

Proposals for amendments to the Demand Connection Code

Fields marked with * are mandatory.

Introduction

Important developments in the policies of decarbonisation of the European Union (EU) energy and transport sectors have taken place since the inception of the development of the first European Grid Connection Network Codes (GC NCs) in 2012.

In the framework of the Grid Connection European Stakeholder Committee (GC ESC), the European Commission proposed for ACER to initiate the process towards the amendment of the existing GC NCs in September 2022. The amendment process, as presented to the GC ESC is outlined in the Figure below:



Following the scoping phase, ACER published the Policy Paper on the revision of the network code on requirements for grid connection of generators and the network code on demand connection in September 2022. The Policy Paper aims to transparently indicate to stakeholders the key policy areas in which amendments are to be expected. Moreover, the Paper draws on the alternative policy options and provides recommendations and proposed actions for the amendment process.

[Access the ACER Policy Paper on the revision of the NC RfG and NC DC](#)

This consultation aims at gathering, from all interested stakeholders, concrete proposals for amendments to the Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a **Network Code on Demand Connection** ('NC DC').

For amendment proposals concerning Network Code on Requirements for Generators ('NC RfG'), please go to the form: [NC RfG](#).

Responses to this consultation should be submitted by 28 November 2022 23:59 CET.

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* Name of the stakeholder:

Eurelectric

* Contact person:

[REDACTED]

* Contact person's email address:

[REDACTED]

* Country of the stakeholder's headquarters or main country of operation:

Belgium

* Type of the stakeholder:

- ☐ Generator (including association)
- ☐ Consumer (including association)
- ☐ Transmission system operator (including association)
- ☐ Distribution system operator (including association)
- ☐ Manufacturers (including association)
- ☐ Academia/research institution
- ☐ Regulatory authority
- ☒ Other (please, elaborate)

Please, elaborate on your answer above, if necessary:

Association

* Do you consent to the publication of the stakeholder's name?

- ☒ Yes
- ☐ No

* Do you consent to the publication of provided answers?

- ☒ Yes
- ☐ No (please, note that your answer, without your name and organization, may be shared with the EU institutions and national authorities, drafting team members, and other persons or entities involved in the European Grid Connection Network Codes amendment process)

Instructions

Stakeholders are invited to submit their amendment proposals to the NC DC articles that they consider should be revised in a two-step process:

1. by inserting the proposed amendments in the provided Word file
2. by motivating/reasoning the proposed amendments through this online consultation form.

Both steps are mandatory for all amendment proposals.

(Where no amendment is proposed, the article text in the word file can be left unaltered and the cells in the consultation form can be left blank.)

The mandatory steps for submitting amendment proposals are detailed below. At the end of this section, you can find an example showing how to submit your proposals.

Step 1

Please include all your amendment proposals in the **Word file provided below using the Track Changes mode**. Once you edit the file and rename it with your stakeholder's name ("NC_DC_stakeholder_name"), please upload it in the last section of this form (FILE UPLOAD)

[Download the Word file \(NC DC\)](#)

Step 2

In addition, please use this form to motivate/reason your proposals, following the instructions:


Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 14(1)	1	2	3
Article 14(2)			
Article 14(3)			
Article 14(4)			
Article 14(5)			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

Please upload your file if necessary

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5 Select file to upload

1. Propose an amended wording of the relevant provision, as you provided in the Word file.
2. Provide the motivation/reasoning behind your proposal.
3. Indicate (if any) which other provisions of the NC DC are impacted and may need to be amended following your proposal.
4. Provide (if any) your proposals for adding new provisions to the relevant section of the Regulation, as you provided in the Word file.
5. Upload figures or tables if necessary; text inputs should be provided directly in the consultation form.

Example

This section shows an example of an input to the survey on the NC RfG. The input process is the same for the NC DC survey.

Stakeholder XYZ would like to propose an amendment to Article 27 of NC RfG. In their view, the meaning of the word "respectively" in this article is not clear. Following a two-step process, the stakeholder downloads the Word file from the Instruction section, turns on the Track Changes mode and edits the text (first step).



Article 27

System restoration requirements applicable to AC-connected offshore power park modules

The system restoration requirements laid down respectively in Article 14(4) and Article 15(5) shall apply to AC-connected offshore power park modules types B and C, respectively.

Article 28

General system management requirements applicable to AC-connected offshore power park modules

The general system management requirements laid down in Article 14(5), Article 15(6) and Article 16(4) shall apply to AC-connected offshore power park modules.

After saving the edited file on their device under the name "NC_RfG_Stakeholder_XYZ", the stakeholder uploads it in the FILE UPLOAD section.

