, proposals).
- Attend meetings in line with quorum requirements.

GCRP/JGCRP Representatives

EirGrid	
Constituency	**Number of Reps**
Chairperson	1 (TSO)
Secretary	1 (TSO)
TAO (Transmission Asset Owner)	1 (ESB)
DSO (Distribution System Operator)	1 (ESB)
TSO (Transmission System Operator)	2 (TSO)
CCGT (Combined Cycle Gas Turbine)	1
Therman Generator	2
Fast Acting Peaking	1
Synchronous Renewables	1
Pumped Storage	1
Non-Synchronous Renewable	2
Demand Customers	1
DSU (Demand Side Unit)	2
Energy Storage	1
PES (Public Electricity Supplier)	1
Regulatory Authority	1 (CRU)
Market Operator	1 (TSO)
Interconnector Owners	1
Solar Generators	1
SCU (Synchronous Condenser Unit)	1
Offshore Non-Synchronous	1

SONI	
Constituency	**Number of Reps**
Chairperson	1 (TSO)
Secretary	1
DNO (Distribution Network Operator)	1 (NIEN)
TSO (Transmission System Operator)	3 (TSO)
TO (Transmission Owner)	1 (NIEN)
Generators	3
Renewable Energy (PV, large scale RE & small scale RE)	3
DSU (Demand Side Unit)	1
Energy Storage	1
Suppliers	2
Regulatory Authority	1
SEM Operator	1
Interconnector Owners	1

Grid Code Modifications

EIRGRID & SONI

Standard Grid Code Modification

- A formal change process used for updates that affect technical, operational, or compliance obligations within the Grid Codes.
- It ensures that material changes receive full scrutiny, including review, analysis and regulatory oversight.

EIRGRID ONLY

Housekeeping Modification

- A streamlined pathway for non-material corrections such as wording fixes, formatting updates and removal of outdated references.
- It exists to maintain clarity and accuracy in the Grid Code without initiating a full modification cycle.

Grid Codes Modification Process

EirGrid

EirGrid
Responsible for development and maintenance of Grid Code in Ireland through Grid Code Review Panel (GCRP)

Grid Code Review Panel
Industry panel. Review and discuss workings of and potential amendments to Grid Code
Make and publish recommendations, ensuring User consultation through GCRP members

CRU
Grid Code Modifications require CRU approval

SONI

SONI
Responsible for development and maintenance of Grid Code in Northern Ireland through Grid Code Review Panel (GCRP)

Grid Code Review Panel
Industry panel. Review and discuss workings of and potential amendments to Grid Code
Make and publish recommendations, ensuring User consultation through GCRP members

Public Consultation
SONI are required to consult upon any proposed modifications to the SONI Grid Code and provide the UR with a Modification Consultation Report to assist with decision making

UR
Grid Code Modifications require UR approval

Housekeeping Modifications

EIRGRID ONLY

- Identify non-material corrections or clarifications
- Prepare redline/greenline housekeeping pack
- Share with GCRP members for 10-day review
- Submit to CRU for streamlined approval
- CRU approval & publication of update
- Incorporation into latest Grid Code version

Housekeeping Modifications Example

EIRGRID ONLY

HKID	Modification Category	Red Line Version Text Deleted text in ~~strike-through red font~~ and new text highlighted in blue	Green Line Version Text	Status	For Grid Code use only	
					Approve/Reject	Comment
121_V16_PC.A4.3	Defined term should appear bolded and capitalised	PC.A4.3 **Generator Operating Characteristics and Registered Data** Minimum requirements for ~~generator~~ **Generator** operating conditions are specified in the **Connection Conditions**.	PC.A4.3 **Generator Operating Characteristics and Registered Data** Minimum requirements for **Generator** operating conditions are specified in the **Connection Conditions**.	Modification with GC for review		
122_V16_PC.A4.3	Defined term should appear bolded	[in table] * ~~Generator~~ **Generator** Rating:	[in table] * **Generator** Rating:	Modification with GC for review		
123_V16_PC.A4.3	Defined term should appear bolded and capitalised Undefined term should not appear capitalised	[in table] § Capability ~~Chart~~ chart showing full range of operating capability of the ~~generator~~ **Generator** including thermal and excitation limits.	[in table] § Capability chart showing full range of operating capability of the **Generator** including thermal and excitation limits.	Modification with GC for review		
124_V16_PC.A4.3	Typo	[in table] § Can the ~~Generator~~ **Generator** start on each fuel	[in table] § Can the **Generator** start on each fuel	Modification with GC for review		
125_V16_PC.A4.4	Defined term should appear bolded and capitalised Undefined term should not appear capitalised	[in table] * Turbine ~~generator~~ **Generator** ~~Inertia~~ inertia constant for entire rotating mass	* Turbine **Generator** inertia constant for entire rotating mass	Modification with GC for review		
126_V16_PC.A4.6	Defined term should appear bolded and capitalised	**PC.A4.6 § Excitation System:** Provide parameters and supply a Laplace-domain control block diagram (or as otherwise agreed with the **TSO**) completely specifying all time constants and gains to fully explain the transfer function from the compensator or ~~generator~~ **Generator** terminal voltage and field current to ~~generator~~ **Generator** field voltage. These parameters may include but are not limited to:	Provide parameters and supply a Laplace-domain control block diagram (or as otherwise agreed with the **TSO**) completely specifying all time constants and gains to fully explain the transfer function from the compensator or **Generator** terminal voltage and field current to **Generator** field voltage. These parameters may include but are not limited to:	Modification with GC for review		
127_V16_PC.A5.1	Defined term should appear bolded and capitalised	[in table] How the ~~generator~~ **Generator** is run up to synchronous speed	[in table] How the **Generator** is run up to synchronous speed	Modification with GC for review		

