Grid Code Modification Recommendation Form



Title of Recommended Proposal:

MPID 290 Incorporation of the HVDC Derogation Process into the Grid Code

MPID: 290

Date:	10 May 2021
Recommended at GCRP Meeting	01/2021 (meeting dated 23 March 2021)
No.:	
Grid Code Version:	Version 9 of the Grid Code was the current version when this
	modification was proposed and recommended.
Grid Code Section(s) Impacted by	GC.9 Derogations
Recommended Proposal:	
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The Reason for the Recommended Modification:

The Commission Regulation (EU) 2016/1447 of 26 August 2016 establishes a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (hereafter referred to as HVDC). The HVDC aims to ensure fair conditions of competition in the internal electricity market, to ensure system security and the integration of renewable electricity sources.

For reference, the full text of the HVDC is available on the ENSTO-E website.

This modification recommendation paper covers the incorporation of the Derogation Process, as described in the HVDC Articles 77 to 83. This paper describes the requirements that Interconnector Owners and Generators who own DC-connected PPMs, the TSO and the CRU must comply with when applying for derogations.

Separately EirGrid will develop an EirGrid business process to support Interconnector Owners and Generators during the derogation procedure. Interconnector Owners and Generators should use the CNCD2 application form when requesting a derogation. The TSO will use the CNCD3 application from to initiate HVDC class derogations. These forms are available on the <u>EirGrid website</u>.

It is important to note that two separate derogation processes will apply for Interconnector Owners and Generators, depending on whether they are Non-HVDC or HVDC Units. Both procedures are described under Grid Code section GC.9 Derogations.

When reading the red-line and green-line text below, please be aware that the process referred to in GC.9.1 applies to existing Users only, whereas the derogation procedure in GC.9.5 applies to Interconnectors and DC-connected PPMs only.

Formatting

EirGrid have continued the use of the "incorporative method" for the HVDC requirements, which was previously used to harmonise the RfG and DCC 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-HVDC Units only
- 3. Applicable to HVDC 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 email recommending the modifications from the GCRP meeting, dated 23 March 2021.

History of Progression through GCRPs, Working Group and/or Consultation:

GCRP Meeting 23 March 2021

The Grid Code modification proposal, MPID 290, was presented to the members at the GCRP meeting that took place on 23 March 2021. The members agreed with the proposed changes.

Summary Note of any Objections to the Recommended Change from GCRP Members or Consultation Responses:

There were no objections raised by the GCRP members in relation to the recommended modification, MPID 290.

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

Karl O'Keeffe, the Interconnector Member, pointed out that an Interconnector will struggle to develop a Cost Benefit Analysis (CBA) and will struggle to assess the impact on cross-border trade without the assistance of the TSO, both of which are required when completing a derogation application. The TSO agreed that a collaborative approach is essential and furthermore the TSO will assist the Interconnector in the development of the CBA and in the assessment of the impact on cross-border trade.

Red-line Version of Impacted Grid Code Section(s) - show recommended changes to text: Deleted text in strike through red font and new text highlighted in blue font

GC.9.1 The following process is for all **Users** except **RfG Generation Units** and **DCC Units** and **HVDC Units** and **DC-Connected PPMs.**

GC.9.5 Interconnector and DC-connected PPM Derogation Procedure

GC.9.5.1	Power to Grant Derogations
	CRU may, at the request of an Interconnector Owner, Generator, or the TSO, grant an
	Interconnector, DC-connected PPM or the TSO, derogations from one or more HVDC
	clauses in the Grid Code for HVDC Units and Non-HVDC Units in accordance with
	GC.9.5.3 and GC.9.5.4. Derogations may be granted and revoked in accordance with
	GC.9.5.2, GC.9.5.3, GC.9.5.4 and GC.9.5.5 by authorities other than the CRU.
GC.9.5.2	General Provisions
GC.9.5.2.1	The criteria specified by CRU to assess derogations pursuant to GC.9.5.3 and GC.9.5.4
	are specified in form CNCD2 and CNCD3 respectively.
GC.9.5.2.2	If CRU deems that it is necessary, due to a change in circumstances relating to the
	evolution of system requirements, it may review and amend, at most once every year,
	the criteria for granting derogations as referenced in GC.9.5.2.1. Any changes to the
	criteria shall not apply to derogations, for which a request has already been made.
GC.9.5.2.3	The CRU may decide, that Interconnectors or DC-connected PPMs for which a request
	for a derogation has been filed, pursuant to GC.9.5.3 or GC.9.5.4, do not need to
	comply with HVDC Unit clauses in the Grid Code, from which a derogation has been
	sought, from the day of filing the request, until the CRU 's decision is issued.
GC.9.5.3	Request for a Derogation by an Interconnector Owner or a Generator:
GC.9.5.3.1	An Interconnector Owner or a Generator may request a derogation from one, or
00.3.3.3.1	several, relevant clauses in the Grid Code , for an Interconnector or a DC-connected
	PPM.
GC.9.5.3.2	A request for a derogation shall be filed with the TSO , using form CNCD2 and include:
	(a) an identification of Interconnector Owner or Generator and a contact person for
	any communications;
	(b) a description of the Interconnector or DC-connected PPM for which a derogation is
	requested;
	(c) a reference to the relevant clauses in the Grid Code from which a derogation is
	requested and a detailed description of the requested derogation;
	(d) detailed reasoning, with relevant supporting documents and cost-benefit analysis;
	(e) demonstration that the requested derogation would have no adverse effect on
	cross-border trade; (f) In the case of a DC-connected PPM connected to one or more remote-end
	(1) in the case of a De-connected Frivi connected to one of more remote-end

