

Minutes of the Ireland Grid Code Review Panel (GCRP) Meeting
EirGrid Offices, The Oval, 160 Shelbourne Road, Dublin 4
12 April 2019

Member Attendance:

<u>Name</u>	<u>Present</u>	<u>Role</u>	<u>Company</u>
Arthur Moynihan	Y	Ireland GCRP Chair	EirGrid
Miriam Ryan	Y	TSO Representative	EirGrid
Anne Trotter	N	TSO Representative	EirGrid
Michael McCormack	Y	Grid Connected Thermal Generators	Bord na Móna
Position open		Grid Connected Thermal Generators	
Rory Griffin	N	Grid Connected CCGT Generators	Bord Gais Energy
Colin D’Arcy	N	Grid Connected CCGT Generators	Energia
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	Y	Grid Connected Fast Peaking Plants	SSE
Jim Wynne	N	ESB PES	Electric Ireland
Position open		Independent Electricity	

		Supplier	
Cormac Fitzpatrick	Y	Transmission Asset Owner	ESB Networks TAO
David Lindsay alternate for Robert O'Rourke	Y	Regulator	CRU
Karl O'Keeffe	Y	Irl - Interconnector Owner	East-West Interconnector
Deirdre Hughes	Y	Market Operator	SEMO
Tony Hearne	Y	Distribution System Operator	ESB Networks
Paddy Finn	Y	Grid Connected Demand Side Units	Electricity Exchange
Alan Foley	N	Grid Connected Demand Side Units	Veolia
Kenneth Matthews	N	Grid Connected Demand Customers	Amazon

Other Attendees:

<u>Name</u>	<u>Present</u>	<u>Role</u>	<u>Company</u>
Arlene Chawke	Y	GCRP Secretary	EirGrid
Éanna Farrell	Y	TSO Presenter	EirGrid
Ronan Keating	Y	TSO Observer	EirGrid

1. Introduction to Ireland GCRP Meeting & Approval of Minutes

- a) Arthur Moynihan (EirGrid - Chair) welcomed all members, observers and presenters to the meeting.
- b) The Minutes from the previous meeting had been circulated, no comments had been received and the Minutes had been deemed approved.

2. Proposed Modification MPID 275 - the Integration of Network Codes RfG into the Grid Code

Introduction

- a) To begin Miriam Ryan (EirGrid) presented the background to the Requirements for Generators (RfG) Network Code and to whom these requirements apply to. She presented a short summary on the consultation process that was jointly held by EirGrid and ESB Networks. She further explained that the CRU approved the consultation proposal paper on 26 November 2018.

Incorporative Method

- a) Éanna Farrell (EirGrid) presented the method chosen by EirGrid to best incorporate the approved Requirements for Generators into the Ireland Grid Code. The method allows EirGrid to future-proof additional Network Code requirements such as the Demand Connection Code and the HVDC into the Grid Code.
- b) William Carr (ESB GWM) noted that the method reads well and will work well into the future.
- c) Tony Hearne (ESB Networks) added that the DSO intends to undergo an exercise to restructure the layout of the Distribution Code and to make clear divisions for PPMs and SPMs when they are incorporating the RfG into their code.
- d) Mark Coleman (SSER) noted that incorporating all the requirements into one document makes for a user-friendly document. He also liked the RfG Article Incorporation Locations table and requested that this table be made available to all Users.
- e) **ACTION: The TSO to make the RfG Article Incorporation Locations table available on the EirGrid website.**
- f) Arthur Moynihan (EirGrid – Chair) further explained that the intention of the TSO was not to transfer large sections of the RfG Code into the Grid Code but to incorporate the requirements into the existing Grid Code and to reflect the intent of the requirements. The current Ireland Grid Code is version 7.
- g) **ACTION: On issue of a new version of the Grid Code the TSO is to ensure that a notice is circulated to all customers.**
- h) Éanna Farrell (EirGrid) went on to review and discuss the comments that were received from participants in advance of the GCRP meeting.

Comments Received (1) – CC7.3.1.1

- a) Participants had no further comment and are happy with the TSO response as per the slide.

Comments Received (2) – CC7.3.2.1 - 3

- a) Participants had no further comment and are happy with the TSO response as per the slide.

Comments Received (3) – PPM1.3. 2

- a) Participants had no further comment and are happy with the TSO response as per the slide.

