

# ACER draft amendments to the Network Code on Demand Connection

Fields marked with \* are mandatory.

## Introduction

This consultation aims at presenting ACER's draft amendments to the **Commission Regulation (EU) 2016 /1388 of 17 August 2016 establishing a Network Code on Demand Connection ('NC DC')**.

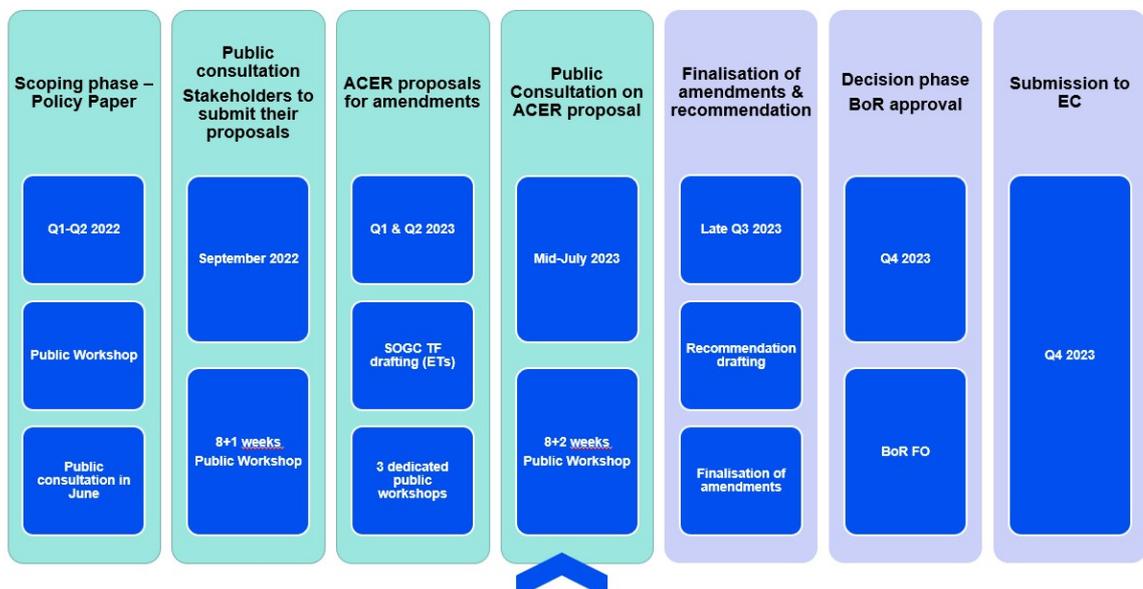
For draft amendments concerning Network Code on Requirements for Generators ('NC RfG'), please go to the respective form: [NC RfG](#).

**Responses to this consultation should be submitted by 25 September 2023.**

## Background

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 aimed to transparently indicate to stakeholders the key policy areas in which amendments were to be expected.

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

As a next step, ACER launched the Public Consultation to gather stakeholders' views and concrete amendment proposals regarding the GC NCs. The stakeholders could submit their inputs by 21 November 2022.

[Access the results of the Public Consultation on the amendments to the grid connection network codes.](#)

Additionally, in the preparation of the draft amendment proposals, ACER organised three dedicated public workshops, namely:

- [electromobility, power-to-gas demand units and heat-pumps](#) (held on 17 April 2023);
- [rate of change of frequency and grid forming capabilities](#) (held on 10 May 2023); and
- [electricity storage](#) (held on 11 May 2023).

After the evaluation of stakeholders' inputs, ACER has formulated its own proposal for the amendments of the GC NCs which is subject to this public consultation.

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## Stakeholder's details

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ACER is highly committed in processing personal data in a lawful way.

Find out more how we process your data: <https://www.acer.europa.eu/the-agency/about-acer/data-protection>

\* Name of the stakeholder:

CENELEC

\* 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:

CENELEC is a European standardisation body including many stakeholders of generator, consumer, TSO, DSO, Academia.

\* 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)

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## Instructions

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Stakeholders are invited to submit their comments to the NC DC articles amended by ACER in three mandatory steps:

1. by downloading the ACER draft amendments in the Word file provided below. The file could also be accessed on the right panel of the consultation form under the Background Documents;
2. by commenting on the ACER's draft amendments through this online consultation form and adding their alternative text proposals to the table, if any; and
3. by uploading the alterative amendment proposals to the **entire NC DC** using the Track Changes mode in the ACER draft amendments file downloaded from Step 1.

Where the stakeholder does not have any comments regarding the amendments, the relevant cells in the consultation form can be left blank.

The mandatory steps for submitting the comments are listed below.

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### *Step 1*

Please see ACER's draft amendments in the Word file provided below. The file could also be accessed on the right panel of the consultation form under the Background Documents.