	Interconnector Converter Stations, evidence that the Interconnector Converter
	Station will not be affected by the derogation or; alternatively, agreement from the
	Interconnector Converter Station Owner to the proposed derogation.
	In the case where a DC-connected PPM has, or will only have, a single connection to a
	single synchronous area (e) above will not apply. Within two weeks of receipt of a
	request for a derogation, the TSO shall confirm to the Interconnector Owner or
	Generator whether the request is complete. If the TSO considers that the request is
	incomplete, the Interconnector Owner or Generator shall submit the additional
	required information within one month, from the receipt of the request for additional
	information. If the Interconnector Owner or Generator, does not supply the
	requested information within that time limit, the request for derogation shall be deemed withdrawn.
GC.9.5.3.3	The TSO shall assess the request for derogation and the provided cost-benefit
	analysis, taking into account the criteria determined by the CRU pursuant to GC.9.5.2.
GC.9.5.3.4	Within six months of receipt of a request for derogation, the TSO shall forward the
	request to the CRU and submit the assessment(s) prepared in accordance with
	GC.9.5.3.3. That period may be extended by one month where the TSO seeks further
	information from the Interconnector Owner or Generator.
GC.9.5.3.5	The CRU shall adopt a decision concerning any request for derogation within six
	months from the day after it receives the request. That time limit may be extended by
	three months before its expiry where the CRU requires further information from the
	Interconnector Owner or Generator, or from any other interested parties. The
GC.9.5.3.6	additional period shall begin when the complete information has been received. The Interconnector Owner or Generator shall submit any additional information
GC.3.3.3.0	
	requested by the CRU within two months of such a request. If the Interconnector
	Owner or Generator does not supply the requested information within that time limit,
	the request for derogation shall be deemed withdrawn unless, before its expiry:
	(a) the CRU decides to provide an extension; or
	(b) the Interconnector Owner or Generator informs the CRU by means of a reasoned submission that the request for a derogation is complete.
	However, the CRU may attach conditions to the derogation including a condition that
	if the DC-connected PPM undergoes a development of a connection into a multi-
	terminal network or the connection of a further PPM at the same point this will cause
	the derogation to be re-evaluated by the CRU or to expire. The CRU shall take into
	account the need to optimise the configuration between the DC-connected PPM and
	the remote-end Interconnector Converter Station , as well as the legitimate
	expectations of the Generator when adopting a decision concerning a request for a
	derogation.
GC.9.5.3.7	The CRU shall issue a reasoned decision concerning a request for derogation. Where
	the CRU grants a derogation, it shall specify its duration.
GC.9.5.3.8	The CRU shall notify its decision to the relevant Interconnector Owner or Generator
	and the TSO .
GC.9.5.3.9	The CRU may revoke a decision granting a derogation, if the circumstances and

	underlying reasons no longer apply, or upon a reasoned recommendation of the European Commission, or reasoned recommendation by ACER, pursuant to GC.9.5.6.2.
GC.9.5.4	Request for a Derogation by the TSO
GC.9.5.4.1	The TSO may request derogations for classes of Interconnectors or DC-connected
	PPMs connected, or to be connected, to their Network.
GC.9.5.4.2	The TSO shall submit its requests for derogations, using form CNCD3, to the CRU . Each
	request for a derogation shall include:
	(a) identification of the TSO , and a contact person for any communications;
	(b) a description of the Interconnectors or DC-connected PPMs, for which a
	derogation is requested and the total installed capacity and number of
	Interconnectors or DC-connected PPMs;
	(c) the relevant clauses in the Grid Code for which a derogation is requested, with a
	detailed description of the requested derogation;
	(d) detailed reasoning, with all relevant supporting documents;
	(e) demonstration that the requested derogation would have no adverse effect on
	cross-border trade;
	(f) a cost-benefit analysis.
GC.9.5.4.3	The CRU shall adopt a decision concerning a request for derogation within six months,
	from the day after it receives the request.
GC.9.5.4.4	The six-month time limit referred to in GC.9.5.4.3 may, before its expiry, be extended by an additional three months where the CRU requests further information from the TSO requesting the derogation or from any other interested parties. That additional period shall run from the day following the date of receipt of the complete information.
	The TSO shall provide any additional information requested by the CRU within two months from the date of the request. If the TSO does not provide the requested additional information within that time limit, the request for derogation shall be deemed withdrawn unless, before expiry of the time limit:
	(a) the CRU decides to provide an extension; or
	(b) the TSO informs the CRU by means of a reasoned submission, that the request for derogation is complete.
GC.9.5.4.5	The CRU shall issue a reasoned decision concerning a request for derogation. Where
	the CRU grants a derogation, it shall specify its duration.
GC.9.5.4.6	The CRU shall notify its decision to the TSO and ACER.

