

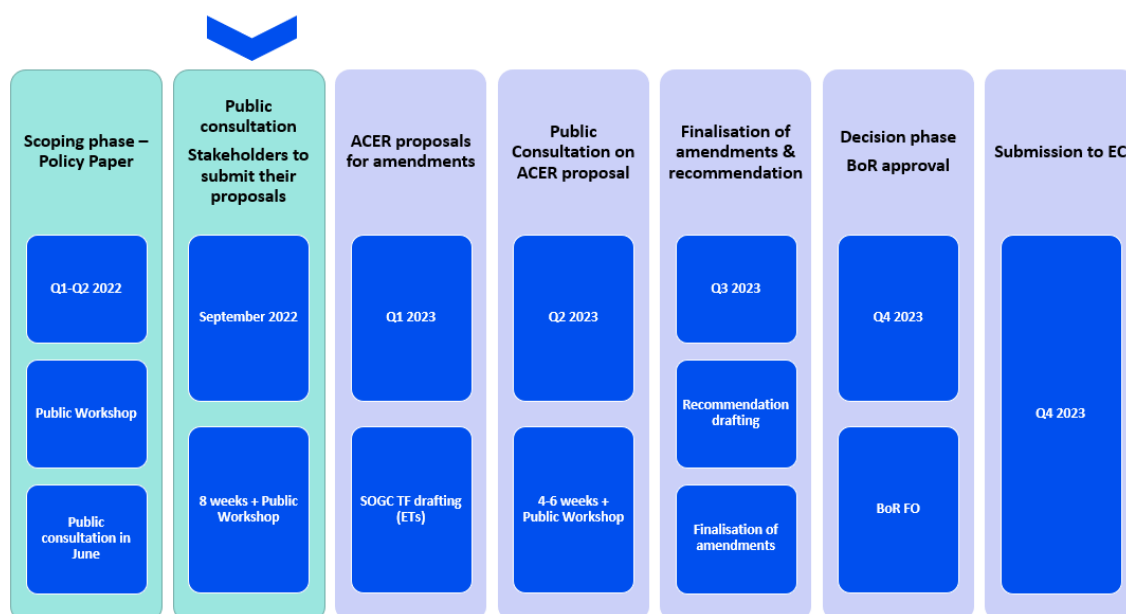
# Proposals for amendments to the Requirements for Generators

Fields marked with \* are mandatory.

## Introduction

Important developments in the policies of decarbonisation of the European Union (EU) energy and transport sectors have taken place since the inception of the development of the first European Grid Connection Network Codes (GC NCs) in 2012.

In the framework of the Grid Connection European Stakeholder Committee (GC ESC), the European Commission proposed for ACER to initiate the process towards the amendment of the existing GC NCs in September 2022. The amendment process, as presented to the GC ESC is outlined in the Figure below:



Following the scoping phase, ACER published the Policy Paper on the revision of the network code on requirements for grid connection of generators and the network code on demand connection in September 2022. The Policy Paper aims to transparently indicate to stakeholders the key policy areas in which amendments are to be expected. Moreover, the Paper draws on the alternative policy options and provides recommendations and proposed actions for the amendment process.

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

This consultation aims at gathering, from all interested stakeholders, concrete proposals for amendments to the Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a **Network Code on Requirements for Grid Connection of Generators** ('NC RfG').

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

**Responses to this consultation should be submitted by 28 November 2022 23:59 CET.**

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\* Name of the stakeholder:

Enel SpA

\* Contact person:

[REDACTED]

\* Contact person's email address:

[REDACTED]

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

Italy

\* 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:

Enel Spa is a European energy/electricity company, covering the activities within the entire value chain of electricity process

\* Do you consent to the publication of the stakeholder's name?

- ☒ Yes
- ☐ No

\* Do you consent to the publication of provided answers?

- ☒ Yes
- ☐ No (please, note that your answer, without your name and organization, may be shared with the EU institutions and national authorities, drafting team members, and other persons or entities involved in the European Grid Connection Network Codes amendment process)

## Instructions

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Stakeholders are invited to submit their amendment proposals to the RfG articles that they consider should be revised in a two-step process:

1. by inserting the proposed amendments in the provided Word file
2. by motivating/reasoning the proposed amendments through this online consultation form.

**Both steps are mandatory for all amendment proposals.**

(Where no amendment is proposed, the article text in the word file can be left unaltered and the cells in the consultation form can be left blank.)