Pages

Introduction	Instruction	Whereas	Definitions	TITLE I	TITLE II CH. 1	TITLE II
TITLE III	TITLE IV	TITLE V	TITLE VI	TITLE VII	Other	FILE UPLOAD

FILE UPLOAD

Please upload the Word file (downloaded from the *Instruction* section) containing all your amendments

The maximum file size is 1 MB

NC_RfG_Stakeholder_XYZ.docx

Select file to upload

Previous

Submit

The stakeholder proceeds to motivate/reason their proposal. As they would like to propose an amendment to Article 27 of NC RfG, they enter TITLE II CHAPTER 4 Section and insert the proposed amended wording and the reasoning (second step). As the proposed amendment of Article 27 does not affect other provisions, they leave the last column blank.

Pages

[Introduction](#)[Instruction](#)[Whereas](#)[Definitions](#)[TITLE I](#)[TITLE II CH. 1](#)[TITLE II CH. 2](#)[TITLE II CH. 3](#)[TITLE II CH. 4](#)[TITLE III](#)[TITLE IV](#)[TITLE V](#)[TITLE VI](#)[TITLE VII](#)[Other](#)[FILE UPLOAD](#)

TITLE II CHAPTER 4 - Requirements for offshore power park modules

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 23		//	//
Article 24		//	//
Article 25		//	//
Article 26		//	//
Article 27	The system restoration requirements laid down in Article 14(4) and Article 15(5) shall apply to AC-connected offshore power park modules types B and C, respectively.	The current wording of Article 27 refers to the provisions of Articles 14(4) and 15(5). However, it is unclear from the legal text how the respective application should be understood. Indicating that the requirements of Article 14(4) shall apply to offshore PPMs type B and requirements of Article 15(5) shall apply to offshore PPMs type C follows the internal logic of the NC RfG and corresponds with the capabilities of the units in question.	//
Article 28		//	//

As the survey is long,

1. you have the possibility to edit your answer after submission. When clicking on "submit", you will be given a contribution ID, which you can then use to access your contribution here. This allows you to proceed in steps.
2. we kindly suggest that you download the entire survey as .pdf (link on the right), prepare your answers and then upload them at once in the EU Survey Tool, to avoid a session timeout on submission.

The maximum length of each cell is 5000 characters. This is the maximum technical limit set by the EUsurvey tool, which cannot be increased.

Whereas Section

Please write your amendment proposal and the reasoning in the table below.

Numbers in the first column correspond with the recitals of the NC DC Whereas section

	Amendment proposal	Reasoning	Relation to other provisions
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			
(9)			
(10)			
(11)			
(12)			
(13)			
(14)			
(15)			
(16)			
(17)			
(18)			
(19)			
(20)			
(21)			
(22)			
(23)			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new recitals	Reasoning	Relation to other provisions
New recitals			

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 2(1)			
Article 2(2)	<p>NEW DEF</p> <p>'storage equipment' means equipment in an installation that makes it possible to store energy and defer its injection into the grid, regardless of whether it is connected to a consumer's internal grid and regardless of whether it has the technical and legal capacity to be reversible. It may be a synchronous or an electrical park, depending on whether it uses synchronous generators or inverters to connect to the grid respectively. It may be connected to the grid independently or in a hybrid installation.</p>	<p>These definitions are incorporated to develop Article 5 and include storage facilities.</p>	

Article 2(3)	<p>NEW DEF</p> <p>'Maximum storage equipment capacity' means the value of the maximum active power declared by the operator that can be permanently produced by the storage equipment while complying with the relevant technical requirements.</p>	<p>These definitions are incorporated to develop Article 5 and include storage facilities.</p> <p>Alternatively, the “capacity” of a storage system could be associated with an energy value rather than a power value. A storage system can never permanently produce/withdraw a certain amount of power due to its limited capacity. An alternative could be to replace “Maximum storage equipment capacity” and “Maximum import capacity of storage equipment” with Useful Capacity Storage System: the amount of energy that a storage system is able to exchange with the grid at the point of delivery. The useful capacity of a storage system can vary over the lifetime of the system. And “Maximum discharge power”: Maximum active power that a storage system can deliver to the grid at the point of delivery; it can vary depending on the SOC and “Maximum charging power”: Maximum active power that a storage system can draw from the grid at the point of delivery; it can vary depending on the SOC.</p>	
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Article 2(4)	<p>NEW DEF</p> <p>'Maximum import capacity of storage equipment' means the value of the maximum active power declared by the operator that can be permanently consumed by the storage equipment while simultaneously complying with the relevant technical requirements.</p>	<p>These definitions are incorporated to develop Article 5 and include storage facilities.</p>	
Article 2(5)	<p>NEW DEF</p> <p>'Electric vehicle charging point or installation' means the infrastructure necessary to safely conduct electrical energy between the electricity supply grid and the electric vehicle.</p>	<p>These definitions are incorporated to develop Article 5 and include Electric vehicle charging points</p>	
Article 2(6)	<p>NEW DEF</p> <p>'one-way electric vehicle charging point or installation' means the infrastructure necessary to safely conduct electrical energy from the electricity supply grid to the electric vehicle with demand-only behavior.</p>	<p>These definitions are incorporated to develop Article 5 and include Electric vehicle charging points</p>	

