

ACER draft amendments to the Network Code on Requirements for Generators

Fields marked with * are mandatory.

Introduction

This consultation aims to present ACER's draft 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')**.

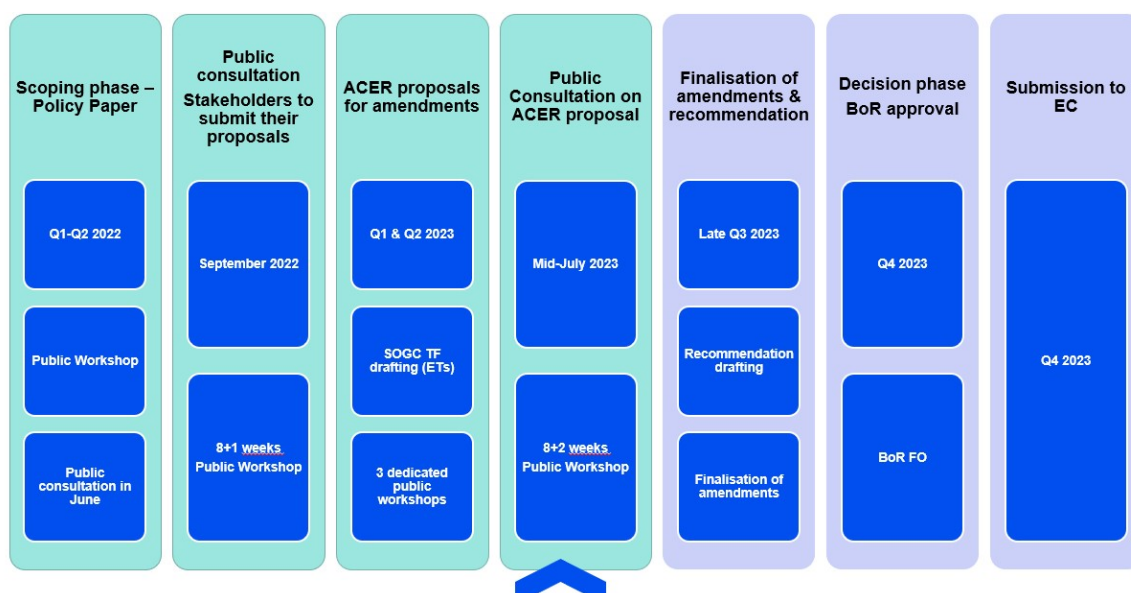
For draft amendments concerning Network Code on Demand Connection ('NC DC'), please go to the respective form: [NC DC](#).

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:

Bundesverband Kraft-Wärme-Kopplung 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:

* 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 RfG articles amended by ACER in three mandatory steps:

1. by downloading the ACER draft amendments in the Word file provided below. The file can 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 RfG** 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 can also be accessed on the right panel of the consultation form under the Background Documents.

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

Step 2

Kindly note that this consultation form follows the structure of the NC RfG 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	

Please upload figures or tables if necessary

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Select file to upload

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 RfG, 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 RfG**, 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_RfG_stakeholder_name"). You can also upload your justification documents, where applicable.

In case the file size exceeds the 1MB limit, which is a consultation tool limit, kindly send the document to the functional mailbox shown on the right panel of the consultation form. Please rename the file with your stakeholder's name as indicated above and send it with the subject "ACER draft RfG legal text [stakeholder name]". Note that only submissions sent within the consultation deadline will be considered.

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

Kindly note that in case the file size exceeds 1MB, the file can be sent to the functional mailbox shown on the right panel of the consultation form under Contact. Please ensure that the file name and email subject are consistent with the instructions in Step 3.

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

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 RfG Whereas section, including new recitals

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
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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)		
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(10a)		
Article 2(11)		
Article 2(12)		
Article 2(13)		
Article 2(14)		
Article 2(15)		
Article 2(16)		

Article 2(17)	<p>The definition " 'power park module' or 'PPM' means a unit or ensemble of units that can generate electricity, which is not a synchronous power-generating module and which is either non-synchronously connected to the network or connected through power electronics, and that also has a single connection point to a transmission system, distribution system including closed distribution system or HVDC system" cannot distinguish between asynchronous generators and converter based generators, although these two technology have different features and capabilities.</p>	<p>Either differentiate centrally by amending the definition, so that PPMs are only converter based generators (full convertors or DFIGs) or don't forget to check each requirement on PPM if there is an exception according to EN 50549 (for μCHP up to 50 kW, and asynchronous generators used for other microgenerators), see also in the report of the Expert Group on Type A about the Expert Group on Typ A on the relevance to the power system of micro CHP.</p>
Article 2(18)		
Article 2(19)		
Article 2(20)		
Article 2(21)		
Article 2(22)		
Article 2(23)		
Article 2(24)		
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Article 2(71)		
Article 2(72)		
Article 2(73)		
Article 2(74)		
Article 2(75)		