The mandatory steps for submitting amendment proposals are detailed below. At the end of this section, you can find an example showing how to submit your proposals.

### *Step 1*

Please include all your amendment proposals in the **Word file provided below using the Track Changes mode**. Once you edit the file and rename it with your stakeholder's name ("NC\_RfG\_stakeholder\_name"), please upload it in the last section of this form (FILE UPLOAD)

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

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### *Step 2*

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

## General requirements for type B power-generating modules


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

	Amendment proposal	Reasoning	Relation to other provisions
Article 14(1)	1	2	3
Article 14(2)			
Article 14(3)			
Article 14(4)			
Article 14(5)			

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

4		Proposal for new provisions in this section	Reasoning	Relation to other provisions
	New provisions			

Please upload your file if necessary

 The maximum file size is 1 MB

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1. Propose an amended wording of the relevant provision, as you provided in the Word file.
2. Provide the motivation/reasoning behind your proposal.
3. Indicate (if any) which other provisions of the NC RfG are impacted and may need to be amended following your proposal.
4. Provide (if any) your proposals for adding new provisions to the relevant section of the Regulation, as you provided in the Word file.
5. Upload figures or tables if necessary; text inputs should be provided directly in the consultation form.

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## Example

Stakeholder XYZ would like to propose an amendment to Article 27 of NC RfG. In their view, the meaning of the word "respectively" in this article is not clear. Following a two-step process, the stakeholder downloads the Word file from the **Instruction** section, turns on the Track Changes mode and edits the text (first step).



#### Article 27

##### **System restoration requirements applicable to AC-connected offshore power park modules**

The system restoration requirements laid down respectively in Article 14(4) and Article 15(5) shall apply to AC-connected offshore power park modules types B and C, respectively.

#### Article 28

##### **General system management requirements applicable to AC-connected offshore power park modules**

The general system management requirements laid down in Article 14(5), Article 15(6) and Article 16(4) shall apply to AC-connected offshore power park modules.

After saving the edited file on their device under the name "*NC\_RfG\_Stakeholder\_XYZ*", the stakeholder uploads it in the **FILE UPLOAD** section.

### Pages

Introduction	Instruction	Whereas	Definitions	TITLE I	TITLE II CH. 1	TITLE II
TITLE III	TITLE IV	TITLE V	TITLE VI	TITLE VII	Other	<b>FILE UPLOAD</b>

## FILE UPLOAD

Please upload the Word file (downloaded from the *Instruction* section) containing all your amendments

The maximum file size is 1 MB

NC\_RfG\_Stakeholder\_XYZ.docx

Select file to upload

Previous

Submit

The stakeholder proceeds to motivate/reason their proposal. As they would like to propose an amendment to Article 27 of NC RfG, they enter **TITLE II CHAPTER 4** Section and insert the proposed amended wording and the reasoning (second step). As the proposed amendment of Article 27 does not affect other provisions, they leave the last column blank.

## Pages

[Introduction](#)[Instruction](#)[Whereas](#)[Definitions](#)[TITLE I](#)[TITLE II CH. 1](#)[TITLE II CH. 2](#)[TITLE II CH. 3](#)[TITLE II CH. 4](#)[TITLE III](#)[TITLE IV](#)[TITLE V](#)[TITLE VI](#)[TITLE VII](#)[Other](#)[FILE UPLOAD](#)

## TITLE II CHAPTER 4 - Requirements for offshore power park modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 23	//	//	//
Article 24	//	//	//
Article 25	//	//	//
Article 26	//	//	//
Article 27	The system restoration requirements laid down in Article 14(4) and Article 15(5) shall apply to AC-connected offshore power park modules types B and C, respectively.	The current wording of Article 27 refers to the provisions of Articles 14(4) and 15(5). However, it is unclear from the legal text how the respective application should be understood. Indicating that the requirements of Article 14(4) shall apply to offshore PPMs type B and requirements of Article 15(5) shall apply to offshore PPMs type C follows the internal logic of the NC RfG and corresponds with the capabilities of the units in question.	- //
Article 28	//	//	//

As the survey is long,

1. you have the possibility to edit your answer after submission. When clicking on "submit", you will be given a contribution ID, which you can then use to access your contribution here. This allows you to proceed in steps.
2. we kindly suggest that you download the entire survey as .pdf (link on the right), prepare your answers and then upload them at once in the EU Survey Tool, to avoid a session timeout on submission.

