

Ireland Grid Code Review Panel #3 2021

Welcome to all members

02 November 2021

Agenda

Topic

INTRODUCTION: 15 MINS

- a. Welcome to Members
- b. Minutes and Actions from Previous Meeting (20 July 2021)

MODIFICATION PROPOSALS: 60 MINS

- a. MPID 293 – DSU Maximum Down Time;
- b. MPID 299 – Reduction of Aggregator Limit to 1MW;
- c. MPID 300 – Solar PV Signal Requirements;
- d. MPID 297 – Correction PPM RfG Non-RfG Frequency Periods;
- e. MPID 294 – Align the Grid Code with the GCRP Constitution;
- f. MPID 298 – Grid Code v9 Housekeeping.

DISCUSSION ITEM: 10 MINS

- a. How user-friendly is the Grid Code?

UPDATES: 15 MINS

- a. Grid Code Derogations Update;
- b. Sync Comp Update;
- c. Offshore PPMs Update;
- d. CRU Update;

AOB 5 MINS



MPID 293 – DSU Maximum Down Time

DRAI

Next step?

MPID 299 – Reduction of Aggregator Limit to 1MW

FERA

Next Step

MPID 300 – Solar PV Signal Requirements

EirGrid – Anna Corcoran

Justification

- The Grid Code currently only contains required wind farm meteorological and availability data signals
- Given the proposed increase in large-scale solar development in Ireland it is necessary to include in the Grid Code the required solar farm meteorological and availability data signals
- Modification consistent with current wind-powered PPM requirements
- Engaged with stakeholders from the Solar Industry and received positive feedback

Solar Farm Meteorological Signal Requirements

- a) Global Horizontal Irradiance (GHI)
- b) Diffused Horizontal Irradiance (DHI)
- c) Direct Normal Irradiance (DNI) (solar tracking panels)
- d) Air temperature
- e) Back panel temperature
- f) Wind speed
- g) Wind direction
- h) Precipitation
- i) Air pressure

Solar Farm Availability Signal Requirements

- a) Solar-powered Controllable PPM Availability (0-100% signal)

Grid Code Sections Impacted

Modified Sections:

PPM1.7.1.2.2;
PPM1.7.1.2.3;
PPM1.7.1.2.4;
PPM1.7.1.3.1;
PPM1.7.1.3.3; and
PPM1.7.1.3.4.

New Sections:

PPM1.7.1.2.2.1;
PPM1.7.1.2.2.2;
PPM1.7.1.3.2.1;
PPM1.7.1.3.2.2.

Questions?

MPID 297 – Clarification of PPM Frequency requirements for PPMs (RfG Units)

EirGrid – Niamh Daly

Justification

- When the RfG was incorporated into the Grid Code, the Generator frequency ranges and durations were included in CC.7.3.1.1.(w).
- Under PPM1.3.2, CC.7.3.1.1(w) is applicable to PPMs which are classed as RfG units.
- The absence of these requirements from the PPM section has been causing some confusion.
- The purpose of this modification is to include these requirements in PPM.1.51. and resolve any confusion.

Sample Modification to PPM.1.5.1

○

(e) Remain synchronised to the **Transmission System** and operate within the frequency ranges and time periods specified in *Table PPM1.5.1(e)*.

Table PPM 1.5.1(e): Minimum Time Periods for Generation Units to Remain Operational without Disconnecting

Frequency Range	Time Period
47 – 47.5 Hz	20 seconds
47.5 – 48.5 Hz	90 minutes
48.5 – 49 Hz	90 minutes
49 – 51 Hz	Unlimited
51 – 51.5 Hz	90 minutes
51.5 – 52 Hz	60 minutes

Questions

MPID 294 – Changes required to align the Grid Code with the GCRP Constitution

EirGrid – Arlene Chawke

Background

- Previous meeting we presented:
 - a discussion item on changes to the GCRP Constitution; and
 - changes to the Grid Code.
- No comments were received during the 10 day comment period;
- Today we present:
 - A proposed Grid Code modification; and
 - Changes to the EirGrid GCRP Constitution.

