

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')**.

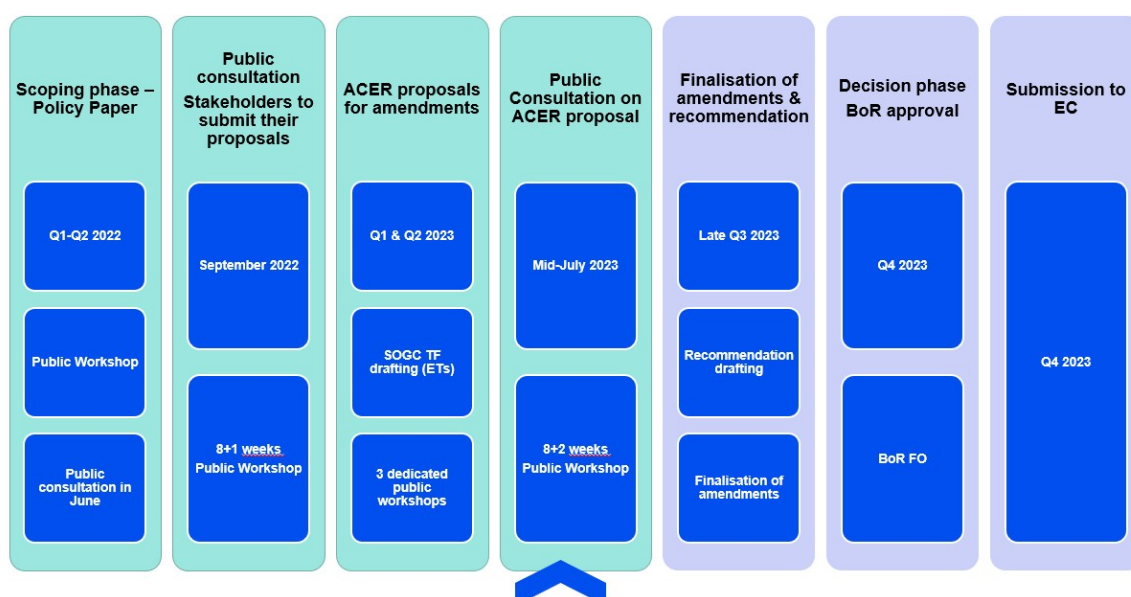
For draft amendments concerning Network Code on Requirements for Generators ('NC RfG'), please go to the respective form: [NC RfG](#).

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.

Stakeholder's details

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:

BDEW e.V.

* Contact person:

[REDACTED]

* Contact person's email address:

[REDACTED]

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

Germany

* 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 representing the whole value chain in the electricity market: generation, transmission, distribution, wholesale and retail

* 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)

Instructions

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 alternative 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.

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](#)


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.
-

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

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

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

Please upload your file

The maximum file size is 1 MB

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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

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)		
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(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)

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)	<p>Article 2 first sentence: Reference has to be made to the definitions laid down in the revised NC RfG which is being developed in parallel to the revised NC DC. In the revised NC RfG (draft) there are three definitions which are not being used in the NC RfG but in the NC DC:</p> <ul style="list-style-type: none"> • „V1G electric vehicle” • „V1G electric vehicle supply equipment“ • „V1G electrical charging park” <p>It should be considered to shift these definitions from NC RfG to NC DC.</p>	<p>For the purposes of this Regulation, the definitions in Article 2 of Directive 2012/27/EU of the European Parliament and of the Council (4), Article 2 of Regulation (EU) 2019/943, Article 2 of Commission Regulation (EU) 2015/1222 (5), Article 2 of Commission Regulation (EU) ... [revised NC RfG], Article 2 of Commission Regulation (EU) No 543/2013 (7) and Article 2 of Directive (EU) 2019/944 shall apply.</p>
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)	Clarify whether all Modes (Mode 2, Mode 3, Mode 4) are meant. Since Mode 2 is an IC-CPD, which is plugable and movable, it should not be in the scope of a demand facility owner or CDSO.	'demand unit document' (DUD) means a document, issued either by the demand facility owner or the CDSO to the relevant system operator for demand units with demand response, demand units which are V1G electric vehicles and associated fixed-in-place V1G electric vehicle supply equipment, power-to-gas demand units or heat-pumps and connected at a voltage level above 1 000 V, which confirms the compliance of the demand unit with the technical requirements set out in this Regulation and provides the necessary data and statements, including a statement of compliance.
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

