Contribution ID: 8671ef25-72b9-4a83-ab15-d53c791015bf
Date: 25/09/2023 19:50:11

ACER draft amendments to the Network Code on Requirements for Generators

Fields marked with * are mandatory.

Introduction

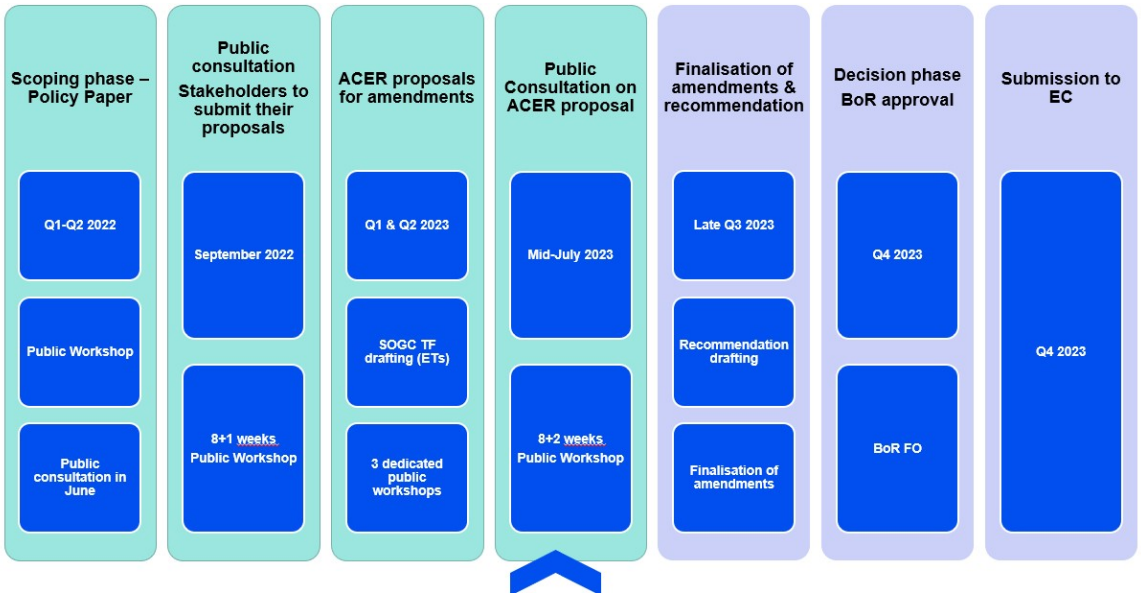
This consultation aims to present ACER's draft amendments to the Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a **Network Code on Requirements for Grid Connection of Generators ('NC RfG').**
For draft amendments concerning Network Code on Demand Connection ('NC DC'), please go to 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:

CogenEurope

* Contact person:

* Contact person's email address:

* 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:

COGEN Europe represents the manufacturers and operators of cogeneration solutions. Cogeneration is the suite of technologies that simultaneously produce heat and power, which improves primary energy efficiency compared to the separate production of heat and power. Cogeneration today delivers 12% of electricity and 16.5% of heat in Europe, across industry, district heating and households. The EU has made “energy efficiency first” principle a priority for delivering our climate and energy ambitions. In this context, all EU and national legislation must promote the highest efficiency generators and remove barriers to their deployment. The requirements for connecting such cogeneration plants to the grid could have a direct impact on the operational efficiency and that can affect the viability of such generating plants.
Harmonisation between member states on grid connection requirements is very important to facilitate an efficient and competitive market for PGMs. The RfG is a first step for such harmonisation, but it still have major shortcomings.

* 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 alterative 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.

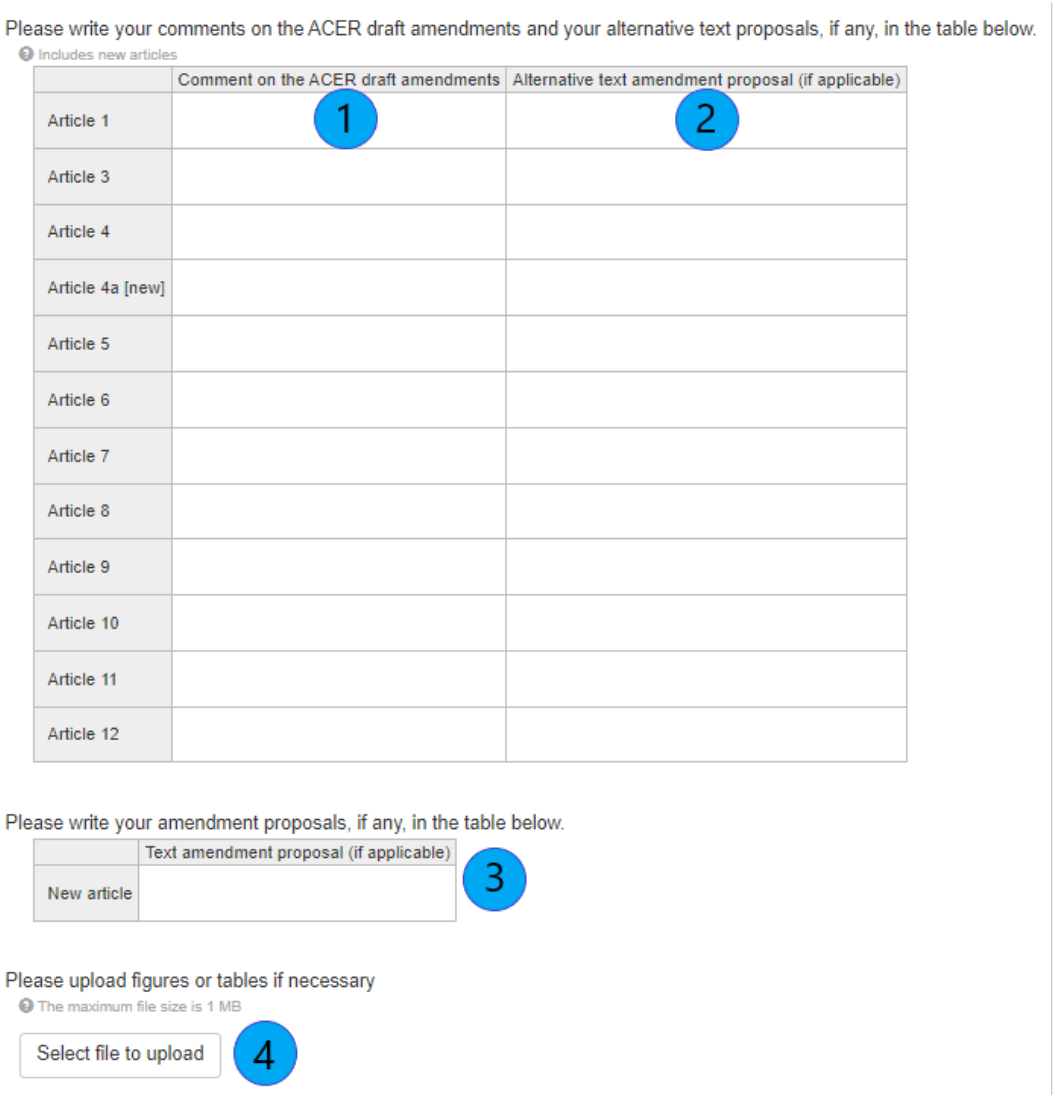
Download ACER draft amendments to the NC RfG here

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	

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 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

