


Grid Code Modification Proposal Form Email to gridcode@eirgrid.com			
Title of Modification Proposal: Incorporation of the DCC requirements into the Grid Code			
MPID (EirGrid Use Only): MPID276_a			
Date:	20 th December 2019		
Company Name:	EirGrid		
Applicant Name:	Miriam Ryan		
Email Address:	miriam.ryan@eirgrid.com	Tel:	01 2370315
Recommended at GCRP Meeting:	Ireland GCRP Meeting – 19/11/19		
Grid Code Version:	8.0		
Grid Code Section(s) Impacted by Modification Proposal:	Various – further details are available in the document entitled “MPID276_a_GC9_DCC_Article_Incorporation_Locations”, as attached to the submission email.		
Modification Proposal Justification: <p><u>Background</u></p> <p>Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection (hereafter referred to as DCC) aims to establish a set of common, minimum requirements and principles for demand connections across EU Member states to enable the appropriate use of demand facilities’ and distribution systems’ capabilities to increase system security, facilitate trade and assist in the integration of renewable sources.</p> <p>The CRU issued a decision to extend the “existing classification” date to 7th September 2019, in line with the full go-live date of the DCC. This means that for all relevant demand connections connecting after the 7th September 2019 the DCC requirements will apply, unless the facility owner has concluded a final and binding contract for purchase of the main plant before the 7th September 2019 and has provided evidence of same as required by DCC.</p> <p>A Non-DCC Unit does not have to comply with DCC, and is defined as:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>A Demand Facility, Closed Distribution System or Distribution System with a signed Connection Agreement:</p> <ol style="list-style-type: none"> Connected to the Network on or before the 7th September 2019; or Whose owner has concluded a final and binding contract for the purchase of the main Plant on or before the 7th September 2019 and provides evidence of same, as acknowledged by the TSO, on or before the 7th March 2020. Such evidence shall at least contain the contract title, its date of signature and date of entry into force, and the specifications of the main Plant to be constructed, assembled, or purchased; or Is an exception to the applicability of the DCC Unit requirements and is a Non-DCC Unit such as a Pumped Storage Unit that has both generating and pumping operation mode. <p>An existing Demand Facility, Closed Distribution System or Distribution System that undergoes modernisation, refurbishment or replacement of equipment which drives a modification to its Connection Agreement, and has concluded a final and binding contract for the purchase of the Plant being modified after the 7th September 2019 will be deemed</p> </div>			

a **DCC Unit**, unless the **Plant** being modified is one of the exceptions listed in c) above.

If an existing **Demand Facility** undergoes modernisation, refurbishment or replacement of equipment, part or all of the DCC requirements will apply to the appropriate item of **Plant** or **Apparatus**.

If an existing **Closed Distribution System** or **Distribution System** undergoes modernisation, refurbishment or replacement of equipment, part or all of the DCC requirements will apply to the appropriate item of **Plant** or **Apparatus** at the **Facility**.

A **DCC Unit** does have to comply with DCC, and is defined as:

A **Demand Facility**, **Closed Distribution System** or **Distribution System** that is not a **Non-DCC Unit**.

A **Pumped Storage Unit** which only operates as **Pumped Storage Plant Demand**, and does not meet **Non-DCC Unit** criteria, is classified as a **DCC Unit**.

It is important to note that, as per Article 4 of DCC, following modernisation, refurbishment or replacement of equipment to a non-DCC Unit, some or all of the DCC requirements may become applicable.

The full text of the DCC is available on the [ENSTO-E website](#).

Consultation and approval of submitted parameters

While the DCC requires the TSO and DSO to consult on some of the non-exhaustive and/or non-mandatory parameters of the DCC, in the interests of openness and transparency, the TSO and DSO decided to consult on all of the non-exhaustive and/or non-mandatory parameters of the DCC. To that end, on the 6th of July 2018, EirGrid, as TSO, and ESB Networks, as DSO, issued a joint consultation paper on the proposal for the general application of technical requirements in accordance with Articles 12-21 and 27-30 of the DCC. This consultation was open for a period of five weeks until the 10th of August 2018.

The TSO received a total of 2 individual submissions. A summary of the submissions was included in the EirGrid DCC proposal submission to the CRU on the 20th of September 2018. ESB Networks made a separate DCC proposal submission to CRU, dated 17th September 2018.

On 12th September 2019, the CRU issued a decision paper which approved majority of the submitted proposals, and issued a request for amendment and/or further information in relation to the following:

- Article 18.3;
- Article 19.1;
- Article 19.4 (a) and (c);
- Article 28.2 (e) and (l); and
- Article 29.2 (d) and (e).

