

**Approved Minutes of the Ireland Grid Code Review Panel (GCRP) Meeting**  
**SONI Offices, Belfast**  
**19 November 2019**

---

**Member Attendance:**

<b><u>Name</u></b>	<b><u>Present</u></b>	<b><u>Role</u></b>	<b><u>Company</u></b>
Arthur Moynihan	Y	Ireland GCRP Chair	EirGrid
Miriam Ryan	Y	TSO Member	EirGrid
Anne Trotter	Y	TSO Member	EirGrid
Michael McCormack	N	Grid Connected Thermal Generators	Bord na Móna
Position open		Grid Connected Thermal Generators	
Oliver Caherty alternate for Rory Griffin	Y	Grid Connected CCGT Generators	Bord Gais Energy
Colin D’Arcy	N	Grid Connected CCGT Generators	Tynagh Energy
Mark Coleman	Y	Grid Connected Non-Synchronous Renewable Generators	SSER
Peter King	Y	Grid Connected Non-Synchronous Renewable Generators	Ionic Consulting
William Carr	Y	Grid Connected Pumped Storage	ESB GWM
Position Open		Grid Connected Synchronous Renewable Generators	
Pat O’Donnell	N	Grid Connected Fast Peaking Plants	SSE
Jim Wynne	Y	ESB PES	Electric Ireland
Position open		Independent Electricity Supplier	
Cormac Fitzpatrick	Y	Transmission Asset Owner	ESB Networks TAO
Dylan Ashe alternate for Robert O’Rourke	Y	Regulator	CRU
Karl O’Keeffe	Y	Irl - Interconnector Owner	East-West Interconnector
Tim Steele	Y	Market Operator	SEMO
Tony Hearne	N	Distribution System Operator	ESB Networks
Paddy Finn	N	Grid Connected Demand Side Units	Electricity Exchange

Lisa McMullan	N	Grid Connected Demand Side Units	Grid Beyond
Kenneth Matthews	N	Grid Connected Demand Customers	Amazon

**Other Attendees:**

<b><u>Name</u></b>	<b><u>Present</u></b>	<b><u>Role</u></b>	<b><u>Company</u></b>
Arlene Chawke	Y	GCRP Secretary	EirGrid
Éanna Farrell	Y	TSO Presenter	EirGrid
Alan Rogers	Y	TSO Presenter	EirGrid
Darren Molloy	Y	TSO Presenter	EirGrid

## **1. Introduction to Ireland GCRP Meeting & Approval of Minutes**

- a) Arthur Moynihan (Chair) welcomed all members, observers and presenters to the meeting.
- b) The Minutes from the previous meeting had been circulated, one comment was received but it did not result in any change to the Minutes. The Minutes had been deemed approved.
- c) Arthur Moynihan (Chair) reviewed the actions from the previous meeting:

- a) Action 2(e) – The TSO to make the RfG Article Incorporation Locations table available on the EirGrid website:

Complete – document has been made available on the website.

- b) Action 2(g) – On issue of a new version of the Grid Code the TSO is to ensure that a notice is circulated to all customers:

02 July 2019 an email was circulated to customers following the publication of Grid Code version 8.

- c) Action 7(d) - The TSO to carry out a mapping exercise between the current modes (curve 1 and curve 2) to the three new control modes and to develop a matrix:

Work is ongoing and we are engaged with individual customers. We will bring a finalised version of the mapping to the next Ireland GCRP meeting.

- d) Action under AOB (a) - A query from Paddy Finn on the rules governing the controllability of units down to 1 MW and what this is being used for:

EirGrid are dealing directly with Paddy Finn on this. Discussions are ongoing.

- e) Action under AOB (e) - Mark Coleman (SSER) requested that the TSO take an action to have Battery Storage represented on the GCRP:

We anticipate having a Battery Storage member appointed for 2020. All of the Ireland GCRP members will retire at the end of this year following their two year appointment. The TSO

will seek nominations for the next two years, commencing 2020. The TSO will kick off this process over the next few months.

- f) Action under AOB (f) - The TSO to follow up on a previous query from Peter King on the Registered Capacity and Reactive Power Capability of Battery Storage systems:

A discussion on the interpretation of Registered Capacity will take place at this meeting.