The maximum file size is 1 MB

Please upload your file

The maximum file size is 1 MB

Please upload your file

The maximum file size is 1 MB

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)
(1)	This comment refers to the Title and general intro and not to recital (1). The comments are two (2) / TFEU Article 290(3) The adjective "delegated" shall be inserted in the title of delegated acts. REGULATION (EU) 2019/943 clearly states the legal basis on which the RfG can be amended. REGULATION (EU) 2019/943 (72): In order to ensure the minimum degree of harmonisation required for effective market functioning, the power to adopt acts in accordance with Article 290 of TFEU should be delegated to the Commission in respect of non-essential elements of certain specific areas which are fundamental for market integration. Those acts should include the adoption and amendment of certain network codes and guidelines where they supplement this Regulation, the regional cooperation of transmission system operators and regulatory authorities, financial compensations between transmission system operators, as well as the application of exemption provisions for new interconnectors. … Is the intention of the who draft the new revision	COMMISSION ?DELEGATED ? REGULATION (EU) 2016/631

	to propose a "delegated" regulation including possible legal hurdles? ACER to check if adopting a delegated regulation this can have impact on how this is enforced. This can create barriers to the internal market // It is recommended that RfG code, DCC Code and HVDC code are amended in one amendment package in order to avoid lack of consistency	
(2)		
(3)		
(s1)	New ROCOF requirements and associated discussion point to the urgent need to work on solution to keep inertia and short circuit system on the grid under control. Synchronous compensators and flywheel are some of the	(s1)Equally, electricity storage plays a key role in the system as different energy storage technologies have a dual behaviour of being able to consume electricity from or inject electricity into the grid at different times and scales. For this reason, and due to the specific characteristics of storage and impact on the system, it is necessary to introduce requirements for the grid connection of electricity storage modules. The requirements on electricity storage are considered to be the same as those on power generation modules unless explicitly stated otherwise in this Regulation. In the case of electrical equipment such as synchronous compensators, flywheels and regenerative braking systems which do not fall onto the definition of a power generating module or electricity storage module, the

	elements that helps in such respect. Timeline are stringent since the peception is that the product is needed right away.	relevant system operator may define the technical requirements that apply. In the case of synchronous compensator and flywheels, the relevant TSOs in cooperation with stakeholders and eventually involving relevant European standard organization, shall define harmonized proposal for technical requirements within 1 year from the entry into force of this regulation. The harmonized technical requirements shall be introduced within 2 years from the entry into force of this regulation .
(s2)	New ROCOF requirements and associated discussion point to the urgent need to work on solution to keep inertia and short circuit system on the grid under control. Synchronous compensators and flywheel are some of the elements that helps in such respect. Timeline are stringent since the peception is that the product is needed right away.	
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		
(**)		
(11)		
(12)		
(13)		

(14)		
(15)		
(16)		
(17)		
(x)		
(18)		
(19)		
(**)		
(20)		
(21)		
(22)		
(**)		
(23)		
(24)		
(25)		
(**)	System stability shall be ensured not by imposing additional requirements to PGMs, but by deploying appropriate solution to preserve frequency and voltage stability as described in SOGL regulation. The deployment of solutions to keep minimum local and global inertia and voltage control should be based on economic incentives and dedicated market solutions.	Rapidly increasing penetration of dispersed generation and converted-based technologies into European networks has presented new challenges in ensuring overall system security. To the extent that an adequate contribution to the dynamically transforming system depends partly on advanced capabilities. Power-generating modules should be able to support the system robustness by providing system services in addition to appropriate countermeasure to be deployed by system operators based on Dynamic Stability Analysis as requested in EU 2017/1485 art 38 and art 39.
(26)		
(27)		

(28)		
(29)		
(30)		
(31)		
(32)		

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)		This Regulation establishes a network code which lays down the requirements for grid connection of power-generating facilities, namely synchronous power-generating modules, power park modules, electricity storage modules and offshore power park modules, to the interconnected system. It, therefore, helps to ensure fair conditions of competition in the internal electricity market, to ensure system security and the integration of renewable electricity sources, to facilitate Union-wide trade of power-generating modules and to facilitate Union-wide trade in electricity.
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)	Pmax shall be referred to specific ambient and operative condition.	‘maximum capacity’ or ‘Pmax’ means the maximum continuous active power which a power-generating module can produce at specific ambient and operative conditions, less any demand or losses associated solely with facilitating the operation of that power-generating module as specified in the connection agreement or as agreed between the relevant system operator and the power-generating facility owner, or determined by other appropriate means, where an agreement is not required
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)		
Article 2(37)		
Article 2(38)		
Article 2(39)		
Article 2(40)		
Article 2(41)		
Article 2(42)		
Article 2(43)		
Article 2(44)	Houseload seems to need a more precise definition. Houseload can be also an intentional disconnection from the grid.	‘houseload operation’ means the operation which enables power-generating facilities, normally interconnected to the network, to continue to supply their in-house loads, when disconnected from the network.; it can be also understood as island operation condition where the island corresponds to the Power Generating Facility houseload only or part of it.
Article 2(45)		
Article 2(46)		
Article 2(47)		
Article 2(48)		
Article 2(49)		
Article 2(50)		
Article 2(51)		
Article 2(52)		
Article 2(53)		
Article 2(54)		

Article 2(55)		
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)		
Article 2(66)		
Article 2(67)		
Article 2(68)		
Article 2(69)		
Article 2(70)		
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)
	It is considered that definition of PGU families and component families are needed as harmonized definition to enhance compliance verification process. Therefore the following definition are recommended, (76) ‘power generating unit’ or ‘PGU’ means an aggregation of components converting a primary source of energy into electricity at unit’s terminals, which is synchronously connected to a network or which is either non-synchronously connected to the network or connected through power electronics. (77) ‘component’ means any hardware element or software element having an impact on the electrical characteristics and /or operation of a power generating unit or a power-generating module.. (78) ‘power generating unit family’ or ‘PGU family’ means a group of PGUs from the same manufacturer with equivalent characteristics to the representative unit which has undergone conformance tests in terms (tested unit) of electrical performance. PGU family members may differ in power and voltage from the representative unit. The extent of the PGU family will be defined within the compliance scheme. (79) ‘Component family’ means a group of components from the same manufacturer with equivalent characteristics to the representative component which has undergone conformance tests (tested component), in terms of electrical performance. The extent of the component family will be defined within the compliance scheme (80) ‘compliance scheme’ means a compliance verification programme provided by the relevant system operator which shall specify all evaluation and assessment measures to be taken, e.g. equipment certificates, tests, technical documentation and/or simulations, aimed to demonstrate the compliance of a PGM with the specified requirements during the operational notification process. The compliance scheme shall provide detailed information on the specified requirements or provide unambiguous references to relevant technical documents and standards. The compliance scheme should refer to applicable

New definition	international or European standards if available. The compliance scheme may specify the format of the statement of compliance as well as further procedural information for embedding the statement of compliance in the operational notification process. Where equipment certificates are applied within the compliance scheme the scheme shall include or provide a reference to a certification scheme. The applied equipment certificates must be valid for the specific equipment installed within the PGM which a connection request has been made. (81) ‘specified requirements’ are provisions on power generation units, power generation modules or their components and which need to be fulfilled (82) ‘Statement of conformity’ means an attestation based on a conformity assessment that the fulfilment of specified requirements has been successfully demonstrated. The statement of conformity is provided in the equipment certificate. (83) ‘authorised certifier’ means an entity that issues equipment certificates and/or power-generating module documents and is accredited according to the relevant internationally recognized standard given by the national affiliate of the European cooperation for Accreditation (‘EA’), established in accordance with Regulation (EC) No 765/2008 of the European Parliament and of the Council (84) ‘equipment certificate’ means a document issued by an authorised certifier based on a certification scheme according to the relevant internationally recognized standard for equipment used by a power-generating module, demand unit, distribution system, demand facility or HVDC system. The equipment certificate provides a statement of conformity demonstrating that specified requirements as defined on national or other level are fulfilled by the equipment. For the purpose of replacing specific parts of the compliance process, the equipment certificate may include simulation models that have been validated against actual test results; (85) PGU Family Certificate’ means a document issued by an authorised certifier for a PGU Family based on the analysis of a representative unit. The Family Certificate provides a statement of conformity demonstrating that specified requirements as defined at national level or in relevant standard are fulfilled by the PGU family.