Following the issuing of the CRU decision paper, EirGrid proceeded with the incorporation of the approved proposals into the Grid Code, with the exception of Articles 27 – 30.

During the incorporation process, it was decided that further assessment was required to determine whether or not, it is appropriate to incorporate the Demand Response Services, as described in DCC Articles 27 -30, into the Grid Code . Demand Response Services are an optional requirement for Demand Units, which is not in keeping with the mandatory nature of the Grid Code. Another consideration is the presence of an existing demand response scheme, provided by DSUs via the DS3 programme. EirGrid will communicate a position to the GCRP following the completion of the necessary assessment of how to effectively implement these

Demand Response Services requirements.

Please note that the relevant consultation, proposal and decision paper are available on the [Network Codes page](#) of the EirGrid website. Please scroll down to the consultation sections for further details.

On 19 November 2019, the GCRP meeting was held at the SONI Offices in Belfast. A presentation on MPID 276_a was presented, and further questions were fielded by meeting attendees on the incorporation of the DCC requirements into the Grid Code.

On 3 December 2019, minutes of the GCRP meeting on 19/11/2019 were issued along with the green and red line versions of the Grid Code for MPID 276_a.

The deadline for comments on the minutes from the GCRP meeting was 17/12/2019. No comments were received, and the minutes were deemed to be approved.

Planned derogations

1. Article 13.1 - Voltage Withstand Capability:

Article 13.1 refers to Annex II which show a maximum voltage withstand capability of 1.118 p.u. for connections greater or equal to 110 kV and below 300 kV. In the case of 220 kV, this would require equipment to be able to continually withstand 246 kV.

It is important to note that under the existing Grid Code clauses CC.8.3.1 and CC.8.3.2, the maximum transmission system voltages are nominally 240 kV and 245 kV during normal conditions and following transmission faults respectively. As such, the transmission system would not be continuously operated at 246 kV.

In addition, 220 kV equipment is only able to withstand 245 kV on a continuous basis. To comply with the RfG requirement of 246 kV, 300kV equipment would have to be used at 220 kV level. This would place a substantial and unnecessary cost on any 220 kV installations going forward. EirGrid is now planning to submit a class derogation to address this, which would align the voltage withstand capability requirements for new plant with the existing Grid Code requirements.

Please note that a similar derogation is also being sought in relation to the RfG Connection Network Code.

Formatting

EirGrid have continued the use of the “incorporative method” for the DCC requirements, which was previously used to harmonise the RfG requirements with the Grid Code. This method uses a combination of symbols as well as the enclosing of text in boxes to identify requirements that are:

1. Applicable to all users
2. Applicable to Non-DCC Units only
3. Applicable to DCC Units only

A more detailed description of the Incorporative methodology, as well as how it can be used for future versions of the Network Codes, is available in the document

“DemarcationAndFutureHarmonisationMethodology”, as attached to the submission email.

Finally, in order to maintain the usability of the Grid Code throughout the incorporative process for DCC, where needed, EirGrid has updated the formatting and numbering of the relevant sections.

Summary note of any objections to the recommended change from the GCRP members or Consultation Responses:

There were no objections to the proposed recommended change from the GCRP members at the GCRP meeting.

Post the GCRP, concerns were raised by the ESBN (DSO) in relation to the application of the DCC to the Distribution System, following the modernisation, refurbishment or replacement of equipment. The DSO was concerned that the proposed definitions of DCC Unit and Non-DCC Unit could be mis-interpreted as applying to the Distribution System as a whole, rather than applying to the plant which was under the modernisation, refurbishment or replacement of equipment.

Following a series of meetings and email correspondence, a modification to the definition of Non-DCC Unit was agreed between EirGrid and ESBN. It was agreed to include the term “at the **Facility**” which would limit the application of the DCC to the Connection site which is undergoing the modernisation or refurbishment in question.

The full text of the definitions is shown in the “Modification Proposal Justification” section above.

Outcome of any GCRP Meeting Actions Relating to the Recommended Modification:

Clarification of the use of the terms “Non-Network Code Users” and “Network Code User” in the section entitled “Demarcation of Requirements” was sought and it was asked if these terms needed to be included in the Grid Code list of definitions. EirGrid agreed to review the use of these terms.

Post the GCRP, the TSO reviewed the use of the two terms and have revised the Demarcation section to remove them.

Red-line Version of Impacted Grid Code Section(s) - show proposed changes to text:

See document entitled “MPID276_GC9 Red Line Version” attached to the GCRP invitation email.

Green-line Version of Impacted Grid Code Section(s) - show proposed final text:

See document entitled “MPID276_GC9 Green Line Version” attached to the GCRP invitation email.