## [Download ACER draft amendments to the NC DC here](#)

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### *Step 2*

**Kindly note that this consultation form follows the structure of the NC DC amended legal text provided by ACER in Step 1.**

The paragraph numbering in the form reflects paragraph numbers in the amended legal text. Nevertheless, stakeholders can comment on the deleted paragraphs/articles/titles, which are marked as [deleted]. New articles and titles are marked as [new].

Please use this form to comment on ACER draft amendments and/or to provide an alternative text proposal. The instructions are the following:

Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below.

Includes new articles

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 1	1	2
Article 3		
Article 4		
Article 4a [new]		
Article 5		
Article 6		
Article 7		
Article 8		
Article 9		
Article 10		
Article 11		
Article 12		

Please write your amendment proposals, if any, in the table below.

	Text amendment proposal (if applicable)
New article	3

Please upload figures or tables if necessary

The maximum file size is 1 MB

Select file to upload 4

1. Leave comments on the ACER draft amendment proposals.
  2. Propose (if any) alternative wording of the relevant provision, as you provided in the Word file.
  3. Provide (if any) your proposals for adding new provisions to the relevant section of the NC DC, as you provided in the Word file.
  4. Upload figures or tables if necessary; text inputs should be provided directly in the consultation form.
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### ***Step 3***

Where the stakeholder would like to propose an alternative amendment to the **entire NC DC**, please upload the Word file (**downloaded from Step 1**) containing all your alternative amendment proposals in the Track Changes mode to the next **FILE UPLOAD** section and rename it with your stakeholder's name ("ACER\_draft\_DC\_stakeholder\_name"). You can also upload your justification documents, where applicable.

To facilitate the process, please, make sure that the **alternative text proposals provided in this consultation form are consistent**, to the extent possible, **with those in the Word file** you are uploading, taking into account the character limitations of each cell (max 5000 characters).

## **FILE UPLOAD**

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Please upload your file here

The maximum file size is 1 MB

Only files of the type pdf,doc,docx,odt,txt,rtf are allowed

**e3c7e86b-8867-41f6-96ff-bc17faa02458/ACER\_draft\_DC\_CENELEC\_TC8X\_WG03.docx**

Please also upload any other document (i.e. **justifications**) below, if relevant.

Please upload your file

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Due to the significant length of this survey:

- you have the possibility to edit your answer after submission. When clicking on "Submit" button, you will be given a Contribution ID which you can then use to access your answers and edit them, if necessary.
- 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

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

Numbers in the first column correspond to the recitals of the amended version of NC DC Whereas section, including new recitals

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
(1)		
(2)		
(3)		
(4)		
(5)		
(6)		
(7)		
(**)		
(8)		
(9)		
(10)		
(11)		
(12)		
(13)		
(14)		
(15)		
(16)		
(17)		
(18)		
(19)		
(20)		
(21)		
(22)		
(23)		
(24)		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New recital	

## Definitions (Article 2)

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

Includes new definitions

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 2(1)	A large part of the facilities absorb and produce. In future this part will increase. Mentioning only "consumes" is misleading	(1) demand facility' means a facility which consumes electrical energy with or without the presence of power generating modules and is connected at one or more connection points to the transmission or distribution system. A distribution system and/or auxiliary supplies of a power generating module do not constitute a demand facility;
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(*)		
Article 2(**)		
Article 2(***)		
Article 2(****)		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New definition	

Please upload figures or tables if necessary

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## TITLE I - General provisions

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

Includes new articles

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 1		
Article 3		
Article 4		
Article 4a [new]		
Article 5		
Article 6		
Article 7		
Article 8		
Article 9		
Article 10		
Article 11		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

Please upload figures or tables if necessary

The maximum file size is 1 MB

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

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 12		
Article 13		
Article 14		
Article 15	<p>Regarding Article 15(2)                      The operation conditions are known to TSO (side Relevant System - Transmission Grid), but also and specifically to Relevant System Operator (DSO) side distribution network supplied by the installation directly faced / connected to transmission system. So the suggestion is to add "in agreement with relevant system operator to define the connection points where not supply reactive power"</p>	<p>Article 15(2)                      The relevant TSO in agreement with the distribution system operator may require that transmission-connected distribution systems have the capability at the connection point or over a set of connection points defined by the relevant TSO, not to supply reactive power to the transmission system when the magnitude of the active power exchange between the transmission-connected distribution system and the transmission system is lower than a threshold defined by the relevant TSO</p>
Article 16		
Article 17		
Article 18		
Article 19	<p>regarding 19(4)(c)                      For transmission-connected distribution facility the logic interface input port could better be replaced with a command to the SCADA system. Better to clarify</p>	<p>19(4)(c) if required by the relevant system operator, a transmission-connected demand facility or a transmission-connected distribution facility shall be equipped with a logic interface (input port) in order to be disconnected, eventually in block loading, from the transmission system. As an alternative the</p>