	For the purpose of replacing specific parts of the compliance process, the Family Certificate may include simulation models that have been verified against actual test results and represent the whole PGU Family.

Please upload figures or tables if necessary

The maximum file size is 1 MB

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	This is an amendment proposal to art 1. It is indicated here since art 1 is not indicated. The internal market comprises an area without internal frontiers in which the free movement of goods is ensured in accordance with the Treaties. The grid connection rules have to respect the Treaty's internal market principles in relation to power-generating products – this including the prohibition of quantitative restrictions between Member States TFEU 34-36.	This Regulation establishes a network code which lays down the requirements for grid connection of power-generating facilities, namely synchronous power-generating modules, power park modules, electricity storage modules and offshore power park modules, to the interconnected system. It, therefore, helps to ensure fair conditions of competition in the internal electricity market, to ensure system security and the integration of renewable electricity sources, to facilitate Union-wide trade of power-generating modules and to facilitate Union-wide trade in electricity.
Article 3	Since requirements are considered necessary for the system of the future, then common language translation is a need. In addition, it has been noted that in some countries, manufacturers did not provide feedback. Language is considered a consistent barrier to provided constructive comments.	To be added 4. The documents defining the requirements and the verification of the compliance as defined by each Member State and system operators shall be available also in english.
	Various Comments / (72) … the power to adopt [non-legislative] acts in accordance with Article 290 of TFEU should be delegated to the Commission in respect of non-essential elements of certain specific areas which are fundamental for market integration. Those acts should include the adoption and amendment of certain network codes and	/ Preamble, the following shall be introduced at MSs considering procedures associated to delegated regulation.

Article 4	guidelines… The essential elements should be adopted with a legislative act by the Parliament and Council. The non-essential elements should then supplement or amend the essential elements. Where the essential elements are not in place, the legal validity of the added requirements that go beyond those of 2016/631 could be questioned. // art 4(2)(b) Timeline for the introduction shall be appropriate. Art 7.4 required "proposal" for requirements to be published in 24 months (and eventually made definitive in 30 months). It is not acceptable that binding contracts are signed without knowing the requirements and any new requirement need a minimum time to be ackowledge by manufacturers.	.. // (b) the power-generating facility owner has concluded a final and binding contract for the purchase of the main generating plant by two years after the entry into force of the Regulation or one year after the definition and publication of requirements and compliance scheme whatever it is later. In general new requirements can be made applicable for generating unit for which a final and binding contract is signed not less than 1 year after their definition and official publication; the time could be longer based on agreement between RSOs, regulators and manufacturers depending on the complexity of the requirement to be introduced.
Article 4a [new]	We recommend some additional proposal which are self describing. Since these are proposal for exemption, as an alternative it can be created a separate article 4a (4) that states what shall not be considered significant modenization and includes (d), (e) and (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 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	art 6(4) The sentence shall force to have an explicit statement in the code. Or the sentence shall be structured in a way that if the Grid Code is silent than the art 6(4) applies for cogeneration. This has been discussed in ESC; the expectation is that the sentence leave no legal doubt on original intention of drafting team (which is that when CHP or Cogen are not mentioned, art 6(4) is valid, even if there is reference to all units in the grid code).	.. 4. Except for requirements under paragraphs 2 and 4 of Article 13 or where otherwise explicitly stated in the national framework, requirements of this Regulation relating to the capability to maintain constant active power output or to modulate active power output shall not apply to power-generating modules of facilities for combined heat and power production embedded in the networks of industrial sites and in public, commercial and residential buildings, and in district heating systems with supply temperature above 100°C, where all of the following criteria are met:
	Multiple comments and amenment proposals. / 7(3)(f) IGDs reference shall be deleted. Market regulation already states that IGDs are non binding documents. They are today written only by ENTSOE and not based on consensus. They do not have a quality process in place and not technically vetted. It is also recommended to amend the market regulation EU 2019/943 art 59(15) so that the	.. 3 .. (f) take into consideration agreed European standards, technical specifications, European Stakeholder Expert Group Final Reports , and relevant nuclear safety rules; (g) When local specific conditions, that shall be

Article 7	IGDs ownership does not belong only to ENTSOE, but shall be drafted by ENTSOE and Stakeholders and based on consensus so they can be properly used in the future (it seems many TSO just copy paste the IGDs just assuming they have been accepted by any other stakeholder, which is not the case, since many times comments from stakeholder are dismissed or not integrated). // 7(3)(h) Local condition requirement shall not be used to trigger additional requirements to any other unit, but to trigger exceptional, one and only, specific requirements. // 7(10) It is recommended to have an appropriate timeline for completing a compliance scheme which includes if and how the use of equipment certiifcate is permitted.	technically justified, require adapted capabilities, they may be specified in agreement with Plant generating owner, following appropriate derogation process. Local specific conditions are not meant to trigger requirements to any other PGMs outside the local specificity ... 10. The relevant system operator or TSO shall submit a proposal for a detailed compliance scheme updated including the use of equipment certificate, for approval by the designated entity within 18 months from the entry into force of this Regulation. The Member State may provide for a shorter time. In this case, the Member State shall communicate the shorter time period to the European Union Agency for the Cooperation of Energy Regulators (ACER). The RSO and TSO shall coordinate the details of the compliance scheme with relevant stakeholders including manufacturers
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

The maximum file size is 1 MB

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)	Multiple comments and proposal for amendments / 13(2)(b) Replacing ROCOF requirements for any technology with a more generic sentence. Any requirements above 1Hz/s may have major impact costs associated to redesign of the generating unit. High ROCOF impact is not predictable on loads. The proposed sentence comes from the fact that ROCOF capabilities are case by case scenario, but it is recognized that minimum ROCOF value is 1Hz/s over a period of 0.5 sec. This pragmatic sentence is based also on the ongoing discussion. Hence it seems additional time is requested to better understand the phenomena associated to the requirement and then the associated recommended requirement. // 13(2)(d) Upper limit frequency, at least for SPGM, shall be 51.5Hz, eventually 52Hz. Higher frequency deviation are not today present in technical product standard. Eventually it is proposed that Generating unit that can operate up to 52.5Hz shall not withold	(2)(b) PGMs shall provide information on the maximum acceptable ROCOF withstand capability; minimum withstand capability shall not be less than +/-1Hz/s over a period of 0.5 sec. If the technology or mode of operation (e.g. cogeneration) of the synchronous power-generating module limits the capability, information on the maximum acceptable ROCOF withstand capability shall be provided. (2)(d) to be deleted (or replaced saying that PGMs capable to operate above 51.5Hz and up to 52.5Hz for a limited period of time shall not withhold such capabilities).

	such capabilities. This article is in contradiction with random disconnection of small generating unit.	
	Multiple Comments: / 13(3)(b) Not having this alternative solution in place can create trade barriers. It has to be clearly demonstrated that such solution can create substantial crossborder impact. // 13(3)(g) Block active power function. This requirement has never been discussed during GC ESC. This can have major design impact. We recommend to remove it from the text since it is introducing a higher complexity. Or the way it is formulate is not clear (what means "block"? what the active power shall do when blocked and/or unblocked; what if the reaction has already happened and the "block signal is received?) It is not considered a proper solution to delegate to TSO or RSO to define how it works, since too many solution can be defined. The justification seems also not appropriate: congestion is expected not as a short transient condition that supposedly can be dealt with secondary control. It is also strange to have overload on the line due to loads. /// 13(3)(g) step response time. Response time..shall be as fast as possible.. To be differently worded, since fastest response	/ (b) instead of the capability referred to in paragraph (a), the relevant TSO should allow within its control area automatic disconnection and reconnection of power-generating modules of Type A at randomized frequencies, ideally uniformly distributed, above a frequency threshold, 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 cross-border impact and jeopardize operational security in all system states;