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 3 par. 1 lit. e	<p>1. The connection requirements set out in this Regulation shall apply to:</p> <p>(a) ...</p> <p>(b) ...</p> <p>(c) ...</p> <p>(d) ...</p> <p>(e) new V1G electric vehicles that do not meet the definition of electricity storage and associated V1G electric vehicle supply equipment, heat-pumps and power-to-gas demand units, with maximum consumption capacity larger than 800W at any voltage level. A V1G electric vehicles is considered a new V1G electric vehicle in the sense of this Regulation if it was granted approval for the use on public roads for the first time after [date of entry into force of this Regulation].</p>
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

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		
Article 16		
Article 17		
Article 18		
Article 19		
Article 20		
Article 21		
Article 22		
Article 23		
Article 24		
Article 25	<p>Article 25 par. 3 lit. c:</p> <p>Regarding AC charging it is questionable how simulation models are possible for V1G EVs which move from one connection point to another, and how to handle different V1G EVs charging at a charging point or installation.</p> <p>At DC charging, the inverter is located in the EVSE, so simulation can be easily done with EVSE only.</p>	<p>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, where applicable.</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

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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 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		
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

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	<p>Article XX par. 5 lit. a: Added text in order to clarify what is meant by “connection point”</p> <p>Article XX par. 5 lit. c: Active power "output" is the wrong word here, better would be "consumption". Understood to recover the same load as before, BUT: EV might not want to recover pre-fault active power consumption due to:</p> <ul style="list-style-type: none"> - Battery almost full - Time-of-use tariff entering an expensive time - HEMS is lowering charging current due to local overload - no/not enough solar power for charging available anymore <p>1s recovery time from "not charging" to "charging" is too short. EVSE-EV communication setup is taking much longer. A steep ramp-up curve could lead to flicker (EMC).</p> <p>Proposal to change from “shall” to “should” in order to not put this requirement mandatory. Extend recovery time to 60s.</p>	<p>Article XX par. 5 lit. a: The V1G electric vehicle and associated V1G electric vehicle supply equipment, 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 trans-mission network according to a voltage-against-time-profile in line with Figure XX.c at the connection point of the V1G electric vehicle or associated V1G electric vehicle supply equipment and with the set points in Tables X.1.1 and X.1.2.</p> <p>Article XX par. 5 lit. c: When the network voltage resumes, after the fault has been cleared, to a value with-in the voltage range of 0,85 pu – 1,1 pu, a V1G electric vehicle and associated V1G electric vehicle supply equipment should recover its active power consumption level to its pre-fault value. If charging was not stopped, the recovery time should not exceed a maximum of 1s, excluding time for communication. If charging was stopped the recovery time should not exceed a maximum of 60s, excluding time for communication.</p>
Article XX+1		

Article XX+2	<p>V1G electric vehicles move around whole Europe and have to be compliant with several grid codes. So it is beneficial if a central certification (or even better homologation) according to a central European standard like EN 50549-10 is done.</p> <p>Also, Article 24 Interim operational notification 3c says: "equipment certificates issued by an authorised certifier in respect of transmission-connected demand facilities including any V1G electric vehicle supply equipment, power-to-gas demand units, heat pumps of the facility, transmission-connected distribution facilities and transmission-connected distribution systems, where these are relied upon as part of the evidence of compliance;" No EV is mentioned here.</p> <p>(related to Art. 24 par. 3 lit. c)</p>	<p>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. V1G electric vehicles provide compliance with this regulation by certification with a harmonised European standard.</p>
Article XX+3	<p>V1G electric vehicles move around whole Europe and have to be compliant with several grid codes. So it is beneficial if a central certification (or even better homologation) according to a central European standard like EN 50549-10 is done.</p> <p>Also, Article 24 Interim operational notification 3c says: "equipment certificates issued by an author-ised certifier in respect of transmission-connected demand facilities including any V1G electric vehicle supply equipment, power-to-gas demand</p>	<p>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</p>

	<p>units, heat pumps of the facility, transmission-connected distribution facilities and transmission-connected distribution systems, where these are relied upon as part of the evidence of compliance;" No EV is mentioned here.</p> <p>(related to Art. 24 par. 3 lit. c)</p>	<p>this regulation. V1G electric vehicles provide compliance with this regulation by certification with a harmonised European standard.</p>
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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

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

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	

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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	

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TITLE VII - Final provisions

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

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

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

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

The maximum file size is 1 MB

Background Documents

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

Contact

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