Article 2(7)	<p>NEW DEF</p> <p>Use or refer definition on ' fully integrated network components ', included on Directive (UE) 2019 /944 (network components integrated into the transmission or distribution system, including storage facilities, which are used for the sole purpose of ensuring secure and reliable operation of the transmission or distribution system, and not for balancing or congestion management purposes).</p>	<p>These definitions are incorporated to elaborate on Article 3 in which the exemptions are integrated.</p>	
Article 2(8)	<p>NEW DEF</p> <p>'bi-directional electric vehicle charging point or installation' means the infrastructure necessary to conduct electrical energy safely from the electricity supply grid to the electric vehicle and from the electric vehicle to the electricity supply grid with both generation and demand behavior.</p>	<p>These definitions are incorporated to develop Article 5 and include Electric vehicle charging points</p>	
Article 2(9)			
Article 2(10)			
Article 2(11)			
Article 2(12)			
Article 2(13)			

Article 2(14)			
Article 2(15)			
Article 2(16)			
Article 2(17)			
Article 2(18)			
Article 2(19)			
Article 2(20)			
Article 2(21)			
Article 2(22)			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new definitions	Reasoning	Relation to other provisions
New definitions	Use or refer to definition on 'energy storage', included on Directive (UE) 2019/944 (in the electricity system, deferring the final use of electricity to a time later than when it was generated, or the conversion of electrical energy into a form of energy that can be stored, the storage of that energy and the subsequent reconversion of that energy into electrical energy or its use as another energy carrier)	These definitions are incorporated to develop Article 5 and include storage facilities.	

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TITLE I - General provisions

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 1			
Article 3	<p>2. (d) storages owned by system operators which are considered as fully integrated elements serving the purpose of providing security of supply at specific points in the system and where they are not participating in electricity markets.</p> <p>DELETE:</p> <p>(b) storage devices, except pumped storage electricity generation modules in accordance with Article 5(2).</p>	<p>It is proposed that distribution batteries considered as "fully integrated elements" be exempted from ERW (EU) 2016/631 and instead, in order to introduce storage in these network codes, it is proposed that paragraph d be deleted.</p>	
Article 4			
Article 5	Article 5 (2) to be deleted.	<p>Current provision establishes that "Any pumping module within a pump-storage station that only provides pumping mode shall be subject to the requirements of this Regulation and shall be treated as a demand facility". Connection of pumping facilities should be precisely regulated in the Generation Connection NC. The mention of such assets in the present NC leads to unnecessary overlap and confusion.</p>	
Article 6			

Article 7	<p>NEW PROV2</p> <p>Application to storage facilities This Regulation shall apply to storage facilities withdrawing from the electricity grid and these facilities shall also be subject to the requirements for generators regulated in Regulation (EU) 2016 /631, considering their behaviour during the low frequency perturbation or emergency conditions to support the stability and balance of the system when injecting electricity into the grid.</p>	<p>It is proposed to include the treatment to be considered for storage units. For all storage systems with size includable in Type A and Type B PGMs, the technical specifications in detail shall be defined directly in EN 50549 family standards.</p>	
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Article 8	<p>NEW PROV</p> <p>Recommendations to address EV charging infrastructure grid connection bottlenecks:</p> <ul style="list-style-type: none"> o Requirements <ul style="list-style-type: none"> › Power reduction (V1G) <p>Curves in case of frequency drop (participation in the grid defence plans) – By default: Market base</p> <ul style="list-style-type: none"> › Power injection (V2G) curves in case of frequency drop (participation in the grid defence plans) - By default: Market base › Power increase curves in case of frequency increase (participation in the grid defence plans) - By default: Market base › Power consumption limitation by the DSO in case of grid contingency (ON/OFF and setpoint) 		
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Article 9	<p>NEW PROV</p> <p>The following requirements should be present for storage systems:</p> <ul style="list-style-type: none"> o Possibility of DSO to control Storage in case of grid emergency plans are activated <ul style="list-style-type: none"> › This possibility should be framed in the connection conditions (licensing) in agreement with the promoters, where limitations to injection can be anticipated. Otherwise, it should be ensured that any intervention with recourse to curtailment and redispatching (total or partial) complies with the rules established in the scope of the Internal Electricity Market Regulation, namely in what concerns to due compensations. › Furthermore, it should be clarified that this only applies to storage with direct connection to the public grid and when not framed in a context of individual /collective self-consumption or energy communities (which may use the public grid but with a self-consumption purpose). o Day ahead Programming 		
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Article 10	<p>OVERALL COMMENT:</p> <p>DSR facilities All reference in the DCC should be removed as all markets have qualification requirements and validation procedures. The present requirements only limit market participation.</p>		
Article 11			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New provisions	<p>Application to electric vehicle charging points</p> <p>Unidirectional charging points shall be considered in general as demand facilities, but they shall comply with requirements for generators in terms of system support and stability oriented functions. Bi-directional charging points shall also be fully subject to requirements for generators regulated in Regulation (EU) 2016/631.</p>	<p>It is proposed to include the treatment to be considered for electrical recharging points.</p>	