Article 13(3)	is not necessarily the best solution for system stability (see also discussions in EG ACPPM). For this reason the word "capability" has been added ////13(3)(g) step response requirements. The original sentence is technically wrong, LFSM is not a change of active power setpoint. It is considered that the proposed values are not reasonable for many technolgies. Technical capabilities shall be already considered and the text shall be darftes as such. As an alternative we recommed step response definition according to technologies (not limited to classification as PGM and PPM) for example as defined in european standard (EN 50549) as follow: - For PV and battery inverters below 1 s for ΔP of 100 % Pmax . - For wind turbines 2 s for ΔP < 50 % Pref - For combustion engines, gas turbines, fuel cells below 2 MW 66%Pref /min for a 100% change. - For combustion engines, gas turbines, fuel cells above 2 MW 20% /min for a 100% change. - For ORC 20%Pref /min for a 100% change. Or add wording so that requirements details and capabilities shall/can be developed by national or european std and for technologies not addressed technology capabilities shall be considered.	//+///+//// (g) the power-generating module shall be capable of operating stably during LFSM-O operation. When LFSM-O is active, the LFSM-O setpoint will prevail over any other active power setpoints which would result in an increase of power above the LFSM-O setpoint. The response time capability, Tresp in Figure XX, for active power decrease in case of increasing frequency, shall be as fast as technically feasible and as described below: (i) for synchronous power-generating module: step response time less or equal to 8 seconds for a change of 45% maximum active power or maximum step response permitted by the PGM technology.. (ii) for power park module: step response time less or equal to 2 seconds for a change of 50% maximum active power or maximum step response permitted by the PGM technology. (h) An electricity storage module shall be capable of activating the provision of active power frequency response from the current active power input or output automatically up to the operative maximum consumption capacity according to the indicative Figure X to the extent that is technically feasible and justifiable. A frequency threshold and a droop setting specified by the relevant TSO in accordance with paragraph (3)(a) of this Article shall apply; this characteristic and associated parameters and settings shall be in accordance to figure /table etc,. Step response capabilities of the

	The perception is that the requirement as specified seems to be immature (what about requirement when frequency decrease to rated value, what about Christmas tree behaviour?..). It is recommended to set up an EG that discuss and better define the topic. The last sentence can be removed if previous comments are taken. As a general note asking of derogation is always an issue and involve painful process for plant owner/manufacturers, /// 13(3)(h) To be checked if reference to "maximum consumption" is already including limitation to max capacity associated to maintenance operation. Added the word "operative". Figure X for storage as figure 1, but adding an horizontal line defining generation/consumption .. technically feasible to be added "and justifiable" by reasonable system needs. It is recommended to define a harmonized characteristic with main settings/parameters common for all Europe (eg based of figure and table and information as for the other generating units/modules) Expected dynamic capabilities seems to be missing. In case to switch from generation to demand it	electricity storage module shall be documented. It is expected that active power decrease and increase control can be defined in agreement with TSO taking in consideration technical capabilities. The relevant TSO may define a different characteristic or establish that the electricity storage module, when consuming active power, will maintain the consumption level even during the overfrequency event. Switching from consumption to generation and vice versa should be as fast as technically feasible or justifiable. The relevant system operator has the right to request the demonstration of technical evidence of the required switching time. Whereas switching is not an automatic and a viable solution, the plant owner can enter in agreement with the TSO to limit the frequency response up to the electricity storage actuating only either in generation or consumption mode (no switching).

	takes a long time, like thermal or mechanical systems that could result in unreasonable wearing or unsustainable costs, then it could be considered that no switching is requested.	
Article 13(4)		
Article 13(5)		
Article 13(6)		
Article 13(7)	"signal" wording allows for better flexibility on the system to be implemented on PGMs/PGUs. Communication seems to be forcing specific costly solution unnecessary for small units. It is recommended to define a harmonized solution for external input signals to be integrated on the PGMs/PGUs.	7. The power-generating module shall be equipped with a signal interface (input port) in order to reduce, without undue delay, active power output following an instruction being received at the input port. ...
Article 13(8)	Multiple comments / It seems that the ramp specified is requested when the PGM synchronize, therefore corresponding wording has been added. To be noted that operational ramp rates are not specified in the RfG. Recommendation is to specify them. Note operational ramp rates, are intended as active power ramp rates applicable during normal operation when changing active power setpoint. // "synchronizing condition" seems a general statement. Makes sense to have the same condition as 13(9).	8. The technical capability of the power-generating module to connect to the network shall be as follows: (a) Voltage range at the grid connection point: within the voltage range that is defined for unlimited time operation if so applicable; (b) Frequency range of 47.5 Hz ≤ f ≤ 51 Hz; (c) Adjustable observation time: from 0 to 300 s; (d) Adjustable limitation of the gradient of active power increase ≤ 20 % of Pmax/min, during initial ramp up to maximum permitted power or equivalent time; and, (e) For Power Generating Module which are

	Proposed to add that synchronizing conditions are applicable only for Voltage Source PGMs.	a voltage source, Synchronizing conditions as described in art 13(9)(e),(f) and (g).
Article 13(9)	Synchronizing conditions can only be applied for PGMs which are voltage source and not current source. Synchronizing condition are better described in technical standard (eg VDE ar-n-4105 chapter 8.3). It seems the text comes from ENTSOE IGD which is incomplete and not up to date. The voltage range for synchronization are not in line with voltage range table for unlimited operation. Proposed to replace with content of 13 (8)(a) Proposed ramp rates.. same comment made as for 13(8). Replaced "circuit breaker" with "switch". Proposed to add that synchronizing conditions are applicable only for Voltage source PGMs.	9. Within the capability defined in paragraph (7), the default settings for an autonomous connection shall be as follows: (a) Voltage range at the grid connection point: within the voltage range that is defined for unlimited time operation if so applicable; (b) Frequency range: — Continental Europe: 47.5 Hz ≤ f ≤ 50.1 Hz — Other synchronous areas 47.5 Hz ≤ f ≤ 50.5 Hz (c) Minimum observation time: 60 s; (d) Maximum gradient of active power increase ≤ 20 % of Pmax/min during initial ramp up to maximum permitted power or equivalent time (e) For Power Generating Module which are a voltage source, Condition on voltage phase angle difference measured on each side of the connection switch Δθ < 10° (f) For Power Generating Module which are a voltage source, Condition on the voltage magnitude difference measured on each side of the connection switch ΔU < 0.04 pu; and (g) For Power Generating Module which are a voltage source, Condition on the frequency difference measured on each side of the connection switch: Δf < 0,2 Hz Autonomous connection is allowed unless specified otherwise by the relevant system operator in coordination with the relevant TSO.