## 2. **Proposed Modification MPID 276(a) – Incorporation of DCC Non-Exhaustive Parameters**

- a) Éanna Farrell (TSO Presenter) presented slides on modification proposal MPID 276(a). No feedback was received in advance of this meeting.
- b) **ACTION:** Following a query from Cormac Fitzpatrick (TAO) the TSO agreed to look at providing definitions for Non-Network Code User and Network Code User to make it clearer for Users of the Grid Code.
- c) Following a query from Cormac Fitzpatrick (TAO) on the modification proposal process Arthur Moynihan (Chair) clarified that following a GCRP meeting the chair will determine whether to submit a modification recommendation to the CRU for approval. The recommendation paper will detail the history of progression of the modification and provide a summary note of any objections to the recommended change.
- d) Following a discussion Miriam Ryan (TSO Member) provided clarity on a number of items:
- This modification proposal incorporates requirements from the DCC Network Code and the TSO has harmonised them with the Grid Code as fairly as possible.
  - The Distribution System is an existing defined term in the Grid Code.
  - A system operator to system operator agreement with the DSO is already in place. This covers all of connection points between the TSO and DSO.
- Post Meeting Note:** System Operator Connection Agreements between TSO and DSO are in place for each TSO/DSO nodal point and are amended to take into account any changes, in the same manner as Connection Agreements for other Users.
- e) Cormac Fitzpatrick (TAO) recommended further engagement takes place with ESB Networks to discuss how this will be implemented before a recommendation is made to the CRU. The DSO connection agreements cannot be compared to individual users – it is easier to understand the application of the DCC requirements to an individual user connection but it is not as straight forward for the DSO, for example DSO bulk supply points. The administration, process changes and understanding of the requirements for getting a connection or modifying an existing connection must be fully understood and appreciated by everyone including the DSO.

- f) Arthur Moynihan (Chair) clarified that the DCC code will apply to any new bulk supply points. However the TSO is still working through the application of the DCC to existing connection points that are modernised, refurbished or replaced. This was discussed later on in the agenda too.
- g) Arthur Moynihan (Chair) acknowledged that there are learnings for both operators going forward and the code will evolve over time. The TSO has endeavoured to mirror the text of the DCC Network Code. The Network Code is the over-arching legal document and it has legal precedent over the Grid Code.
- h) Miriam Ryan (TSO Member) as way of background noted that the TSO selected the DCC requirements as close to the existing Grid Code as would allow. The voltage requirements are near identical. The frequency requirements will require a change to the protection settings, and at the time of selection this was discussed at length with the DSO. A lot of the other requirements are for Demand Response Providers, which will not apply to the DSO.
- i) **ACTION:** Arthur Moynihan (Chair) encouraged participants to submit any comments they may have when they review the Minutes – they will have ten working days to return any comments. The TSO will reflect any meeting comments and comments received to the Minutes, relevant to this modification, in the submission paper to the CRU. The CRU will have the full spectrum of views before they make a decision on the matter.
- j) Cormac Fitzpatrick (TAO) provided a handy tip for searching Network Code requirements in the Grid Code by carrying out a search with any one of the new symbols.
- k) Following on from a discussion on Demand Side Units, Arthur Moynihan (Chair) clarified that we are currently not proposing any changes to existing requirements or creating any new requirements for DSUs but we may bring a modification proposal to a future GCRP. Currently we are reviewing some of the DCC articles (27-30) that have been included in a Request for Amendment from the CRU.
- l) Karl O’Keeffe (Interconnector) clarified that DSUs have an interface agreement with the TSO.
- m) **ACTION:** TSO to confirm the mechanism under which DSUs are subject to Grid Code
- n) **ACTION:** Following a query from William Carr (Pumped Storage) on the inclusion of Energy Storage/Battery Storage, the TSO has taken an action to clarify if the DCC explicitly excludes Energy Storage from the DCC. It was further noted that Energy Storage devices have been explicitly excluded from RfG.
- o) **POST MEETING NOTE:** Article 3(2) (b) of DCC excludes storage devices from complying with DCC, except for pump-storage power generating modules that can only operate in pumping mode.

### 3. Proposed Modification MPID 276(b) – RfG Operational Notification

- a) Darren Molloy (TSO Presenter) presented slides on modification proposal MPID 276 (b).
- b) Darren Molloy (TSO Presenter) confirmed that the documentation supporting Energisation Operational Notification will sit outside of the Grid Code.
- c) **ACTION: Cormac Fitzpatrick (TAO) pointed out that we need to change WFPS to PPM – in slide number 18, line number 21.**
- d) No further comments were received from the panel members.