The maximum length of each cell is 5000 characters. This is the maximum technical limit set by the EUsurvey tool, which cannot be increased.

## Whereas Section

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

Numbers in the first column correspond with the recitals of the NC RfG Whereas section

	Amendment proposal	Reasoning	Relation to other provisions
(1)			
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			
(9)			
(10)	Amending	<p>To eliminate the referral to voltage level for different type of PGMs, it is fundamental to rearrange this part of text, erasing already since here the reference to voltage level for Type D PGMs.</p> <p>The rules of connection for different type of PGMs at different voltage levels should be defined at national level.</p>	
(11)	Comment	<p>Taking into account the new requirements that are establishing at ESC EG "Baseline for type A power-generating modules" level, the Type A and Type B could be harmonized.</p>	

(12)	Comment	Taking into account the new requirements that are establishing at ESC EG "Baseline for type A power-generating modules" level, the Type A and Type B could be harmonized.	
(13)			
(14)	Comment	<p>This part of sentence should be re-arranged, taking into account the proposal of erasing of any reference to voltage level which to connect the different type of PGMs ...</p> <p>The general description and scope of requirements should be refer only to the services provided by Type D, like the firsts types (A, B, and C)</p>	
(15)			
(16)			
(17)	Comment	The frequency and voltage deviation withstands for components and devices of the PGMs and in general of system equipment, shall be in accordance with corresponding existing international standard (IEC /CENELEC)	



(18)	Comment	Probably this part of text, could be cancelled. Avoiding in the foreword to mention and define numerical thresholds and so on ...	
(19)			
(20)			
(21)			
(22)			
(23)			
(24)			
(25)			
(26)			
(27)			
(28)			
(29)			
(30)			
(31)			

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

	Proposal for new recitals	Reasoning	Relation to other provisions
New recitals			



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

	Amendment proposal	Reasoning	Relation to other provisions
Article 2(1)			
Article 2(2)			
Article 2(3)			
Article 2(4)			
Article 2(5)	Amending	Including Storage in RfG NC	
Article 2(6)			
Article 2(7)			
Article 2(8)			
Article 2(9)			
Article 2(10)	Amending	To define explicitly the validity of CENELC Standards for Type A and B generators.	
Article 2(11)			
Article 2(12)			
Article 2(13)			
Article 2(14)			
Article 2(15)			
Article 2(16)			
Article 2(17)			
Article 2(18)			
Article 2(19)			
Article 2(20)			
Article 2(21)			
Article 2(22)			
Article 2(23)			

Article 2(24)			
Article 2(25)			
Article 2(26)			
Article 2(27)			
Article 2(28)			
Article 2(29)			
Article 2(30)			
Article 2(31)			
Article 2(32)			
Article 2(33)			
Article 2(34)			
Article 2(35)			
Article 2(36)			
Article 2(37)			
Article 2(38)			
Article 2(39)			
Article 2(40)			
Article 2(41)			
Article 2(42)			
Article 2(43)			
Article 2(44)			
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)	Amending	Including Storage provision	
Article 2(56)			
Article 2(57)			
Article 2(58)			
Article 2(59)			
Article 2(60)			
Article 2(61)			
Article 2(62)			
Article 2(63)			
Article 2(64)			
Article 2(65)			

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

	Proposal for new definitions	Reasoning	Relation to other provisions
New definitions	<p>a) Art 2 preamble changes</p> <p>b) New article 2.66</p>	<p>a) For the purposes of this Regulation, the definitions in Article 2 of Directive 2012/27/EU of the European Parliament and of the Council (3), Article 2 of Regulation (EC) No 943/2019, Article 2 of Commission Regulation (EU) 2015/1222 (4) Article 2 of Commission Regulation (EU) No 543/2013 (5) and Article 2 of Directive 2019/944 EC shall apply.</p> <p>b) New definition of EESSs – Storage System to be include in the PGMs definition</p>	

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## TITLE I - General provisions

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 1			
Article 3	Delete art 3. 2.d	Taking into account that the proposal is to introduce a new definition and consider in this code the EESSs such as PGMs, these point should be deleted, because these kind of PGMs have to be not more excluded.	
Article 4			
Article 5	Comment on Art.5 point 2 (a-d)	The general proposal is to delete or remove any referral about the voltage level where the PGMs, for each type (A, B, C or D), are connected.	
Article 6			
Article 7			
Article 8			
Article 9			
Article 10			
Article 11			
Article 12			