Article 13(10)	Reactive power capability and control are not cross-border issue for type A PGMs. This chapter is recommended to be moved to Type B PGMs requirement (with the recommended amendment).	10. The relevant system operator shall have the right to specify the capability of a power-generating module to support voltage by using reactive power; the capabilities shall be based on European standardization and in general the requirement shall not exceed provision made for type C and type D PGMs.
Article 13(11)		
Article 13(12)		
Article 13(13)		
	Multiple Comments / Editorial: to evaluate the replacement of the word "robustness" with the world "immunity" // As explained in the EG BftA report and further elaborated in the report referenced COGEN Position Paper, power generation modules that are also approved and CE marked as gas appliances according to REGULATION (EU) 2016/426 on appliances burning gaseous fuels are designed to be used in private homes and needs to fulfil strict safety requirements. Those modules are typically micro cogeneration systems (mCHP) of less than 50 kW electric output. Gas safety is a key issue for domestic mCHP's. However, FRT requirements would directly compromise gas safety. An event like an under-voltage situation precisely means, that the power supply to the gas safety system ceases. In this situation, the gas safety system has to shut-down the appliance – the opposite of the	14. The power-generating modules shall fulfil the following requirements in relation to

Article 13(14)	FRT requirement that requires the gas appliance to ride through that under-voltage fault. The essential requirements of the regulation include: Annex I (3.1.6) Abnormal fluctuation or failure of auxiliary energy or its restoration shall not lead to an unsafe situation. In the harmonised standards this is translated to immunity to voltage interruptions of at least 0,02 s. In practice, gas safety shut-off valves close within 0,1 s, and it is not allowed to use a delay or in any other way to keep the gas safety valve open, e.g. by using backup power from a battery to supply safety valve and safety circuit.. These gas safety requirements are the result of EU legislation. They are sound requirements but incompatible with FRT requirements. /// As discussed in EG BftA report, small µCHP generators up to 50 kW, shall be excluded from the FRT requirements ////exclusion for PPMs using asynchronous generators. See EG BftA final report, where the problematic had been raised and recommendation, in line with the proposed amendment, has been proposed. See also EG ACPPM, page 56 and 57 (chapter 11.3.2) the topic has been presented. Here it is clearly stated that derogation is not a workable solution for such small generating unit. This is a replica comment of the one made in art Y(8)(e), since it was not clear wher it better fits.	robustness: (a) with regard to fault-ride-through capability: (i) synchronous power generating modules shall fulfil the requirements laid down in Article X; (ii) power park modules shall fulfil the requirements laid down in Article Y ; (iii) Power generation modules that are also CE marked and approved as gas appliances according to ‘REGULATION (EU) 2016/426 on appliances burning gaseous fuels’ this regulation shall prevail with regards to Fault Ride Through capabilities or in general for capabilities that can lead to unsafe condition of operation.

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

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

Please upload figures or tables if necessary

The maximum file size is 1 MB

[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	

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

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

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

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)	14(2) Voltage deviation not at PGU terminals. Voltage deviation would imply additional costs for Type B units, if they need to be considered as requirements at PGUs terminals. To be added correspondent explanatory article 14(2)(ii) simultaneous Voltage and frequency deviation. The proposed value is in line with IEC 60034 requirement. Voltage limits in the proposed tables are not in line with synchronization condition in art 13(9)(a). it is proposed to modify art 13(9)(a) and align to 13(8)(a). Addressed in art 13.	(ia) the voltage range in the table XX.1 and XX.2 are not to be understood as requirements for PGUs terminals. Transformers equipped with OLTC should be installed in HV system to limit voltage deviation at Power Generating Facility distribution system; .. (ii) the relevant TSO may specify shorter periods of time during which power-generating modules shall be capable of remaining connected to the network in the event of simultaneous overvoltage and underfrequency or simultaneous undervoltage and overfrequency. the generating module shall be capable to accept a V/f ratio up to 1.1
	Multiple comments / 14(3)(a)(i) and (ii) It is today common practice during the verification process to consider the LVRT shape as a multiple fault characteristic. The generating unit is then tested against each of such faults represented by a rectangular shaped voltage-against-time profile. The proposed text is used to align to such common	(i) each TSO shall specify a voltage-against-time profile in line with Figure 3 at the connection point for fault conditions, that may represent different fault conditions, which describes the conditions in which the power-generating module, when operating above the minimum stable operating level, is capable of staying connected to the network and continuing to operate stably after the power system has been disturbed by secured faults on the transmission system; / (ii) the voltage-against-time-profile shall express a

Article 14(3)	practice used to verify robustness of the generating unit. Basically if the LVRT characteristic is used for robustness, but it is common practice that to verify capabilities, the curve is splitted in multiple rectangular shape used to test the generating unit capabilty, it would be good to have this accepted common practice explicitly indicated in the regulation. // Table 3.1.1 and Table 3.2.1 Urec2 -> Recommended to use reference to unlimited minimum voltage. The intent is not to sum-up events to check robustness. ///14(3)(b) Requirements for asymmetrical fault shall be within the symmetrical fault limits. ////14(3)(c) It is not reasonable to extend the characteristic. Appropriate technical justification shall be provided and feasibility to operate to upper limits shall be agreed. This exception should be considered only site specific and not to be extended to any genearting facility. ///// Figure X The requirement seems to be too onerous for PGMs connected to the distribution system. It is recommended the adoption of the OVRT profile as described in EN 50549-2. 1.2Un over a long period of time (60s) shall be technically justified.	lower limit of the actual course of the phase-to-phase voltages on the network voltage level at the connection point during a symmetrical fault, as a function of time before, during and after the fault. When the voltage-against-time profile as expressed in Fig 3 represents different fault conditions, the PGM is expected to be capable of riding through each of such faults taken separately. Each TSO shall be able to identify each of such fault condition represented with a voltage-against-zime rectangular shape; // Table 3.1.1 Urec2 -> Minimum unlimited voltage specified in paragraph (2) ///14(3)(b) fault-ride-through capabilities in case of asymmetrical faults shall be specified by each TSO, but within the limits defined for symmetrical faults according in art 14(3)(a). //// 14(3)(c) The power-generating module shall be capable of operating stably without disconnecting from the network, if none of the phase -to -phase voltages exceeds the voltage-against-time-profile defined in Figure X at the connection point. The relevant system operator, in coordination with the relevant TSO, and in agreement with a Generating Facility owner may define higher longer times for operation, if it is required to preserve or to restore system security and considering technical feasibility based on CBA for a specific facility ///// Figure X to be aligned to profile in EN 50549-2.

		Deviation to be technically justified.
Article 14(4)	14(4)(c) added the word "signal" for better clarification.	The power-generating module shall be equipped with a signal communication interface (input port) in order to reduce, without undue delay, active power output following an instruction being received at the input port.
Article 14(5)	Multiple comments / 14(5)(b)(iii) This list of possible protection function can be too easily copy pasted without much consideration. Some specific functions have been striked through, since not typically applicable for Type B units, to avoid them in without real need. // 14(5)(d)(v) The information associated to fault event are stored on protection device or power meters or specific device used for oscilloperturbography. In case of fault, recordings of the event are collected on dedicated file (not exchangable in real time). These file are normally locally downloaded. They are normally shared by mail or cloud (many times they are too big to be shared by mail). So communication as proposed is not viable. In addition the expectation is that the same available	(iii) protection schemes may, but it is not mandatory, cover the following aspects: — external and internal short circuit, — asymmetric load (negative phase sequence), — stator , — over-/underexcitation, — over-/undervoltage at the connection point, — over-/undervoltage at the alternator terminals, — — inrush current, — — — power-generating module line protection, — transformer protection , — back-up against protection and switchgear malfunction, — overfluxing (U/f), — reverse power, — rate of change of frequency, and — neutral voltage displacement, ground fault protection 14(5)(d)(v) (v) the RSO and TSO may request to access data collected during fault event by electricity quality monitoring, including protection device when

	data are provided by RSO and TSO to the plant facility owner in the same format (also RSO and TSO have equipments that permit to collect such information).	applicable, from the power generating facility owner. The power generating facility owner may also request to access data collected during the fault event by the RSO and TSO with the same level of details. The data exchanged shall be raw data and limited in such a manner to not require non disclosure agreement among parties. The power generating facility owner and RSO and TSO will define how the collected data will be exchanged