Comments Received (4) – PPM1.4. 2

Graph

- a) Arthur Moynihan (EirGrid – Chair) stated that the TSO recognises there is a conflict here and that a gap does exist between 85% and 90%.
- b) Miriam Ryan (EirGrid) added that the unit is not required to stay on at 85% if potential damage will be caused to the unit after 3 seconds.
- c) Arthur Moynihan (EirGrid- Chair) noted that normal operation is down to 90% voltage, during a fault the unit should ride through in accordance with performance in the graph. After 3 seconds, normal operation parameters will apply.
- d) Tony Hearne (ESBN) noted that most faults on the transmission system would likely be cleared much sooner than 3 seconds.
- e) Miriam Ryan (EirGrid) further added that most faults are cleared within 110 milliseconds.

Wording

- f) Peter King (Ionic Consulting) requested that a clarification be issued in order to avoid any confusion i.e. should the text refer to the provision of “minimum system strength”?
- g) **ACTION: Arthur Moynihan (EirGrid –Chair) noted that a clarification will be issued as part of the meeting Minutes.**
POST MEETING NOTE: The RfG requirement to specify pre-fault and post-fault conditions will be met by the minimum system strength data issued by TSO.
- h) **ACTION: Arthur Moynihan (EirGrid –Chair) further agreed to review the wording of the clause.**
POST MEETING NOTE: Parts (i), (ii) and (iii) of PPM1.4.2(f) detail the information that TSO is obligated to share with Generators under RfG. This will form part of the minimum system strength data specified for the pre-fault and post-fault conditions.

Comments Received (5) – PPM1.5.2.1

- a) Peter King (Iconic Consulting) raised a concern that this requirement potentially opens up unfairness in the performance monitoring and the re-categorisation of non-RfG units versus RfG units. Non-RfG units can be re-categorised for going into manual control mode and therefore RfG units have an unfair advantage.

POST MEETING UPDATE: Text now updated to include “Best endeavours shall be made to resolve the loss of automatic remote control in as quick a timeframe as possible.”

- b) Karl O’Keeffe (EWIC) pointed out that from his previous work on the TSO testing and compliance team that a PPM has two weeks to rectify a performance monitoring issue before being re-categorised. He also commented that he is aware that the testing team are reviewing current processes and procedures.

Comments Received (6) – PPM1.5.3.1

- a) Participants had no further comment and are happy with the TSO response as per the slide.

Comments Received (7) – FSM, LFSM-O and LFSM-U

- a) Arthur Moynihan (EirGrid - Chair) clarified that Battery Storage is not subject to RfG, it is exempt.
- b) Miriam Ryan (EirGrid) further added that an ENTSO-E Battery Storage working group has been recently established. Furthermore until new requirements come into force the current Grid Code will apply.
- c) Following on from a discussion it was recommended that the TSO map curve 1 and curve 2 to the three new control modes and to develop a matrix to add clarity to the control logic.
- d) **ACTION: 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.**

Comments Received (8) – PPM1.6.2.2

- a) Arthur Moynihan (EirGrid - Chair) explained that the PPM has 20 seconds to respond to a set point change request. When there is a change in system conditions i.e. voltage step change, the PPM has 1 second to achieve 90% reactive power response. In relation to Power Factor, the step change will be in active power output.
- b) The members were happy with the TSO clarification. The TSO intends to change the wording ‘Power Factor setpoint’ to ‘Active Power output’.

- c) **ACTION: The TSO to revise the text to make the requirement clearer.**

POST MEETING NOTE: The reactive power control modes described in PPM1.6.2.2 are now updated to reflect RfG more accurately.

Comments Received (9) – PPM1.7.1.5

- a) Éanna Farrell (EirGrid) further added that Users will be notified when the new signal lists are fully developed.
- b) No further comments were made by the members.

Miriam Ryan (EirGrid) presented the advanced comments received from the CCGT members. The CCGT members were unable to attend the GCRP meeting and Miriam Ryan (EirGrid) noted their apologies.

Comments Received (10 and 11) – Article 13.4 and Article 13.5

- a) The CCGT members have stated that they have been advised via the EUTurbines group that this requirement is not technically feasible for CCGT technology.
- b) The CCGT members welcomed the change of wording proposed by the TSO which captures the ambient condition correction curves that will be used but the proposed clause still remains a big concern for the CCGT group.
- c) Overall, the CCGT members have stated that they cannot support the proposed clause or the revised proposed clause in relation to Admissible Active Power Reduction with failing frequency.
- d) William Carr (ESB GWM) reiterated the push back received from the OEMs on this requirement.
- e) Miriam Ryan (EirGrid) stated that ENTSO-E have assured EirGrid that the OEMs were part of the original discussions in the development of this requirement.