Proposed Modification

- No changes since it was presented as a discussion item;
- The purpose is to align the Grid Code with the Constitution;
- Proposal:

Clause	Proposed Changes ¹⁸¹⁸
GC.5.1 and GC.6.1	<ul style="list-style-type: none">• Change the term 'amendments' to 'modifications';
GC.7.1	<ul style="list-style-type: none">• Sets out the notice required for the issue of the agenda and proposed modifications;• Align clause to section 13.3 of the constitution;• Include the reference to 'Business Days' in keeping with the Constitution and to what we do in practice;• Include the 'exclusion' of the day the notice is issued and the day of the meeting. This is what we do in practice;

Questions

EirGrid Constitution

- One further inclusion since we presented this as a discussion item;
- As per Peter King's recommendation we have included a separate solar representative:
 - *1 person appointed by Grid Connected Solar Generators, and representing Solar Generators;*

Next Steps

- The TSO will issue the amended Constitution to the CRU for their signature and EirGrid will countersign.

Questions

MPID 298 – Grid Code v9 Housekeeping

EirGrid – Arlene Chawke

Proposal

- Several 'typo' style errors have come to our attention.
- The TSO propose a fix to those errors that span various clauses.

Proposed

CLAUSE	ERROR	RED LINE	GREEN LINE
Definition – Pumped Storage Mode	Grid Code version 1 and every other version of the Grid Code since then has included a definition for Pumped Storage Mode as set out in the Red Line Version column. We propose removing the word ‘including’.	A mode of operation of a Pumped Storage Unit including	A mode of operation of a Pumped Storage Unit.

Proposed

Clauses	Proposed Change
CC.10.9.5 and CC.10.9.6	Removal of stranded bulletin points.
OC.8.1.2 OC.9.4.1 OC.10.7.3.3	Bolding of defined terms.
CC.7.2.1.3	Correction of a spelling 'disconnects'.

Questions

Discussion on User-friendliness of Grid Code

EirGrid – Niamh Daly

Background

- Usability trial on Grid Code was carried out
 - 5 EirGrid employees, no Grid Code experience
 - Acted as a User searching for their Grid Code requirements
 - Focused solely on user-friendliness, not on technical requirements or demarcation

Sample Questionnaire

User Trial:

User Profile:

- You are a new “wind farm”
- **Registered Capacity** of 35MW
- Can be controlled from the NCC
- Connected to the **Transmission System** at 110kV

Questions to be answered using the Grid Code:

Question 1:

How long must your wind farm stay connected to the **Transmission System** if the **Transmission System Frequencies** are between 47.5Hz and 52.0Hz?

Question 2:

What **Transmission System Voltage** range must your wind farm remain connected to the **Transmission System** for an unlimited period?

Question 3:

What weather data do you need to send to the NCC?

Results of Trial

Problems

Issues with Table of Contents – found it too long, couldn't work out what section was relevant	<u>3/5</u>
Unable to find table of acronyms and definitions	<u>3/5</u>
Used the search function (would make using a hardcopy very difficult)	<u>5/5</u>

Suggestions

Move acronyms and definitions to the front	<u>4/5</u>
Group according to user	<u>4/5</u>
Make Table of Contents more user friendly	<u>5/5</u>

Table of Contents



Acronyms and Definitions



Suggested Improvements

1. Move Definitions and Acronyms to front
2. Re-format the Table of Contents
3. Write an Introduction- Include one sentence description of each section

Next Steps

- Collect GCRP feedback
 - Now by discussion, by email or by survey?
- Circulate draft Grid Code changes with suggested improvements
- Possible Grid Code modification proposal at next GCRP

Questions

Grid Code Derogations Update

EirGrid – Anne Trotter

Grid Code Derogations Update

- Total:
 - Under TSO Assessment 140
 - With CRU for review 60
- Since July 2021:
 - Approved by CRU 1
 - Recommendations sent to CRU 21
 - Submitted to TSO 15

Questions

Sync Comp Update

EirGrid – Miriam Ryan

Questions

Offshore PPM Update

Miriam Ryan

Offshore PPM update

- Additional resources to assist with the implementation of offshore development policy;
- Developing a “minded to” position on key decisions, including ownership and operational boundaries;
- Engaging with key stakeholders;
- An industry engagement policy and has been communicated to Phase 1 projects.

Questions

Dylan Ashe – CRU Update

Questions

AOB

Draft Minutes will be issued by COB 16 November 2021