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

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

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

[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

The maximum file size is 1 MB

Please upload figures or tables if necessary

The maximum file size is 1 MB

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)	Multiple comments / art 15(2)(c)(ii) Block Command for LFSM-U Same comments as for LFSM-O In addition in case of underfrequency it is already foreseen a analog signal associated to congestion situation // art 15(2)(c)(vi) Same comments as for the LFSM-O in art 13 /// art 15(2)(d) The FSM control logic shall be considered a bias to the active power setpoint. In fact the deadband for FSM can go down to 0. That means that just after connection to the grid and reaching the Pmin, the FSM will be active. Once active FSM will be prevailing above other logic, but that would prevent any dispatchability of the generating unit. The interpretation of how FSM operates shall be made clear. //// art 15(2)(d) Table 4 Droop S1 ->: We do not understand where 27% number comes. If the number is used to accomodate storage capabilities, than it is recommended to separate droop requirements for such technology. //// art 15(2)(d) Table X	(ii) the actual delivery of active power frequency response in LFSM-U mode shall be capable of taking into account, if applicable: — ambient conditions when the response is to be triggered, — the operating conditions of the power-generating module, in particular limitations on operation near maximum capacity at low frequencies and the respective impact of ambient conditions according to paragraphs 4 and 5 of Article 13, and — the availability of the primary energy sources. ... (vi) The PGMs capabilities associated to a step response time Tresp (Figure XX) for LFSM-U shall be as fast as technically feasible and as described below: — For SPGM: less or equal to 5 min for a change of 20% maximum active power or the maximum step response time permitted by the PGM technology, — For PPM: less or equal to 10 s for a of 50% maximum active power or the maximum step response time permitted by the PGM technology.

	Delta F1 is defined only for LFSM. In FSM this seems to corresponds to insensitivity, therefore it is creating confusion. The indication in Figure 5 is also creating confusion, in fact FSM can flat at 2%Pref, not reaching the ideal curve as shown in Figure 5. It shall be better explained that deltaF1 corresponds to the activation of LFSM logic, which are not power flat characteristics. Figure5 is recommended to be modified accordingly. //// art 15(2)(d) Table 5 Maximum admissible choice of full activation time t 2, unless longer activation times are allowed by the relevant TSO for reasons of system stability The requested value includes 2s of delay time hence limit the expected reaction time to 3s, which is not realistic for many technology. In addition FSM is expected to be a slow control, that helps control small frequency deviation; very fast reaction time can be detrimental to the expected control since associated to bigger generating unit..	//// Table 4 Droop S1 -> 2-12% and 2-27% for storage technology ///// Table X Definition of Δf1 used for LFSM-O and LFSM-U (explanation for Figure 1, 4 and 5) Ireland and NI 0.2 Hz (for LFSM-O), 0.5 Hz (LFSM-U) ///// Table 5 Maximum admissible choice of full activation time t 2, unless longer activation times are allowed by the relevant TSO for reasons of system stability or PGMs technology capability -> 30 seconds for SA Continental Europe and SA Nordic. 30 sec for SA Ireland and Northern Ireland
Article 15(3)[deleted]		
Article 15(3)		
		(v) a power-generating module with black start capability shall be capable of automatically regulating the voltage at the connection point to limit the magnitude of voltage changes caused by connection of demand, when the Power Generating Facility that includes such PGM is not interconnected to the grid;

15(4)(a)(v)
Note that Black Start Capability as defined in "definition" chapter refers to PGM capability and not system restoration. In addition appropriate procedure for system restoration has to be defined including control modes.

15(4)(a)(vi)
Requirement associated to LFSM seems not to belong to Black Start Capability of PGM, but how PGM shall be operated during system restoration. System restoration is a procedure that require appropriate engineering and communication. Any unit connected to the grid (unless below 800W and Type A) shall be capable of LFSM-O/U. Remove the sentence.

Load acceptability is limited on generating units; as the requirement is written it seems this is not considered.

The word "parallel" can create misunderstanding.

Voltage control capability depend of many factors, like the size of the PGM and the type and size of loads that are connected (including their connection methodology [direct insertion, star delta, soft starter..] and their sequence). System Restoration phase is based on a procedure driven by System Operator and it can involve different control mode change. This sentence seems not appropriate for PGM black start capability and we recommend to delete or at least to delete "automatically", since

(vi) a power-generating module with black start capability shall at least:
— be capable of regulating load connections in block load,
—

— control frequency in case of overfrequency and underfrequency within the whole active power output range between minimum regulating level and maximum capacity as well as at houseload level; however load acceptability shall be previously agreed between RSO and the Power Generating Facility owner and it is typically function of the type of demand to be connected and of the PGM loading status;
— be capable of operation with a few power-generating modules within one island, and
— control voltage during the system restoration phase;
..

(b) with regard to the capability to take part in island operation , for the avoidance of doubt, this does not correspond to the island operation of Power Generating Facility , which corresponds to houseload operation

(b)(v) the power-generating module control schemes, including FSM, LFSM-O, LFSM-U and voltage control system (synchronous power-generating modules) or voltage control mode (power park modules) shall be able to continuously and stably operate during the transition from

Article 15(4)	voltage control during restoration sequence is done in coordination with other systems. 15(4)(b) Island operation can be an ambiguous term, it is recommended to add a clarification text. art 15(4)(b)(v) It is recommended to not prevent already common used solutions. There is not technical justification preventing the use of available information. art 15(4)(b)(vi) Prime mover has no definition in RfG and could be replaced with PGM art 15(4)(c) "quick" is a generic adjective and it seems not necessary here; it is recommended to specify that the requirements are specific to plant with houseload capabilities only. art 15(4)(c)(i) Quick shall be better defined with a clear time reference. It is proposed 15min as time reference. art 15(4)(c)(ii) Position signals of switchgear shall be a possibility to identify houseload operation. art 15(4)(c)(iii) The word "shall" is not appropriate in case proposal to amend the 15(4)(c) title is not accepted. Then it needs to be clarified that re-synchronization	interconnected system operation to island operation. The transition can require control mode change. The method for detecting a change from interconnected system operation to island operation shall be agreed between power generating facility owner and the relevant system operator and it can rely on switchgear position signals. The RSO and TSO shall be able to identify the status of their grid. (b)(vi) power-generation module shall be capable to regulate active power between houseload operation level and minimum stable operating level for a minimum operation time. The minimum operation time shall be specified by the relevant system operator in coordination with the relevant TSO, taking into consideration the specific characteristics of PGM technology. (c) with regard to re-synchronisation capability for Power Generating Facility that have the capability to operate on houseload (c)(i) in case of disconnection of the power-generating module from the network, the power-generating module shall be capable of re-synchronisation to the network, in less than 15 minutes, in line with the protection strategy agreed between the relevant system operator in coordination with the relevant TSO and the power-generating facility (c)(ii) a power-generating module with a minimum re-synchronisation time greater than 15 minutes after its disconnection from any external power supply

	capabilities apply only to plant that are capable of houseload operation. In (ii) it is indicated that the Power Generating Facility is disconnected from any external power supply. Therefore the correspondent sentence is deleted.	must be designed to trip to houseload from any operating point in its P-Q-capability diagram. In this case, the identification of houseload operation may be based also on the position signals of 'switchgear' (c)(iii) power-generating modules shall be capable of continuing operation following tripping to houseload,. The minimum operation time shall be specified by the relevant system operator in coordination with the relevant TSO, taking into consideration the specific characteristics and capabilities of PGM technology and availability of primary source of energy
Article 15(5)	art 15(5)(c)(vi) This information is not associated to PGM model. It belongs to short circuit study (either carried out from Power Generating Facility Owner or System Operator). PGM can provide information associated to its contribution. This is normally not expressed in the format of MVA, rather than in A (it is used for system design/sizing) or reactances (eg synchronous generator reactances) used as inout for the short circuit study. Short circuit study needs information associated to the network to be carried out.	(c)(vi) the request by the relevant system operator referred to in points (i) and (ii) shall be coordinated with the relevant TSO. It shall include: — the format in which models are to be provided, — the provision of documentation on a model's structure and block diagrams, — an estimate of the minimum and maximum short circuit contribution at the connection point,; (c)(vii) the power-generating facility owner shall provide recordings of the power-generating module's performance to the relevant system operator or relevant TSO if requested. The relevant system operator or relevant TSO may make such a request, in order to compare the response of the

	art 15(5)(c)(vii) Data exchanged when related to generating unit performance shall be treated as confidential data. art 15(5)(e) Prime mover has no definition in RfG and could be replaced with PGM	models with those recordings, however performance data and recordings shall be treated as confidential by TSO (e) the relevant system operator shall specify, in coordination with the relevant TSO, minimum and maximum limits on rates of change of active power output (ramping limits) in both an up and down direction of change of active power output for a power-generating module, taking into consideration the specific characteristics of PGM technology