GC.9.5.4.7	The CRU may lay down further requirements concerning the preparation of requests
	for derogation by the TSO . In doing so, the CRU shall take into account the delineation
	between the transmission system and the distribution system at the national level and
	shall consult with the DSO , the Interconnector Owners , Generator and stakeholders,
	including manufacturers.
GC.9.5.4.8	The CRU may revoke a decision granting a derogation, if the circumstances and
	underlying reasons no longer apply, or upon a reasoned recommendation of the
	European Commission, or reasoned recommendation by ACER, pursuant to GC.9.5.6.2
GC.9.5.5	Register of Derogations
GC.9.5.5.1	The CRU shall maintain a register of all derogations they have granted or refused and
	shall provide ACER with an updated and consolidated register, at least once every six
	months, a copy of which shall be given to ENTSO for Electricity.
GC.9.5.5.2	The register shall contain, in particular:
	(a) the requirement, or requirements, for which the derogation is granted, or refused;
	(b) the content of the derogation;
	(c) the reasons for granting, or refusing, the derogation;
	(d) the consequences resulting from granting the derogation.
GC.9.5.6	Monitoring of Derogations
GC.9.5.6.1	ACER shall monitor the procedure of granting derogations, with the cooperation of the
000500	CRU. The CRU shall provide ACER with all the information necessary for that purpose.
GC.9.5.6.2	ACER may issue a reasoned recommendation to the CRU , to revoke a derogation, due
	to a lack of justification. The European Commission may issue a reasoned
	recommendation, to the CRU , to revoke a derogation, due to a lack of justification.
GC.9.5.6.3	The European Commission may request ACER to report on the application of
	GC.9.5.6.1 and GC.9.5.6.2 and to provide reasons for requesting, or not requesting,
	derogations to be revoked.

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

GC.9.1 The following process is for all **Users** except **RfG Generation Units** and **DCC Units** and **HVDC Units** and DC-Connected **PPMs.**

 $\label{eq:GC.9.5} \textbf{Interconnector} \ \ \text{and} \ \ \text{DC-connected} \ \textbf{PPM} \ \ \text{Derogation} \ \ \text{Procedure}$

GC.9.5.1	Power to Grant Derogations
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	Interconnector, DC-connected PPM or the TSO, derogations from one or more HVDC
	clauses in the Grid Code for HVDC Units and Non-HVDC Units in accordance with
	GC.9.5.3 and GC.9.5.4. Derogations may be granted and revoked in accordance with
	GC.9.5.2, GC.9.5.3, GC.9.5.4 and GC.9.5.5 by authorities other than the CRU.
GC.9.5.2	<u>General Provisions</u>
GC.9.5.2.1	The criteria specified by CRU to assess derogations pursuant to GC.9.5.3 and GC.9.5.4
	are specified in form CNCD2 and CNCD3 respectively.
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	evolution of system requirements, it may review and amend, at most once every year,
	the criteria for granting derogations as referenced in GC.9.5.2.1. Any changes to the
	criteria shall not apply to derogations, for which a request has already been made.
GC.9.5.2.3	The CRU may decide, that Interconnectors or DC-connected PPMs for which a request
	for a derogation has been filed, pursuant to GC.9.5.3 or GC.9.5.4, do not need to
	comply with HVDC Unit clauses in the Grid Code , from which a derogation has been
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GC.9.5.3.1	An Interconnector Owner or a Generator may request a derogation from one, or
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	requested;
	(c) a reference to the relevant clauses in the Grid Code from which a derogation is
	requested and a detailed description of the requested derogation;
	(d) detailed reasoning, with relevant supporting documents and cost-benefit analysis;
	(e) demonstration that the requested derogation would have no adverse effect on cross-border trade;
	(f) In the case of a DC-connected PPM connected to one or more remote-end

