

Proposals for amendments to the Requirements for Generators

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) 2016/631 of 14 April 2016 establishing a **Network Code on Requirements for Grid Connection of Generators** ('NC RfG').

For amendment proposals concerning Network Code on Demand Connection, please go to the form: [NC DC](#).

Responses to this consultation should be submitted by 21 November 2022 23:59 CET.

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* Name of the stakeholder:

Green Power Denmark

* Contact person:

[REDACTED]

* Contact person's email address:

[REDACTED]

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

Denmark

* 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:

Green Power Denmark is a non-commercial business organization gathering around 1,500 members from across the green energy value chain. We represent distribution system operators (DSOs), companies in the renewable energy industry, owners and developers of renewable energy systems, electricity companies, energy trading companies, and companies that work to refine, convert, and store green electricity.

* 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 RfG 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_RfG_stakeholder_name"), please upload it in the last section of this form (FILE UPLOAD)

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

Step 2

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

General requirements for type B power-generating modules

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
4	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 RfG 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

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 RfG Whereas section

	Amendment proposal	Reasoning	Relation to other provisions
(1)			
(2)			
(3)			
(4)			
(5)			
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(28)			
(29)			
(30)			
(31)			

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)			
Article 2(3)			
Article 2(4)			
Article 2(5)			
Article 2(6)			
Article 2(7)			
Article 2(8)			
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)			
Article 2(23)			
Article 2(24)			
Article 2(25)			
Article 2(26)			

Article 2(27)			
Article 2(28)			
Article 2(29)			
Article 2(30)			
Article 2(31)			
Article 2(32)			
Article 2(33)			
Article 2(34)			
Article 2(35)			
Article 2(36)			
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Article 2(56)			
Article 2(57)			
Article 2(58)			
Article 2(59)			
Article 2(60)			
Article 2(61)			
Article 2(62)			
Article 2(63)			
Article 2(64)			
Article 2(65)			

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

	Proposal for new definitions	Reasoning	Relation to other provisions
New definitions			

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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	The scope of application laid down in Article 3(2)(d) shall be adjusted so that the Regulation applies to storage devices including V2G chargers	Seen from the perspective of the grid, the technology behind the POC has little variance in how it affects the grid. The requirements for modules injecting power into the grid should be harmonized, independent of the technology	
Article 4	The definition of existing power-generating modules laid down in Article 4(2) shall apply for power-generating modules facility owners which has concluded a final and binding grid connection agreement, instead of a contract for the purchase of the main generating plant.	The current wording of the Article 4 (2) does not include power-generating modules in process of connecting while an amendment is made to the Regulation. Which results in power facility owners, having to implement possible different requirements, unknown during the initial project phase.	Article 7(7).
Article 5	The voltage of the connection point should not affect the significance of the power-generating modules as laid out in Article 5(2)	With a growing interest in MCS, smaller power-generating modules will be connected at voltage levels above 110 kV, however the significance of the unit will not change as seen from the grid.	
Article 6			

Article 7	Article 7(7) should except existing power-generating modules for amendments.	To ensure that the power facility owner is fully aware of the requirements at the point of the investment decision, amendments to requirements should not apply to existing power-generating modules, and power-generating modules in proces of connecting to the grid.	Article 4(2).
Article 8			
Article 9			
Article 10			
Article 11			
Article 12			

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 articles			

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TITLE II CHAPTER 1 - General Requirements

General requirements for type A power-generating modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 13(1)			
Article 13(2)			
Article 13(3)			
Article 13(4)			
Article 13(5)			
Article 13(6)			
Article 13(7)			

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	Green Power Denmark propose to add a new provision Article 13(7) covering requirements for power quality.	Power quality affects both the consumers, producers and grid components. Therefore it is crucial to ensure a low level of power quality in the grid.	

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General requirements for type B power-generating modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 14(1)			
Article 14(2)			
Article 14(3)			
Article 14(4)			
Article 14(5)	The general system management requirement laid down in Article 15 (6)(e) shall apply to power-generating modules of type B.	With a higher penetration of renewable energy sources it is important to minimize the active power fluctuations of the grid. The limit for rate of change of the active power output ensures less active power fluctuations.	Article 15(6)(e)

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			

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General requirements for type C power-generating modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 15(1)			
Article 15(2)			
Article 15(3)			
Article 15(4)			
Article 15(5)			
Article 15(6)	The general system management requirement of Article 15(6)(e) should be removed.	Following the proposed amendment for Article 14(5), the requirement should be removed as it will be covered by Article 14(5).	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			