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

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

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)	General editorial, "have the right to" can be simply deleted	2. With regard to voltage stability and without prejudice to Article 14(2), the relevant system operator in coordination with the relevant TSO shall specify voltages at the connection point at which type D power-generating module is capable of automatic disconnection. The terms and settings for automatic disconnection shall be agreed between the relevant system operator and the power-generating facility owner
Article 16(3)	It is today common practice during the verification process to consider the LVRT shape as a multiple fault characteristic. The generating unit is then tested against each of such faults represented by a rectangular shaped voltage-against-time profile. The proposed text is used to align to such common practice used to verify robustness of the generating unit.	(i) power-generating modules, when operating above their 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 secured faults. That capability shall be in accordance with a voltage-against-time profile at the connection point for fault conditions specified by the relevant TSO. The voltage-against-time-profile shall express a lower limit of the actual course of the phase-to-phase voltages on the network voltage level at the connection point during a symmetrical fault, as a function of time before, during and after the fault. That lower limit shall be specified by the relevant TSO, using the parameters set out in Figure 3 and within the ranges set out in Tables 7.1.1, 7.1.2, 7.2.1, and 7.2.2 for type D power-

	Basically if the LVRT characteristic is used for robustness, but it is common practice that to verify capabilities, the curve is splitted in multiple rectangular shape used to test the generating unit capabilty, it would be good to have this accepted common practice explicitly indicated in the regulation.	generating modules connected at or above the 110 kV level. That lower limit shall also be specified by the relevant TSO, using parameters set out in Figure 3 and within the ranges set out in Tables 3.1.1, 3.1.2, 3.2.1 and 3.2.2 for type D power-generating modules connected below the 110 kV level; The voltage-against-time profile may represent different fault conditions. In such a case the PGM is expected to be capable of riding through each of such faults taken separately. TSO shall be able to identify each of such fault conditions represented within the voltage-against-time rectangular shape .
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

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

Please upload figures or tables if necessary

The maximum file size is 1 MB

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	It is today common practice during the verification process to consider the LVRT shape as a multiple fault characteristic. The generating unit is then tested against each of such faults represented by a rectangular shaped voltage-against-time profile. The proposed text is used to align to such common practice used to verify robustness of the generating unit. Basically if the LVRT characteristic is used for robustness, but it is common practice that to verify capabilities, the curve is splitted in multiple rectangular shape used to test the generating unit capabilty, it would be good to have this accepted common practice explicitly indicated in the regulation.	1. The relevant TSO shall specify if fault-ride-through capabilities shall be required for Type A synchronous power generating modules. Where fault-ride-through capability of a Type A synchronous power generating module is required by the relevant TSO, the relevant TSO shall specify the following capabilities: (a) The synchronous power generating module shall be capable of staying connected to the network and continuing to operate stably after the power system has been disturbed by faults on the transmission system according to a voltage-against-time-profile in line with Figure 3 at the connection point, that may represent different fault conditions, and with the set points in Tables X.1.1 and X.1.2; (b) the voltage-against-time-profile expresses a lower limit of the actual profile of the phase-to-phase voltages (or single phase to neutral voltages for single phase type A synchronous power generating modules) on the network voltage level at the connection point during a symmetrical fault, as a function of time before, during and after the fault; The voltage-against-time profile may represent different fault conditions. In such a case the PGM is expected to be capable of riding through each of such faults taken separately. TSO shall be able to identify each of such fault conditions

		represented within the voltage-against-time rectangular shape.

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

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)	We recommend to simplify the wording as done in art 19(2)(a). Note that AVR is included in the RfG defintions, see art 2(53)	... (b) equipped with an Automatic Voltage Regulator having: ..
Article 17(3)	It shall be clear that art 17(3) is referred to LVRT fault condition (not to any other type of fault), for which it is expected the active power output should recovery back to pre-fault (pre LVRT) condition. The SPGM type B are not expected to change the active power setpoint during the fault condition. The active power change due to the voltage variation, correspondent reaction of the generator and AVR to the fault and shaft oscillation. Once the fault is cleared and once the transient conditions end, then they come back to the original active power output. The transient conditions and associated oscillation are function also the network characteristics. We recommend to delete art 17(3) since it was meant for other technologies and natural behaviour of SPGM should be already acceptable.	art 17(3) recommended to be deleted or amended as follow 3. With regard to robustness, type B synchronous power-generating modules shall be capable of providing post-fault active power recovery. The relevant TSO shall specify the magnitude and time for active power recovery, taking in consideration PGM technical capabilities and natural behaviour.

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)	18(2)(b)(ii) "— the U-Q/Pmax-profile shall not exceed the U-Q/Pmax-profile envelope, represented by the inner envelope in Figure 7, " As it is written the expectation is that the requirement will be drafted having a shape like the inner shape in Fig 7. If not we are looking for a text supporting such inner shape for SPGMs.	no text proposal

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

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)	19(2)(a)(iii) Frequency range shall be defined between 0.3Hz and 1Hz. Lower value from 0.3 Hz does not provide appropriate tuning. PSS studies needs system data to be carried out. PSS is expectd to be installed on big generating unit (eg 50 MVA and above). 19(2)(b)(ii) We recommend a proper crosscheck of the wording with specialist. 19(2)(b)(iii) the presence of a stator current limiter. Not necessary needed, there is already the OEL that is limiting the permissible current on the stator based on thermal limits. OEL is defined on rotor thermal limit which is normally conservative compared to stator thermal limit. Recommended to be removed.	(iii) a PSS function to attenuate power oscillations. The PSS shall have the capability to damp inter-area power oscillations in the frequency range of, at least, 0,3 Hz – 1,0 Hz. The relevant TSO shall have the right to request and approve the tuning of the PSS by the power-generating facility owner to damp the inter-area oscillation mode based on frequency ranges specified by the relevant TSO in coordination with adjacent TSO or TSOs. The relevant TSO shall have right to request the tuning of the PSS by power-generating facility owner to damp the local oscillation mode, in which the synchronous power-generating modules is oscillating against the grid, based on the detailed information provided by the TSO.TSOs shall define a active power limit threshold for which the PSS is requested, not less than 50 MVA. (b) having a voltage control system with parameters and settings of the components specified by an agreement between the power-generating module owner and the relevant system operator, in coordination with the relevant TSO. The agreement shall cover at least: (i) the specifications and performance of an AVR with regard to steady-state voltage and

		transient voltage control and the specifications and performance of the excitation control; (ii) bandwidth limitation of the output signal to ensure that the highest frequency of response cannot excite torsional oscillations on other power-generating modules connected to the network.
Article 19(3)		
Article 19(4)	ROCOF Protection settings shall be agreed with Power Generating Facility Owner.	(c) if the rate-of-change-of-frequency is used for loss of mains protection, the relevant system operator, in coordination with the relevant TSO and Power Generating Facility owner, shall specify the threshold of this rate-of-change-of-frequency-type loss of mains protection.