### 4. Proposed Modification MPID 276(c) – RfG Derogation Process

- a) Anne Trotter (TSO Member) presented slides on modification proposal MPID 276 (c).
- b) Following a discussion on the derogation forms Anne Trotter (TSO Member) confirmed there are three derogation forms:
  - 1. the existing derogation form for an existing generator to apply for a derogation against the Grid Code;
  - 2. a new Connection Network Code derogation form for generation units connected/contracted after 30 November 2018 or existing Generation Units that have undergone modernisation or refurbishment to apply for a derogation against the Grid Code; and
  - 3. a new Connection Network Code derogation form for the TSO to apply to the CRU for a class derogation.
- c) **ACTION: Cormac Fitzpatrick (TAO) requested that following clarification sought on the application of the DCC to Energy Storage that the TSO can also confirm if they will apply for a class derogation depending on the response from ENTSO-E.**
- d) **POST MEETING NOTE: Above action is complete - Article 3(2)(b) of DCC excludes storage devices from complying with DCC, except for pump-storage power generating modules that can only operate in pumping mode.**
- e) Following a discussion on the Derogation Process for the DCC, Arthur Moynihan (Chair) confirmed that future modification proposals for the DCC Derogation Process and the HVDC Derogation Process will be brought to the GCRP. Miriam Ryan (TSO Member) further added that the timelines for the DCC and HVDC derogation processes will be similar to the timelines in the RfG.
- f) Oliver Caherty (CCGT) expressed concern that a generator only has one month to submit additional information and noted it appears slightly wrongly weighted across the whole process duration.

- g) The TSO acknowledged this point but the timelines have been clearly defined in the Network Code.
- h) Mark Coleman (Non-Synchronous Renewable Generators) questioned how much flexibility is there for situations where it is a complicated derogation application and the issue has a wider impact for other similar types of units.
- i) Miriam Ryan (TSO Member) noted that we can look at other avenues before we go down the derogation process route – create working groups, carry out studies – and following a recommendation the units can apply for derogations. The timelines have been defined once the derogation process kicks off and there is little flexibility.
- j) Mark Coleman (Non-Synchronous Renewable Generators) further added that the requirements of the Network Codes will not be applied retrospectively and therefore there may be fewer requirements for derogation applications.
- k) Mark Coleman (Non-Synchronous Renewable Generators) further expressed that on a whole he is happy with the process that is being proposed.
- l) **ACTION:** Cormac Fitzpatrick (TAO) asked the TSO to change the WFPS reference in the derogation form to PPM.

## 5. **Proposed Modification MPID 276(d) – Housekeeping Modification**

- a) Arlene Chawke (GCRP Secretary) presented slides on modification proposal MPID 276 (d).
- b) **ACTION:** Ensure that all references to WFPS are replaced by PPM in the green line version e.g. line item number 25.
- c) Peter King (Non-Synchronous Renewable Generators) enquired if the Met Mast Modification (MPID 273) had been included in the current Grid Code.
- d) **POST MEETING NOTE:** Please see [here](#) for the Modification Recommendation Paper that was issued to the CRU on 15 October 2018. The CRU approved the recommendation on 06 Nov 2018. The modification has been incorporated into Grid Code version 8.
- e) No further comments were received in relation to this modification proposal.

## 6. **Proposed Modification MPID 277 – PPM FRT**

- a) Alan Rogers (TSO Presenter) presented slides on modification proposal MPID 277. This modification was requested by industry and was discussed at length with IWEA in advance of this meeting.

- b) Peter King (Non-Synchronous Renewable Generators) has received feedback from IWEA, they have prepared a response expressing concerns with the definition, the calculation and possible oscillation scenarios. They would appreciate further time to issue a response and to further engage with the TSO on this proposal. In addition, a discussion on Registered Capacity will take place later at this meeting that may have an impact on this modification.
- c) **ACTION: Peter King (Non-Synchronous Renewable Generators) to ensure response is issued to the TSO from IWEA on the proposed modification**
- d) Arthur Moynihan (Chair) agreed to postpone this proposal to allow for further engagement between industry and the TSO. A proposal will be brought forward to the next GCRP meeting.
- e) Mark Coleman (Non-Synchronous Renewable Generators) noted that the current FRT requirement is open to interpretation and this proposal is going in the right direction. He welcomes placing it on hold to allow for further engagement with industry.