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 4		
Article 4a [new]	d) If in a fuel cell the stack or within and ICE based CHP unit the motor will be changed with a more modern version, does the whole power generating module need to fulfill the then applicable requirements. If yes, that would be a knock-out kriterium for the industry. The exchange of components including repair needs to be addressed more clearly.	Modify Article (d) and add (e)+(f) (d) a change of components/assets of a power-generating module or electricity storage module apart from maintenance and repair activities and spare parts, whether or not those parts are purchased new at the time of their incorporation in the power generating module. This exemption also applies for improved components/assets as long as the electric characteristics are not relevantly influenced; (e) a change of components/assets of a power-generating module[LG1] or electricity storage module apart from modification that provide momentary or time limited increase of power; (f) a change of components/assets of a power-generating module or electricity storage module apart from modification that will foster an increase of power associated to an improvement in the efficiency or emission reduction
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	

Please upload figures or tables if necessary

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TITLE II CHAPTER 1 - General Requirements

General requirements for type A power-generating modules

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

Includes new paragraphs

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 13(1)		
Article 13(2)		
	<p>(g) "[.] The power generating module shall be able to receive and react on an external signal allowing the relevant system operator to block active power LFSM-O mode in real-time. The TSO in coordination with the RSO shall define the framework conditions for the use of this function. [..]" For the very small units of type A this is a disproportional hardship, as the costs of a reliable communication interface per active power to be influenced is very high. In contrast to the requirement of a "logic interface (input port)" according the existing Article 13(6), which can be legally also fulfilled by the existing overvoltage protection in the PGM combined with the voltage regulator at on-line tap changer for use in emergencies, a dedicated extra communication channel is needed.</p> <p>The risk of extra transits should be reduced by properly choosing a common default value for the over-frequency droop within each synchronous zone, and the choice of the correct reference value - in most cases it is the momentary power when the LFSM-O threshold is crossed. The n-1 security criterium should allow for enough headroom if LFSM-O is activated during a disturbance.</p>	

Article 13(3)

for power park module: less or equal to 2 seconds for an active power setpoint change of 50% maximum power.

Power park modules include not only PV inverters and battery inverters, but also asynchronous generators including prime movers with an combustion engine or generating units with a mechanical drive train as in micro-hydro plants (water wheel).

"instead of the capability referred to in paragraph (a), the relevant TSO may choose to allow within its control area automatic disconnection and reconnection of power-generating modules of Type A at randomised frequencies, ideally uniformly distributed, above a frequency threshold, as determined by the relevant TSO where it is able to demonstrate to the relevant regulatory authority, and with the cooperation of power-generating facility owners, that this has a limited cross-border impact and maintains the same level of operational security in all system states;" A fast disconnection of small scale generators, which have not the possibility of an inverter to quickly ramp up and down a droop curve because of the dynamics of the prime mover, is better than a slow reaction which may last several seconds to reduce power. TSO shall not unduly prohibit this solution as described in EN 50549:2019, page 33. If there is no delay in reducing power, there is no need to reconnect quickly, because no overshoot occurs. See as a prominent example

Remove that requirement here and let this requirement only apply to larger PGMs of type B and above. Use the term "logic interface (input port)" in Article 13(7) as this is more general.

Add an exemption to this requirement for micro CHP (up to 50 kW, see EED) and other rotating machinery, and use the same requirement for the response time as for synchronous generators.

instead of the capability referred to in paragraph (a), the relevant TSO should shall allow within its control area automatic disconnection and reconnection of power-generating modules of Type A at randomised frequencies for disconnection, ideally uniformly distributed, above a frequency threshold, and with a randomised time delay for reconnection as determined by the relevant TSO unless it is able to demonstrate to the relevant regulatory authority, and with the cooperation of power-generating facility owners, that this has a limited substantial cross-border impact and jeopardize operational security in all system states; [as the PPM definition does not allow a differentiation between PV inverters and micro-CHP, a selective approach does not seem easily possible]

	the over-frequency blackout in Eastern Turkey (2015), where a generator dropping in multi-unit hydropower plants within 200 ms could have avoided the crossing of the overfrequency threshold.	
Article 13(4)		
Article 13(5)		
Article 13(6)		
Article 13(7)	"The power-generating module shall be equipped with a communication interface (input port) in order to reduce, without undue delay, active power output following an instruction being received at the input port." - The formerly used logic interface is the more general term and it allows a broader solution space, including simple relais which may be triggered by some kind of digital or analogue communication channel, if the DSO needs to activate this option for remote control.	say: communication interface (input port) or signal interface (input port)