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	9 PGMs using asynchronous generators are PPMs, but they are excluded from Grid Forming capabilities and associated requirement . Comment on the new provision: PGMs using asynchronous generators shall be exempted from grid forming requirements. See EG BftA final report, where the problematic had been raised and recommendation, in line with the proposed amendment, has been proposed. See also EG ACPPM, page 56 and 57 (chapter 11.3.2) the topic has been presented. Here it is clearly stated that derogation is not a workable solution for such small generating unit. This is a replica comment of the one made in at 13 (14), since it was not clear where it better fits.

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 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	

Please upload figures or tables if necessary

The maximum file size is 1 MB

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	

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

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	Modification of paragraph 2 brings the compliance scheme topic and the fact that it needs to be applied. new paragraphs ensure that an acceptance of equipment certificates is facilitated by a clear specification by the RSO on: a) respectively accepted certification schemes and b) respectively accepted specified requirements, e. g. grid codes, from other member states, on which the conformity assessment is performed New article 3 and 4 address compliance scheme minimum requirements.	.. 2. The relevant system operator shall clarify and make publicly available the details of the operational notification procedure which shall include the compliance scheme.. 3. the compliance scheme shall address the use of equipment certificates of PGU and component. 4. The compliance scheme should refer to applicable international or European standards if available. ..
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	

Please upload figures or tables if necessary

The maximum file size is 1 MB

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	The amendment to the article associated to eq Certificate for type A generating units is drafted based on mutual recognition of the regulation among MSs that limit commercial barriers	1. The relevant system operator shall assess the compliance of a power-generating module with the requirements applicable under this Regulation, throughout the lifetime of the power-generating facility. The power-generating facility owner shall be informed of the outcome of this assessment. For type A power-generating modules, the relevant system operator may rely upon equipment certificates issued by an authorised certifier for this assessment. In doing so, certificates issued to the requirements of the Member State of origin of the generator are to be accepted on equal level with certificates issued to the requirements applicable at the location of the RSO, where the generator is to be installed. Possible deviations to the requirements have to be tolerated by the RSO, based on self-declaration of compliance issued by manufacturers of the power generating unit.
Article 42		
Article 43		
Article 44		
Article 45		
Article 46		
Article 47		
Article 48		

Article 49		
Article 50		
Article 51	art 51(2)(d) This control mode is not defined in previous chapter of this regulation. Not only, it is also not necessarily in line with the control requested to PGMs as described in previous chapter. To be removed. art 51(3)(a) This control mode is not defined in previous chapter of this regulation. Not only, it is also not necessarily in line with the control requested to PGMs as described in previous chapter. Definitions are very important including control expectation. This needs to be in deep defined before having it written in the regulation. This control mode has never been previously discussed or explained. art 51(6) Common practice is to check the capability of the generating unit considering worst case scenario rather than during a step change in the Scc. Simulation are carried out on data provided by System Operator. We strongly recommend to keep the present procedure. The step change would be in any case questionable.	2. With regard to the LFSM-O response simulation the following requirements shall apply: (a) the power-generating module's capability to modulate active power at high frequency in accordance with Article 13(3) shall be demonstrated by simulation; (b) the simulation shall be carried out by means of high frequency steps and ramps reaching minimum regulating level; (c) the simulation shall be deemed successful in the event that: (i) the simulation model of the power-generating module is validated against the compliance test for LFSM-O response described in Article 44(2); and (ii) compliance with the requirement set out in Article 13(3) is demonstrated. 3. With regard to the reactive power capability simulation, the following requirements shall apply: (a) The simulation shall be deemed successful if compliance with the requirement set out in point (a) of Article 14(3) is demonstrated. 6. With regard to the simulations on the system restoration requirement in paragraph (c) of Article 14(4), the power-generating module shall demonstrate its technical capability to operate

		stably in case of minimum short circuit level as defined in connection agreement
Article 52	art 52(2)(d) This control mode is not defined in previous chapter of this regulation. Not only it is also not necessarily in line with the control requested to PGMs as described in previous chapter. art 52(4)(a) Regarding the addition, This requirement is too much complex to be implemented. In addition specified simulation capability is not reflected in the control logics as described in the previous chapters. Island operation and system restoration are operational mode that need appropriate agreement and analysis. It is also questionable the use of FSM in island operation. We strongly recommend deleting this part.	2. With regard to the LFSM-U response simulation the following requirements shall apply: (a) the power-generating module's capability to modulate active power at low frequencies in accordance with point (c) of Article 15(2) shall be demonstrated by RMS simulation; (b) the simulation shall be carried out by means of low frequency steps and ramps reaching maximum capacity, taking into account the droop settings and the deadband; (c) the simulation shall be deemed successful in the event that: (i) the simulation model of the power-generating module is validated against the compliance test for LFSM-U response described in of Article 45(2); and (ii) compliance with the requirement of point (c) of Article 15(2) is demonstrated. ... 4. With regard to the island operation simulation the following requirements shall apply: (a) the power-generating module's performance during island operation referred to in the conditions set out in point (b) of Article 15 (4) shall be demonstrated by RMS simulation; (b) the simulation shall be deemed successful if the power-generating module reduces or increases the active power output from its previous operating point to any new

		operating point within the P-Q-capability diagram within the limits of point (b) of Article 15 (4), without disconnection of the power-generating module from the island due to over- or underfrequency.
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	Article ZZ Common Provisions on Equipment Certificates 1. In the case that the compliance scheme specified by the RSO provides for the use of equipment certificates issued by an authorised certifier in the context of Title III and/or Title IV, the equipment certificates shall comply with the following provisions: a) Any equipment certificate shall be based on the certification scheme as specified in the compliance scheme. b) The equipment certificates are classified into PGU certificates, component certificates and PGM certificates. The equipment certificates shall demonstrate the conformity with the specified requirements as defined in the compliance scheme by applying the respective evaluation and assessment measures according to the certification scheme c) Specified requirements referred to within equipment certificates may be defined by the requirements as set out in Title II, provided by a national implementation under this Regulation, by relevant internationally recognized European standards and/or alternative schemes that may also be applicable. 2. RSOs shall accept equipment certificates issued by authorized certifiers of any Member States whose accreditation is given by the respective national affiliate of the European cooperation for Accreditation ('EA'). 3. RSOs may accept equipment certificates that provide a statement of conformity with respect to specified requirements others than the requirements at national level implemented under this Regulation according to the provisions of Article 7 (1), i.e. the RSOs' national grid codes. In such case, the RSO shall specify the acceptance conditions within the compliance scheme, as well as which additional information needs to be provided in order to demonstrate the compliance of the equipment with the established

	requirements at national level implemented under this Regulation. 4. The compliance scheme defined by the RSO may define as eligible those equipment certificates where the statement of conformity covers only selected specified requirements (e.g. FRT, LFSM, etc.). These will be used within the compliance scheme required by the RSO. 5. RSOs may accept equipment certificates for PGU and/or components which belong to a family to the extent defined within the compliance scheme, required by each RSO, under which the assessed PGU and/or component is certified. This subset of PGUs and/or components shall comply with the definition for PGU family, if not otherwise defined in the compliance scheme.

Please upload figures or tables if necessary

The maximum file size is 1 MB

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	

Please upload figures or tables if necessary

The maximum file size is 1 MB

[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]		

[NEW] TITLE VI - Transitional 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 70a [new]		

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 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	

Please upload figures or tables if necessary

The maximum file size is 1 MB

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_RfG_ACER_draft_amendments_for_PC_2023_E_07.docx

Contact

acer-ele-2022-015@acer.europa.eu