## 7. Discussion Items – Reactive Current Rise and Settling Times - Post-fault Recovery of Active and Reactive Power

- a) Alan Rogers (TSO Presenter) presented slides on these two discussion items. Previous to this the TSO and IWEA have met to discuss these items.
- b) **ACTION: Peter King (Non-Synchronous Renewable Generators) will ensure that the finalised IWEA position is submitted to the TSO.**
- c) **ACTION: TSO/IWEA to organise a further workshop to discuss and to develop the agreed modification proposals for the next GCRP meeting.**
- d) **ACTION: TSO/IWEA to ensure an agreed position and proposed modification is prepared one month in advance of the next meeting (mid to end March) to allow for the governing timeframes for proposed modifications.**
- e) Mark Coleman (Non-Synchronous Renewable Generators) recommended that future engagement also considers the appraisal of a Windfarm's capability to provide enhanced FRT System Services.
- f) **ACTION: TSO/IWEA to consider Mark Coleman's comments noted above during future discussions.**
- g) Anne Trotter (TSO Member) noted that System Service requirements sit outside of the Grid Code but acknowledged it is worth considering the relationship in terms of compliance.

## 8. Follow on from the JGCRP discussion item on the application of Connection Network Codes to existing users following a modernisation or replacement of equipment.

- a) Miriam Ryan (TSO Member) requested feedback on this morning's discussion at the JGCRP.
- b) William Carr (Pumped Storage) highlighted that a European Stakeholder Committee working group has been established to look at the implementation of the Network Codes. The meaning of significant modification is one of the items the working group is looking at. The Committee was formed on the basis of future re-iterations of the Network Codes. The output of this working group may provide guidance for us.
- c) **ACTION: William Carr (Pumped Storage) will forward details of the working group to the TSO.**
- d) Miriam Ryan (TSO Member) noted that the Network Codes do not require the TSO to consult on this but EirGrid and SONI welcome industry feedback. The paper has been jointly developed with the DSO and it was presented and well received by the members of the DCRP.
- e) **ACTION: The TSO to circulate the discussion paper along with the Minutes and the members have until 20 December to submit their feedback. In early 2020 the TSO and the DSO will submit a joint proposal to the CRU for agreement.**

## 9. Interpretation of Registered Capacity Definition

- a) Miriam Ryan (TSO Member) presented on this discussion item.
- b) Following on from a discussion on MVA versus MW, and losses not being taken into account, Miriam Ryan (TSO Member) clarified that the definition of Registered Capacity is the maximum MW you can provide at the connection point and losses are taken into account by measuring at the HV side. The UK Code, the codes across the Continent and the Network Codes all declare Registered Capacity in whole MW.
- c) Another conversation took place on Maximum Export Capacity versus installed capacity. Miriam Ryan (TSO Member) clarified that Registered Capacity is considered to be the lower of the two in practice. All other Grid Code requirements hinge on the Registered Capacity.
- d) Karl O'Keeffe (Interconnector) noted that the value of Registered Capacity is rounded to a whole number in favour of the generator.
- e) Peter King (Non-Synchronous Renewable Generators) added the use of Registered Capacity and MEC is not clear in the Grid Code whereas it is clearly defined in the Distribution Code.
- f) Mark Coleman (Non-Synchronous Renewable Generators) further added that in the case of a Windfarm's MEC, it is always Registered Capacity.



- g) Karl O’Keeffe (Interconnector) advised that the MEC is established at the very early stages of a project when securing MW on the system, but what is installed later in the project can differ slightly, and if less, then this becomes the Registered Capacity. It is important for the control centre to know the absolute MWs they are dealing with. Registered Capacity is in the control of the TSO.
- h) Anne Trotter (TSO Member) further advised that in such a case an update can be made to the connection agreement.
- i) William Carr (Pumped Storage) queried the possible need to establish an importing or charging Registered Capacity.
- j) Miriam Ryan (TSO Member) noted that currently the Registered Capacity only refers to exporting units and a unit on import is currently seen as a load. She further recommended comments to be submitted to the TSO as part of this conversation.
- k) Éanna Farrell (TSO Presenter) confirmed that the DCC is introducing requirements based on Maximum Import Capacity.
- l) Currently the definition of Registered Capacity has no relevance to the Distribution System under the DCC but this may evolve over time.
- m) **ACTION:** The TSO will circulate a discussion paper on Registered Capacity. The TSO welcomes industry feedback. Following this the TSO will bring back a full interpretation paper on Registered Capacity next year.

## 10. CRU Update

- a) Following on from this morning’s update, Dylan Ashe (CRU) provided further updates:
  - the ECP 2 consultation is coming up;
  - the CRU will soon issue a decision on location scalars; and
  - following on from queries regarding the time frame for the approval of modification recommendations, the intention of the CRU is to approve within six weeks of receipt of the recommendation.

## 11. AOB

- a) **ACTION:** The TSO to consider including a definition for ACER in the Grid Code.
- b) **ACTION:** The TSO is to look at clarifying the application of controllability down to 1 MW to Battery Storage.