Article 13(8)	<p>"8 The technical capability of the power-generating module to connect to the network shall be as follows :</p> <p>(e) Synchronizing conditions.</p> <p>(e) Condition on voltage phase angle difference measured on each side of the circuit breaker[A1] : $\Delta\theta < 10^\circ$</p> <p>(f) Condition on the voltage magnitude difference measured on each side of the circuit breaker[A2] : $\Delta U < 0.04$ pu; and</p> <p>(g) Condition on the frequency difference measured on each side of the circuit breaker[A3] : $\Delta f < 0,2$ Hz"</p> <p>This synchronizing condition only apply with power generating units, if the generator works as a voltage source with a defined rotating voltage vectors. This is in many cases not implemented as in current sourced converters, asynchronous generators, or CHP engines that are started via the generator.</p>	<p>Please refer to the clauses in EN 50549-1:2019 that deal with synchronisation (clause 4.10) or reuse the described concept of starting power generation there.</p>
Article 13(9)		
Article 13(10)		
Article 13(11)		
Article 13(12)		
Article 13(13)		
	<p>"14. The power-generating modules shall fulfil the following requirements in relation to robustness:</p> <p>(a) with regard to fault-ride-through capability:</p> <p>(i) synchronous power generating modules shall fulfil the requirements laid down in Article X;</p> <p>(ii) power park modules shall fulfil the</p>	

Article 13(14)

requirements laid down in Article Y;"

b) As the type A SPGM penetration is not comparable to type A PPM penetration, the need for FRT requirements for type A SPGM is currently sufficient to include as a non-mandatory requirement in the RfG, see also EN 50549-1 where the problem with FRT for small scale converter based generators is already solved. For fuel cell technologies and other micro CHP, the principle of proportionality shall apply, as the penetration is low (compare with the stirling engine discussions during the first edition of NC RfG). That means sales are low and development of new inverters, which are dedicated to serve in fuel cell systems, is not economically done with low. Nevertheless the combination of heat pumps with fuel cells as power generating heatings (ratio ca. 3:1) is helpful to avoid a large increase of vertical grid load during the winter season, which could give extra stress during a cold wave if space heating is only served by the power system. Therefore it would be a fallacy to drive manufacturers into bankruptcy.

Article 13(14) (b) "with regard to grid forming capability, power park modules shall fulfil the requirements laid down in Article Y."
Grid forming capabilities (please remember that PPMs also include asynchronous generators) should not be introduced as a mandatory requirements, but as an optional ancillary service which can be introduced

For FRT in type A PGM, there is a distinction needed, see EN 50549-1, clause 4.5.3 Under-voltage ride through (UVRT).

b) with regard to grid forming capability and if agreed between the relevant parties, power park modules (excluding micro CHP and rotating machinery with asynchronous generators up to 50 kW) shall fulfil the requirements laid down in Article Y.

	stepwise, e.g. according to voltage level, or regional responsibility by a DSO, or other good justifications.	
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Please write your amendment proposals, if any, in the table below

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

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[NEW] General requirements for type EV1 and EV2 V2G electric vehicles and associated V2G electric vehicle supply equipment

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 13a(1)		
Article 13a(2)		
Article 13a(3)		
Article 13a(4)		
Article 13a(5)		
Article 13a(6)		
Article 13a(7)		
Article 13a(8)		
Article 13a(9)		
Article 13a(10)		
Article 13a(11)		

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

	Text amendment proposal (if applicable)
New provision	

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General requirements for type B power-generating modules

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 14(1)		
Article 14(2)[deleted]		
Article 14(2)		
Article 14(3)		
Article 14(4)		
Article 14(5)		

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

	Text amendment proposal (if applicable)
New provision	

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[NEW] Requirements for type EV3 electric vehicles and associated V2G electric vehicle supply equipment and V2G electrical charging parks

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 14a(1)		
Article 14a(2)		
Article 14a(3)		
Article 14a(4)		
Article 14a(5)		
Article 14a(6)		
Article 14a(7)		
Article 14a(8)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

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General requirements for type C power-generating modules