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TITLE II - Connection of transmission-connected demand facilities, transmission-connected distribution facilities and distribution systems

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 12			
Article 13			
Article 14			
Article 15			
Article 16			
Article 17			
Article 18			
Article 19			
Article 20			
Article 21			
Article 22			
Article 23			
Article 24			
Article 25			
Article 26			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New provisions			

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TITLE III - Connection of demand units used by a demand facility or a closed distribution system to provide demand response services to system operators

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 27	<p>Title III could be transferred within the new NC on DSR, alongside art 9 (with reference to point 1.d - provisions related to chapter 3.)</p> <p>All reference in the DCC to Demand Response should be removed as all markets have qualification requirements and validation procedures. The present requirements only limit market participation.</p>	<p>Most of the DER is and will be connected to DSO grids. We can say that these are also potential flexibility sources and their number will also be increasing very fast. Furthermore, technical local balancing on specified DSO grid area can be very important. It gives wider possibilities to use potential of local energy sources (or active customers - DSR) and also in relation to energy storage.</p> <p>Mentioned above large development of DER will also cause significant share of electricity to flow from the DSO grid to TSO grid. More and more energy will be produced locally and there are more flexibility possibilities from DER, that are also used locally. This will change situation in energy delivery and also attitude to some investment analysis.</p> <p>DSO network starts to be smart and equipping network users with smart meters and systems, thus enable the development of new services and products. In parallel,</p>	<p>Requirements for units providing demand side services (flexibility services) should be included in the future NC on Demand Side Flexibility</p> <p>According to the current legal framework, demand response services provided to the system operator by demand units are enumerated in a catalogue of Article 27(1) of NC DC.</p> <p>Technical requirements concerning the connection of units providing these services are laid down in Articles 28-30 of NC DC, should the unit fall under the scope of the NC DC</p> <p>All requirements for demand response services provided to the system operator by demand units should be included in the future NC on Demand Side Flexibility.</p> <p>Since the connection to the grid is a different aspect from the</p>

		<p>it should support customers that want to actively participate in the energy market, through aggregation, demand management, peer-to-peer trading, etc. There is a need for many new regulations, tools and products in this new area. The new regulations should be interrelated to each other and resulting from each other, which is possible only in a new code, developed from the beginning, based on a new approach to the sector and new conditions.</p>	<p>provision of services to SOs, we suggest carrying over the technical requirements to provide demand response services from the DCC Regulation to the new NC on Demand Side Flexibility. As a result, the scope of the RfG and DCC Regulations would be limited to capabilities for grid connection while all requirements set in prequalification processes for the provision of SO services would be in the new NC on Demand Side Flexibility.</p>
Article 28			
Article 29	Delete points (f) and (g)	<p>Points (f) and (g) should be part of an equipment technical standard document rather than a Network Code.</p>	
Article 30	Delete points (c)	<p>Point (c) should be part of an equipment technical standard document rather than a Network Code.</p>	
Article 31			
Article 32			
Article 33			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New provisions			

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TITLE IV - Compliance

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 34			
Article 35			
Article 36			
Article 37			
Article 38			
Article 39			
Article 40			
Article 41			
Article 42			
Article 43			
Article 44			
Article 45			
Article 46			
Article 47			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New provisions			

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TITLE V - Applications and derogations

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 48			
Article 49			
Article 50			
Article 51			
Article 52			
Article 53			
Article 54			
Article 55			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New provisions			

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TITLE VI - Non-binding guidance and monitoring of implementation

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 56			
Article 57			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New provisions			

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TITLE VII - Final provisions

Please write your amendment proposal and the reasoning in the table below.

	Amendment proposal	Reasoning	Relation to other provisions
Article 58			
Article 59			

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New provisions			

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ANNEX I

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
Amendments to Annex I			

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ANNEX II

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new articles in this section	Reasoning	Relation to other provisions
Amendments to Annex II			

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Other additional provisions

Please write your amendment proposal and the reasoning in the table below.

	Proposal for new provisions	Reasoning	Relation to other provisions
Other new provisions			

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FILE UPLOAD

Please upload the Word file (downloaded from the **Instructions** section) containing all your amendment proposals in the Track Changes mode.

The maximum file size is 1 MB

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