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General requirements for type D power-generating modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 16(1)			
Article 16(2)			
Article 16(3)			
Article 16(4)			

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			

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TITLE II CHAPTER 2 - Requirements for synchronous power-generating modules

Requirements for type B synchronous power-generating modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 17(1)			
Article 17(2)			
Article 17(3)			

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			

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Requirements for type C synchronous power-generating modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 18(1)			
Article 18(2)			

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			

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Requirements for type D synchronous power-generating modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 19(1)			
Article 19(2)			
Article 19(3)			

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			

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TITLE II CHAPTER 3 - Requirements for power park modules

Requirements for type B power park modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 20(1)			
Article 20(2)			
Article 20(3)			

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			

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Requirements for type C power park modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 21(1)			
Article 21(2)			
Article 21(3)			

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			

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Requirements for type D power park modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 22			

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			

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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			
Article 28			

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 articles			

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TITLE III - Operational notification procedure for connection

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 29			
Article 30			
Article 31			
Article 32	Green Power Denmark propose to remove Article 32, in order to include power-generating modules of type B and C in the proces laid down in Article 33-37.	Compliance testing is required for power-generating modules of type B and C. Harmonizing the connection proces for type B, C and D therefore makes sense as it would make to proces more transparence for both the relevant system operators and the power plant facility owners. This ensures that the power plant facility owners receives a ION before testing the capabilities of the power-generating modules.	Article 33-37.
Article 33	Following the amendment proposal for Article 32, it is proposed to harmonize and include power-generating modules of type B, and C in the proces for power-generating modules of type D.	This ensures that the power plant facility owners of power-generating modules of type B and C receives a ION before testing the capabilities of the power-generating modules.	Article 32-37.

Article 34	Following the amendment proposal for Article 32, it is proposed to harmonize and include power-generating modules of type B, and C in the proces for power-generating modules of type D.	This ensures that the power plant facility owners of power-generating modules of type B and C receives a ION before testing the capabilities of the power-generating modules.	Article 32-37.
Article 35	Following the amendment proposal for Article 32, it is proposed to harmonize and include power-generating modules of type B, and C in the proces for power-generating modules of type D.	This ensures that the power plant facility owners of power-generating modules of type B and C receives a ION before testing the capabilities of the power-generating modules.	Article 32-37.
Article 36	Following the amendment proposal for Article 32, it is proposed to harmonize and include power-generating modules of type B, and C in the proces for power-generating modules of type D.	This ensures that the power plant facility owners of power-generating modules of type B and C receives a ION before testing the capabilities of the power-generating modules.	Article 32-37.
Article 37			
Article 38			
Article 39			

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 articles			

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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 40			
Article 41			
Article 42			
Article 43			
Article 44	The requirement of Article 44 shall include compliance testing of the information exchange system.	Information exchange between the relevant system operator and the power-generating module is critical for the system operation. Testing of the information exchange ensures the relevant system operator that the communication works as intended.	
Article 45			
Article 46			

Article 47	The requirement of Article 44 shall include compliance testing of the information exchange system. The testing of power-generating modules of type B should only be preformed if required by the relevant system operator.	<p>Information exchange between the relevant system operator and the power-generating module is critical for the system operation. Testing of the information exchange ensures the relevant system operator that the communication works as intended.</p> <p>A large part of the power-generating plants of type B does not have a power plant controller, if there is no power plant controller the LFSM-O testing is difficult, as a simulated frequency signal can't be send to the inverters.</p>	
Article 48			
Article 49			
Article 50			
Article 51			
Article 52	The requirement regarding simulation of island operation following Article 52(4) should only be required if stated by the relevant system operator.	Operation during islanding can be required by the relevant system operator. If island operation is not required, a simulation of island operation should neither be required.	Article 15(5)(c).
Article 53			
Article 54			

Article 55	The requirement regarding simulation of island operation following Article 55(4) should only be required if stated by the relevant system operator.	Operation during islanding can be required by the relevant system operator. If island operation is not required, a simulation of island operation should neither be required.	Article 15(5)(c).
Article 56			
Article 57			
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 articles			

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TITLE V - Derogations

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 60			
Article 61			
Article 62			
Article 63			
Article 64			
Article 65			

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 articles			

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TITLE VI - Transitional arrangements for emerging technologies

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 66			
Article 67			
Article 68			
Article 69			
Article 70			

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 articles			

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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 71			
Article 72			

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 articles			

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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 **Instruction** section) containing all your amendment proposals in the Track Changes mode.

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Contact

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