Further Comments

- a) **ACTION: Following a query from Mark Coleman (SSER) on the Frequency Curves, Éanna Farrell (EirGrid) clarified that an internal working group has been established to look at this and the TSO will bring their results back to the next GCRP meeting.**
- b) Arthur Moynihan (EirGrid - Chair) advised that the TSO would update some of the redline text changes to reflect the discussion at the Grid Code Review Panel meeting and circulate with the Minutes of the meeting for further comment. Following this, the TSO will issue a recommendation paper on this modification to the CRU.
- c) **ACTION: EirGrid will circulate a revised red line version of proposed Grid Code Version 8 together with the Minutes of this meeting. Following receipt of the documents the members will have 10 working days to provide comments. Following this time frame EirGrid will issue a recommendation paper to the CRU.**

RfG Derogations (1), (2) and (3)

- a) Miriam Ryan (EirGrid) discussed the three RfG derogation applications that EirGrid intend to issue to the CRU. With regard to the derogation application against Articles 16 and 25 (voltage withstand capability) Miriam Ryan (EirGrid) commented that more System Operators will require a similar derogation as an increasing number of renewables connect to their system.
- b) Arthur Moynihan (EirGrid – Chair) noted that the derogations will apply to RfG version 1.

Substantial Modification (1) and (2)

- a) Miriam Ryan (EirGrid) presented slides on the term Substantial Modification. The term is not defined in the RfG. The TSO are seeking member views as to what constitutes a substantial modification under the Network Codes. The TSO are keen to take a practical approach to the application of the term.
- b) William Carr (ESB GWM) suggested that a good starting point is the repowering of a unit.
- c) Peter King (Ionic Consulting) noted that an upgrade to a SCADA system should not constitute a substantial modification.
- d) Mark Coleman (SSER) further added that a software upgrade for DS3 will change the characteristics of a unit but should not constitute a Substantial Modification; likewise a software upgrade for security reasons should not constitute a Substantial Modification.
- e) Karl O’Keeffe (EWIC) posed the question should adding a new controller to existing turbines be deemed a Substantial Modification?
- f) Mark Coleman (SSER) further noted that the step up from the current Grid Code to the RfG requirements is not that big.
- g) Tony Hearne (DSO) added in relation to extensions how will the TSO apply a mix of Grid Code and RfG Requirements to a site?
- h) Cormac Fitzpatrick (TAO) recommended a financial approach based on an investment decision.
- i) Miriam Ryan (EirGrid) noted that EirGrid will set up an internal working group to look at this and she encouraged members to send in their feedback in advance of this.
- j) **ACTION: Members to submit feedback on the definition of the term Substantial Modification.**
- k) Arthur Moynihan (EirGrid – Chair) further added that this piece of work needs to be done as soon as possible and that Substantial Modification applies to all three codes (RfG, DCC and HVDC).

3. CRU Updates

- a) There was no Regulatory update.

4. AOB

- a) Paddy Finn (Electricity Exchange) requested further information from the TSO and DSO on the requirements to install a TSO RTU down to 1 MW and the rules governing the controllability of units down to 1 MW and an insight into what use will be made of this controllability. He further stated to install a TSO RTU is hugely expensive
- b) **ACTION: Miriam Ryan (EirGrid) will take this away and will respond to Paddy. This should be a joint response with the DSO**
- c) Tony Hearne (DSO) suggested to Paddy Finn that he request a member position on the DCRP.
- d) Cormac Fitzpatrick (TAO) suggested that a reasonable start to the definition of Substantial Modification is the doubling of capacity and to work backwards from there.
- e) **ACTION: Mark Coleman (SSER) requested that the TSO take an action to have Battery Storage represented on the GCRP.**
- f) **ACTION: Arthur Moynihan (EirGrid – Chair) to follow up on a previous query from Peter King on the Registered Capacity and Reactive Power Capability of Battery Storage systems.**
- g) Arthur Moynihan (EirGrid – Chair) noted that a FlexTech Industry Forum has been set up by EirGrid and SONI to address technical, policy and commercial issues effecting the integration of renewables such as Hybrid, Storage, Data Centres and DSM. This initiative is expected to launch with an industry forum in Q2 2019.