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

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New articles			

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## TITLE II CHAPTER 1 - General Requirements

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**General requirements for type A power-generating modules**

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 13(1)			
Article 13(2)	Amending by deleting 13 2g,	<p>All these items can be omitted, because the existing CENELEC family standard EN 50549 already defines these requirements and compliance tests. In those standards, are discussed and determined the specification also for EESSs.</p> <p>General consideration. All parts of RfG regarding technical specification for PGMs (for each one) already defined in EN 50549 family standard (Type A or B) should be eliminate from RfG code</p>	
Article 13(3)			
Article 13(4)			
Article 13(5)			
Article 13(6)			
Article 13(7)			

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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## **General requirements for type B power-generating modules**

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 14(1)	Amending	In general, regarding Type A and B PGMs, including also the EESSs - storage systems, it is better to refer all requirements to CENELEC EN 50549 family standards. This comment ss valid for each parts of article 14.	
Article 14(2)	Comments 14.2.b	Frequency response shall be different for different park module technology.	

Article 14(3)	Comments	<p>3. Type B power-generating modules shall fulfil the following requirements in relation to robustness.</p> <p>Probably, after the end of works of ESC GC EG BfTA the Type A generators will have to implement this function, so, could be more clear to move this description in the article 13.</p> <p>Also, from Figure 3 and forward, to the end of point 14.3..All these items can be omitted, be-cause the existing CENELEC family standard EN 50549 already defines these requirements and compliance tests</p>	
Article 14(4)			
Article 14(5)			



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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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## **General requirements for type C power-generating modules**

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 15(1)			
Article 15(2)	Comments art 15.2.c	Frequency response shall be different for different park module technology.	
Article 15(3)			
Article 15(4)			
Article 15(5)			
Article 15(6)			

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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**General requirements for type D power-generating modules**

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 16(1)			
Article 16(2)	Comments 16.2.v	<p>Table 6.1 and 6.2 shall be removed and replaced with the one in accordance IEC standards.</p> <p>The voltage range is not in accordance with the IEC 60071-1 that define the insulation level for the main equipment. The overvoltage shall be in accordance with the insulation level as per IEC</p>	
Article 16(3)	Comments 16.3,Table 7.2	It shall be clearly indicated that for withstand 0,85 for long time, main transformer tap changer can be taken into account.	
Article 16(4)			

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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

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### **Requirements for type B synchronous power-generating modules**



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

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

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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### **Requirements for type C synchronous power-generating modules**

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

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

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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## **Requirements for type D synchronous power-generating modules**

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

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

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			



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## TITLE II CHAPTER 3 - Requirements for power park modules

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### **Requirements for type B power park modules**

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

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

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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### **Requirements for type C power park modules**

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

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

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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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### **Requirements for type D power park modules**

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 22			



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

	Proposal for new provisions in this section	Reasoning	Relation to other provisions
New provisions			

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## TITLE II CHAPTER 4 - Requirements for offshore power park modules

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 23			
Article 24			
Article 25			
Article 26			
Article 27			
Article 28			

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

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New articles			

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## TITLE III - Operational notification procedure for connection

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 29			
Article 30			
Article 31			
Article 32			
Article 33			
Article 34			
Article 35			
Article 36			
Article 37			
Article 38			
Article 39			

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

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New articles			

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## TITLE IV - Compliance

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 40			
Article 41			
Article 42			
Article 43			
Article 44			
Article 45			
Article 46			
Article 47			
Article 48			
Article 49			
Article 50			
Article 51			
Article 52			
Article 53			
Article 54			
Article 55			
Article 56			
Article 57			
Article 58			
Article 59			

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

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New articles			

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## TITLE V - Derogations

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

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

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

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New articles			

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## TITLE VI - Transitional arrangements for emerging technologies

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

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

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

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New articles			



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## TITLE VII - Final provisions

---

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

	Amendment proposal	Reasoning	Relation to other provisions
Article 71			
Article 72			

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

	Proposal for new articles in this section	Reasoning	Relation to other provisions
New articles			

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## Other additional provisions

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

	Proposal for new provisions	Reasoning	Relation to other provisions
Other new provisions			

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## FILE UPLOAD

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Please upload the Word file (downloaded from the **Instruction** section) containing all your amendment proposals in the Track Changes mode.

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## Contact

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