Interconnector Converter Stations, evidence that the converter station will not be affected by the derogation or; alternatively, agreement from the converter station owner to the proposed derogation. In the case where a DC-connected **PPM** has, or will only have, a single connection to a single synchronous area (e) above will not apply. Within two weeks of receipt of a request for a derogation, the **TSO** shall confirm to the **Interconnector Owner** or **Generator** whether the request is complete. If the **TSO** considers that the request is incomplete, the Interconnector Owner or Generator shall submit the additional required information within one month, from the receipt of the request for additional information. If the Interconnector Owner or Generator, does not supply the requested information within that time limit, the request for derogation shall be deemed withdrawn. GC.9.5.3.3 The **TSO** shall assess the request for derogation and the provided cost-benefit analysis, taking into account the criteria determined by the **CRU** pursuant to GC.9.5.2. GC.9.5.3.4 Within six months of receipt of a request for derogation, the **TSO** shall forward the request to the CRU and submit the assessment(s) prepared in accordance with GC.9.5.3.3. That period may be extended by one month where the TSO seeks further information from the **Interconnector Owner** or **Generator**. GC.9.5.3.5 The CRU shall adopt a decision concerning any request for derogation within six months from the day after it receives the request. That time limit may be extended by three months before its expiry where the CRU requires further information from the Interconnector Owner or Generator, or from any other interested parties. The additional period shall begin when the complete information has been received. GC.9.5.3.6 The Interconnector Owner or Generator shall submit any additional information requested by the CRU within two months of such a request. If the Interconnector Owner or Generator does not supply the requested information within that time limit, the request for derogation shall be deemed withdrawn unless, before its expiry: (a) the **CRU** decides to provide an extension; or (b) the Interconnector Owner or Generator informs the CRU by means of a reasoned submission that the request for a derogation is complete. However, the CRU may attach conditions to the derogation including a condition that if the DC-connected PPM undergoes a development of a connection into a multiterminal network or the connection of a further PPM at the same point this will cause the derogation to be re-evaluated by the CRU or to expire. The CRU shall take into account the need to optimise the configuration between the DC-connected PPM and the remote-end Interconnector Converter Station, as well as the legitimate expectations of the Generator when adopting a decision concerning a request for a derogation. GC.9.5.3.7 The CRU shall issue a reasoned decision concerning a request for derogation. Where the CRU grants a derogation, it shall specify its duration. GC.9.5.3.8 The CRU shall notify its decision to the relevant Interconnector Owner or Generator and the **TSO**. GC.9.5.3.9 The CRU may revoke a decision granting a derogation, if the circumstances and

underlying reasons no longer apply, or upon a reasoned recommendation of the European Commission, or reasoned recommendation by ACER, pursuant to GC.9.5.6.2. GC.9.5.4 Request for a Derogation by the TSO GC.9.5.4.1 The **TSO** may request derogations for classes of **Interconnectors** or DC-connected **PPMs** connected, or to be connected, to their **Network**. GC.9.5.4.2 The **TSO** shall submit its requests for derogations, using form CNCD3, to the **CRU**. Each request for a derogation shall include: (a) identification of the **TSO**, and a contact person for any communications; (b) a description of the Interconnectors or DC-connected PPMs, for which a derogation is requested and the total installed capacity and number of Interconnectors or DC-connected PPMs; (c) the relevant clauses in the **Grid Code** for which a derogation is requested, with a detailed description of the requested derogation; (d) detailed reasoning, with all relevant supporting documents; (e) demonstration that the requested derogation would have no adverse effect on cross-border trade; (f) a cost-benefit analysis. GC.9.5.4.3 The **CRU** shall adopt a decision concerning a request for derogation within six months, from the day after it receives the request. GC.9.5.4.4 The six-month time limit referred to in GC.9.5.4.3 may, before its expiry, be extended by an additional three months where the CRU requests further information from the TSO requesting the derogation or from any other interested parties. That additional period shall run from the day following the date of receipt of the complete information. The **TSO** shall provide any additional information requested by the **CRU** within two months from the date of the request. If the TSO does not provide the requested additional information within that time limit, the request for derogation shall be deemed withdrawn unless, before expiry of the time limit: (a) the **CRU** decides to provide an extension; or (b) the **TSO** informs the **CRU** by means of a reasoned submission, that the request fdr derogation is complete. GC.9.5.4.5 The CRU shall issue a reasoned decision concerning a request for derogation. Where the **CRU** grants a derogation, it shall specify its duration.

GC.9.5.4.6	The CRU shall notify its decision to the TSO and ACER.
GC.9.5.4.7	The CRU may lay down further requirements concerning the preparation of requests
	for derogation by the TSO . In doing so, the CRU shall take into account the delineation
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	including manufacturers.
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	to a lack of justification. The European Commission may issue a reasoned
	recommendation, to the CRU , to revoke a derogation, due to a lack of justification.
GC.9.5.6.3	The European Commission may request ACER to report on the application of
	GC.9.5.6.1 and GC.9.5.6.2 and to provide reasons for requesting, or not requesting,
	derogations to be revoked.