Timelines

Standard Modification Process

GCRP/JGCPR meeting process

Notice of Meeting
- 14 days

Meeting material
- 10
+ 2 days (EG)
+1 days (SONI)

Presentation circulation
-1 day

GCRP meeting
0

Minutes circulation
+ 10 days

Approval of Minutes
+ 20 days

Amendments
Next GCRP meeting

Housekeeping Modification Process

EIRGRID ONLY

Issue batch of 30 HK mods onto website

GCRP review
2 weeks

Grid Code team review
1 day (or longer - case dependent)

If amendment - GCRP review
2 weeks

CRU Review
No time limit

Implement changes in the next version of the Grid Code where appropriate

Role of the Regulators

- The regulators are the owners of the Grid Codes, with the Grid Code teams within the TSOs administering and maintaining them on trust.
- The Commission for Regulation of Utilities (CRU) for EirGrid and the Utility Regulator (UR) for SONI.
- The regulators provide independent oversight and final authority across the Grid Code framework. Their role spans both the GCRP modification process and the wider governance of the electricity system.

In the GCRP Process

- Ensure that Grid Codes changes support system security, transparency and fair market operation.
- Review and approve (or reject) modification recommendations from the System Operators and the GCRPs.
- Provide direction on policy or regulatory priorities that may drive new modifications.

Across the Wider Grid Code Framework

- Set binding policies and directions for the System Operators.
- Approve network investment plans and associated revenue allowances.
- Oversee implementation and compliance with market and operational rules.
- Lead formal consultation processes and issue regulatory decisions.
- Act as national regulators within the Single Electricity Market governance structure.

EirGrid SONI

Why We Value the GCRPs and the JGCRP

Informed decision-making

Industry alignment

Challenge and validation

Early visibility

Appropriateness of the codes

Support for net-zero delivery

3. Additional Guidance Related to Grid Codes

What are EU Connection Network Codes (CNCs)?

NI Protocol
Is the legislative mechanism for applying EU Regulation in Northern Ireland i.e. CNC codes

EU Connection Network Codes:

- Have been incorporated into the relevant Grid Code(s) - EirGrid Grid Code and SONI Grid Code
- Govern connection requirements to the Transmission Systems to support secure and interoperable system operation
- Facilitate the connection of users and the development of the electricity market
- Take legal precedence over the Grid Codes where there is any discrepancy
- Demarcations (boxes and symbols) are used to clearly identify provisions derived from EU Connection Network Codes, highlighting where these legally binding requirements have been incorporated into the EirGrid and SONI Grid Codes

The main EU Connection Codes we comply with:

- Requirements for Generators (RfG)
- Demand Connection Conditions (DCC)
- High Voltage Direct Current (HVDC)

Other EU Codes

"Operational Codes"	"Market Codes" Not in Grid Codes
▪ System Operational Guidelines (SOGL) ▪ Emergency Response and Restoration (ER)	▪ Capacity allocation and congestion management ▪ Forward capacity allocation ▪ Balancing

EirGrid SONI

Legal Strength of the Grid Codes

EirGrid

- **CNCs**
  - CRU
  - TSO Licence
  - Connection Agreements

SONI

- **Post-Brexit Agreements**
  - Relevant Network Codes
  - TSO Licence (incl. UR directions under Condition 16)
  - Connection Agreements

Grid Codes Interactions

Ensures consistency across regulatory frameworks

Market Codes

System Services Provision

Distribution Codes, Trading & Settlement Code, Capacity Codes, Metering Code, EU Network Codes

External communications

Email

main channel for meeting invites, agendas, minutes and direct updates.

Public websites

Grid Code documents, consultations and decisions, modification updates and GCRP papers/minutes.

Extranet (under development)

Shared workspace for draft material and collaborative work.

The Grid Code | The Grid | EirGrid

The Grid Code - SONI

Questions