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 15(1)		
Article 15(2)		
Article 15(3)[deleted]		
Article 15(3)		
Article 15(4)		
Article 15(5)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

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General requirements for type D power-generating modules

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 16(1)		
Article 16(2)		
Article 16(3)		
Article 16(4)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

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

[NEW] Requirements for type A synchronous power-generating modules

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 X		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

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Requirements for type B synchronous power-generating modules

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 17(1)		
Article 17(2)		
Article 17(3)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

The maximum file size is 1 MB

Requirements for type C synchronous power-generating modules

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 18(1)		
Article 18(2)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

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Requirements for type D synchronous power-generating modules

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

Includes new paragraphs

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 19(1)		
Article 19(2)		
Article 19(3)		
Article 19(4)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

The maximum file size is 1 MB

TITLE II CHAPTER 3 - Requirements for power park modules

[NEW] Requirements for type A power park modules

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 Y(1)		
Article Y(2)		
Article Y(3)		
Article Y(4)		
Article Y(5)		
Article Y(6)		
Article Y(7)		
Article Y(8)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

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Please upload figures or tables if necessary

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Requirements for type B power park modules

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

Includes new paragraphs

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 20(1)		
Article 20(2)		
Article 20(3)		
Article 20(4)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

The maximum file size is 1 MB

Requirements for type C power park modules

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

Includes new paragraphs

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 21(1)		
Article 21(2) [deleted]		
Article 21(2)		
Article 21(3)		
Article 21(4)		

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

	Text amendment proposal (if applicable)
New provision	

Please upload figures or tables if necessary

The maximum file size is 1 MB

Please upload figures or tables if necessary

The maximum file size is 1 MB

Please upload figures or tables if necessary

The maximum file size is 1 MB

Requirements for type D power park modules

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

Includes new paragraphs

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 22(1)		
Article 22(2)		

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

	Text amendment proposal (if applicable)
New provision	

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TITLE II CHAPTER 4 - Requirements for offshore power park modules

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 23		
Article 24		
Article 25		
Article 26		
Article 27		
Article 28		

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

	Text amendment proposal (if applicable)
New article	

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TITLE III - Operational notification procedure for connection

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 29		
Article 30		
Article 30a [new]		
Article 30b [new]		
Article 31		
Article 32		
Article 33		
Article 34		
Article 35		
Article 36		
Article 37		
Article 38		
Article 39		

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 40		
Article 41		
Article 42		
Article 43		
Article 44		
Article 45		
Article 46		
Article 47		
Article 48		
Article 49		
Article 50		
Article 51		
Article 52		
Article 53		
Article 54		
Article 55		
Article 56		
Article 57		
Article 58		
Article 59		

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

	Text amendment proposal (if applicable)
New article	

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TITLE V - 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 60		
Article 61		
Article 62		
Article 63		
Article 64		
Article 65		

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

	Text amendment proposal (if applicable)
New article	

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[DELETED] TITLE VI - Transitional arrangements for emerging technologies

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)
Title VI [deleted]		

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 70a [new]		

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

Includes new articles

	Comment on the ACER draft amendments	Alternative text amendment proposal (if applicable)
Article 71		
Article 71a [new]		
Article 72		

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

	Text amendment proposal (if applicable)
New article	

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Other additional provisions

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

	Text amendment proposal (if applicable)
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Other new provisions	<p>General: According to recital (27) it is relevant for NC RfG requirements to use the results of European Standardisation, cf. EN 50549-1/-2. The EN 50549 takes into account into detail the differentiation between inverters and asynchronous generators, and also the requirements with today come from the gas appliance directive and related harmonised standards.</p> <p>This relates to the structure of definitions, and the fact that Power Park Modules include also asynchronous generators which is used for some micro-CHP, micro-hydro, etc. NC RfG should link to EN 50549 or adopt the differentiations made there.</p> <p>General: As the three Network Codes of Grid Connection (RfG, DCC, HVDC) interrelate to each other, e.g. by shared definitions and similar if not the same concepts for the requirements (e.g. grid forming capabilities) the NCs should not be updated in serial order, but together as a batch process, which allows to update relevant paragraphs together according current technological consensus and system needs.</p> <p>Instead of processing NC RfG and DCC first and then finishing NC HVDC after the first two amendments for the Connection Network Codes (CNC) have been published, synchronise all of the relevant steps in the 3 CNC amendments, so that improvements in the technical discussion will affect all three related Network Codes. This will avoid an deadlock of common definitions and requirements.</p>
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Background Documents

NC RfG ACER draft amendments for PC 2023 E 07.docx

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