

Note: concrete text amendments in the legal text are partly repeated

Paragraph	Amendment Proposal
Whereas	
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New definitions	
Definitions (Article 2)	
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New definitions	
TITLE I - General provisions	
Article 1	
Article 3	
Article 4	
Article 5	Fixed limit at 0,5MW from which a PGM is of type B for Continental Europe and Baltic
Article 6	
Article 7	(4) 2nd Sentence: shorter time period... Shorter time periods must be considered with all stakeholders and with respect to the best economic solution. There must be serious reasons here (e.g. critical grid stability).
Article 8	
Article 9	
Article 10	
Article 11	
Article 12	
New articles	
TITLE II CHAPTER 1 - General Requirements	
Article 13 - General requirements for type A power-generating modules	
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2	(i) Specify "stably" Does this imply a specific reaction in dynamic conditions? If yes, specify conditions and requirements.
2	2d, table 2: implement article 13, 2d into 13 table 2 for transparent reason
3	(g) Sentence 3: What is meant by "block active power LFSM-O mode"? Does this mean, the activation of the LFSM-O is blocked, or the change of active power is blocked while LFSM-O is active? What is the required behaviour of the blocking is released?
3	(g) specify the interface "external signal"

3	(g) i+ii - For PV and battery inverters below 1 s for ΔP of 100 % Pmax . - For wind turbines 2 s for $\Delta P < 50$ % Pmax. - For combustion engines, gas turbines, fuel cells below 2 MW 66% /min for a 100% change. - For combustion engines, gas turbines, fuel cells above 2 MW 20% /min for a 100% change.
3	(h) first paragraph: specify parameters for characteristic curves
4	Wrong references: change to "paragraphs 3 and 5 of this Article
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7	The DSO can give the power generation module the release for operation.
7	specify the interface
8	
9	Replace in the first line "paragraph (7)" by "paragraph (8)
10	This requirement is not clear especially for small generators. Requirement should be redrafted to understand its intent.
11	(a)(i) very low droop settings may lead to instability of the grid
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14	Exclusions for certain technologies such as for small μ CHP generators up to 50 kW are necessary so that reference to Article y is not applicable
Article 13a - General requirements for type EV1 and EV2 V2G electric vehicles and associated V2G ele	
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2	Define "cyber-protection"; Are there any other requirements to this interface or is a galvanic isolated digital input and output sufficient?
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5	Figure YY: Droop in the figure is 1% and in 5(b) the droop is 5%. Correct the droop.
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Article 14 - General requirements for type B power-generating modules	
1	Wrong reference: Change "Article 13(2)(b)" to "Article 13(3)(b)"
3	(a)+(b) If threshold Type A/B maybe smaller than 50 kW: otherwise exclusions for μ CHP are necessary as made in EN 50549-1 /-2.
3	(c) The level of this high voltage ride through are for small combustion based generators e.g. μ CHP in contradiction with the requirements for all the controls and fitting according to EU Regulation (EU) 2016/426 GAR. It is therefore requested to exclude this requirement for those generators ≤ 50 kW as "always Type A area" as being suggested to be included in Article 5.

3	(c) The auxiliaries, load connected to the grid are not designed to allow those voltages, therefore the generator does not need to stay connected to something which should not happen in the grid.
4	(b) Wrong reference: Change "Article 13(7)" to "Article 13(8)"
5	(d) specify the interface
New provisions	
Article 14a - Requirements for type EV3 electric vehicles and associated V2G electric vehicle supply e	
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New provisions	
Article 15 - General requirements for type C power-generating modules	
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New provisions	
Article 16 - General requirements for type D power-generating modules	
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New provisions	
TITLE II CHAPTER 2 - Requirements for synchronous power-generating modules	
Article X - Requirements for type A synchronous power-generating modules	
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New provisions	
Article 17 - Requirements for type B synchronous power-generating modules	
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New provisions	
Article 18 - Requirements for type C synchronous power-generating modules	
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New provisions	
Article 19 - Requirements for type D synchronous power-generating modules	
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New provisions	
TITLE II CHAPTER 3 - Requirements for power park modules	
Article Y - Requirements for type A power park modules	
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4	<i>Tables x.2.1 & X.2.2: FRT capabilities not defined</i>
5	<i>Define the behavior for grid forming</i>
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8	<i>c)(ii) very vague wording Which settings need to be provided by the power park module?</i>
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Article 20 - Requirements for type B power park modules	
1	Wrong reference: Change "Article 13(2)(b)" to "Article 13(3)(b)"
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3	The paragraph is inconsistent: In 3. is stated that the power park module SHALL fullfull the following requirements, but in (a) and (b) are requirements and hints in which way the TSO may define these requirements. It is not clear which requirements the power park module SHALL fulfil.
3	(b)(i): Wrong reference? "points (b) and (c) of paragraph 2" of which article? Paragraph 2 of this article has only point (a).
New provision (4)	
Article 21 - Requirements for type C power park modules	
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New provisions	
Article 22 - Requirements for type D power park modules	
Article 22	
New provisions	
TITLE II CHAPTER 4 - Requirements for offshore power park modules	
Article 23	
Article 24	
Article 25	
Article 26	
Article 27	
Article 28	
New articles	
TITLE III - Operational notification procedure for connection	
Article 29	
Article 30	In 2(f) it is required that at minimum a reference to the certificate must be provided. So how can (g) be relevant?
Article 30a	In 2(d) it is required that at minimum a reference to the certificate must be provided. So how can (e) be relevant?

Article 31	
Article 32	
Article 33	
Article 34	
Article 35	
Article 36	
Article 37	
Article 38	
Article 39	
New articles	
TITLE IV - Compliance	
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	
New articles	
TITLE V - Derogations	
Article 60	
Article 61	
Article 62	
Article 63	
Article 64	
Article 65	
New articles	
TITLE VI - TRANSITIONAL PROVISIONS	
Article 66	
Article 67	
Article 68	
Article 69	
Article 70	
New articles	
TITLE VII - Final provisions	
Article 71	
Article 71a	

Article 72	
New articles	
Other additional provisions	
Other new provisions	

According to Acer paper: 260908 ACER GCNCs Policy Paper_final, Article 18: Requirements for type A PGMs
The technical capabilities of power-generating modules have a massive impact on system security. All connected equipment must be sufficiently robust to withstand disturbances and help prevent major interruptions or support the reconstruction of the grid after a collapse. The EU Member States set different classifications for the threshold values. This results in a range for the threshold between type A and type B, which amounts to between 0.011 MW and 1.5 MW. In view

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New requirements are leading to time consuming developments and certifications of PGMs.

There must be a uniform interface for communication in Europe.

W.r.t the ACER Policy Paper (48) 1st paragraph and draft NC RfG, whereas (27), the value given in (i) and ii) shall not just distinguish between synchronous and power park modules but also mention technologies used with their dynamic characteristics as e.g. given in EN 50549-1 /-2.

Uniform characteristic curves for the frequency response should be defined across Europe. This avoids incorrect settings in type A bulk business.

"Operable" is too general.
For example, combustion engines require pre-lubrication / pre-heating, which must not be started by third parties in an uncontrolled manner.
There must be a uniform interface for communication in Europe.

see ACER Policy Paper (48) 1st paragraph and draft NC RfG, whereas (27),
Rational: See results on EG Baseline for Type A report and related requirements in EN 50549-1 / -2. Exemption is only acceptable for CHP and generating units based on rotating machinery below 50 kW as EN 50465 for gas appliance requests disconnection in case of under voltage.

ctric vehicle supply equipment

There must be a uniform interface for communication in Europe.

equipment and V2G electrical charging parks