		disconnection command could be sent to the transmission-connected distribution facility SCADA system.
Article 20		
Article 21	<p>regarding 21(2)</p> <p>In order to clarify the point is better to add specifying the output data format and the simulation tools, in agreement with the relevant distribution operator</p>	<p>21(2) Each TSO may require simulation models or equivalent information showing the behaviour of the transmission-connected demand facility, or the transmission-connected distribution system, or both, in steady and dynamic states, specifying the output data format and the simulation tools, in agreement with the relevant distribution operator or demand facility owner.</p>
Article 22		
Article 23		
Article 24		
Article 25	<p>regarding 25(3)(c)</p> <p>A more clear reference to (harmonized) European Standards is necessary</p>	<p>c) an update of the applicable technical data, simulation models and studies proving compliance of electric vehicles and associated V1G electric vehicle supply equipment, power-to-gas demand units and heat-pumps with reference, where existing, to European Standards</p>
Article 26		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

Please upload figures or tables if necessary

The maximum file size is 1 MB

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

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 27	<p>As it is hard to decide which load is dispatchable and which not by the system operator and some loads or part of a complex system or a group of loads.</p> <p>For this reason, it is important, that the provisions laid out in this article will remain an opportunity, and my not become an obligation. In case there will be a consideration in a later stage to convert it into an obligation, the following aspects have to be taken into account:</p> <ul style="list-style-type: none"> <li>- Both approaches on individual unit and facilities level may either be applied</li> <li>- The decision should be done by the operator of the facility.</li> <li>- The demand responsive function must be voluntary because for certain groups of loads such a function on unit level is not reasonable based on the intended use or even hinders todays intended use for complex industrial processes. (other intended use like for heat pumps or V1G ELECTRIC VEHICLE SUPPLY EQUIPMENT ....)</li> <li>- Requirements on products or installations regarding network control must not hinder the free trade of products within the EU union.</li> </ul>	CENELEC proposes to keep article 27-30 as they are.
Article 28		
Article 29		
Article 30		
Article 31		

Article 32		
Article 33		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

Please upload figures or tables if necessary

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**[NEW] TITLE XXX - Connection of V1G electric vehicles and associated V1G electric vehicle supply equipment, power-to-gas demand units and heat-pumps**

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article XX	regarding Article XX(5) and XX(5)(a) Add "power to gas units and heat pumps"	With regard to fault-ride-through capability on V1G electric vehicles and associated V1G electric vehicle supply equipment, power to gas units and heat pumps: a. The V1G electric vehicle and associated V1G electric vehicle supply equipment, power to gas units and heat pumps, when operating above the minimum stable operating level, shall be capable of staying connected to the network and continuing to operate stably after the power system has been disturbed by faults in the transmission network according to a voltage-against-time-profile in line with Figure XX.c at the connection point and with the set points in Tables X.1.1 and X.1.2.
Article XX+1		
Article XX+2	Are there already up-to-date technical standards for V1G and HPs, according to which certification bodies can provide these "certificates, proving compliance with this regulation"? Are ad hoc certifications really necessary for low voltage equipment? Dispatchable loads features could be defined if the new NWIP defined in TC 8X WG03 will be approved. So standardization is already taking care of this item in well advance	V1G electric vehicles and associated V1G electric vehicle supply equipment, power-to-gas demand units and heat-pumps shall possess equipment certificates, proving compliance with this regulation where applicable utilising European Standards or European Technical Specifications.

Article XX+3

regarding XX+3(1):

Are there already up-to-date technical standards for V1G and HPs, according to which certification bodies can provide these "certificates, proving compliance with this regulation"? Are ad hoc certifications really necessary for low voltage equipment?

Dispatchable loads features could be defined if the new NWIP defined in TC 8X WG03 will be approved. So standardization is already taking care of this item in well advance

1. V1G electric vehicles and associated V1G electric vehicle supply equipment, and heat-pumps connected at a voltage level above 1000 V shall possess equipment certificates, proving compliance with this regulation where applicable utilising European Standards or European Technical Specifications.

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

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## TITLE IV - Compliance

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
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 proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

Please upload figures or tables if necessary

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## TITLE V - Applications and derogations

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 48		
Article 49		
Article 50		
Article 51		
Article 52		
Article 53		
Article 54		
Article 55		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

Please upload figures or tables if necessary

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## TITLE VI - Non-binding guidance and monitoring of implementation

Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 56		
Article 57		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

Please upload figures or tables if necessary

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## TITLE VII - Final provisions

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 58		
Article 59		

Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New article	

Please upload figures or tables if necessary

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## ANNEX I

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Annex I		

Please upload figures or tables if necessary

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## ANNEX II

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Please write your comments on the ACER draft amendments and your alternative text proposals, if any, in the table below

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Annex II		

Please upload figures or tables if necessary

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## Other additional provisions

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Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
Other new provisions	

Please upload figures or tables if necessary

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### **Background Documents**

[NC DC ACER draft amendments for PC 2023 E 07.docx](#)

### **Contact**

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