Contribution ID: 71d79cdf-aea9-4d28-bfc8-be861eff64d3
Date: 10/06/2022 08:52:59

ACER Public Consultation on the Policy Paper on the revision of NC RfG and NC DC

Fields marked with * are mandatory.

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 process, as presented to the GC ESC is outlined in the Figure below:

Please note that this public consultation belongs to the **first** phase of the process (scoping phase) that will be followed by the call for stakeholders to submit their proposals in September 2022 during the 8-week long consultations.

For the avoidance of doubt, the Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (NC HVDC) is out of the scope of this consultation as the work on its amendment is expected to start in 2023.

The purpose of this consultation is to gather views, feedback and input from all stakeholders on the Policy Paper (link) drafted within the scoping framework of the process. This consultation is addressed to all interested stakeholders. Consulted Policy Paper, planned to be published by September 2022, aims to transparently indicate to stakeholders the areas in which amendments are to be expected, as regards:

- Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (NC RfG) - link
- Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection (NC DC) - link

Replies to this consultation should be submitted by 10 June 2022 23:59 CET.

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* 2 Name of the stakeholder:

EUGINE – European Engine Power Plants Association

* 3 Contact person:

Annette Jantzen

* 4 Contact person's email address:

annette.jantzen@eugine.eu

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

Belgium

* 7 Type of the stakeholder:

Note: Please, choose the type of organisation that is the most accurate description of the stakeholder

- (●) Generator (including association)
- ( ) Consumer (including association)
- ( ) Transmission system operator (including association)
- ( ) Distribution system operator (including association)
- ( ) Academia/research institution
- ( ) Other (please, elaborate)

8 Please, elaborate on your answer above, if necessary:

Manufacturer association of SPGMs. The members of EUGINE operate in all EU countries listed in point 5.

* 9 What is the impact of the NC RfG or NC DC legal requirements on your organisation?

- [x] Direct impact (provisions are applicable to my organisation)
- [x] Possible direct impact (e.g., applicability in the foreseeable future)
- [x] Indirect impact (e.g., provisions apply to my contractors)
- [ ] No relevant impact
- [ ] I do not want to specify the impact
- [ ] Other (please, elaborate)

10 Please, elaborate on your answer above, if necessary:

Compliance with the NC RfG requirements is the basis for SPGM design.

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

- (•) Yes
- ( ) No

* 12 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 adoption process of the consulted Policy Paper)

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14 Knowing that the exact proposals for amendments will be sought during the public consultation starting in September, please, provide your general comments or views on this Policy Paper, if any:

EUGINE overall agrees with the ideas presented in the Policy Paper. We do nevertheless miss a mention and consideration of the following points:
- ENTSO-E member states' harmonized product family definition,
- applicability and acceptance of simulation model within the product family,
- a general definition of SPGM (total power at PoC vs individual power) and
- the harmonization of PGU certification approach.

* 15 Is there any area that you consider important but has not been covered by this Policy Paper?

- (•) Yes
- ( ) No
- ( ) Other

16 Please, elaborate on your answer above, if necessary:

The most important points that, in our view, would also need to be covered are:
a) Family definition and use of existing certificates (or harmonized approach towards certification), including acceptance of validated models among ENTSO-E member states.
b) Additionally, a harmonized classification of Types A, B, C and D at EU level, including a harmonised approach to SPGM definition (individual power vs total plant power) for Type classification.
c) a modification of the protection list for Type A and B (in some cases even C) regarding rotor earth fault would be required, as this can have a significant impact on the costs of generators.
d) Include the definition of “prototype declaration” as specified in VDE-R-N 4110/4120. This is important that manufactures have possibility to introduce new technologies.
e) Consider test permission approach of plants to demonstrate grid code compliance.
f) Harmonize limits for all FRT events, including symmetrical FRT, asymmetrical FRT, and over-/underexcited operation FRT.

* 17 To what extent do you agree with the policy analysis and recommendations on the **requirements for pump-storage hydro PGMs**:

- ○ 5 (strongly agree)
- ○ 4 (agree)
- ◉ 3 (neutral)
- ○ 2 (disagree)
- ○ 1 (strongly disagree)

18 Please, elaborate on your answer above, if necessary:

* 19 To what extent do you agree with the policy analysis and recommendations on the **determination of significance of PGMs**:

- ○ 5 (strongly agree)
- ◉ 4 (agree)
- ○ 3 (neutral)
- ○ 2 (disagree)
- ○ 1 (strongly disagree)

20 Please, elaborate on your answer above, if necessary:

Small units connected at HV have little impact on system stability, so it should be decided case by case if those Type D requirements must be met. This requirement can have a significant impact on the total price of a unit.
In paragraph 40, the authors state that a complete removal of the voltage criteria for all types of PGMs does not seem to be a viable solution. From a synchronous generator manufacturer perspective, it would nevertheless appear as a good solution to remove the voltage criteria completely, so making the assessment of type purely on the basis of (unit/module) MW capacity size. If that was implemented, all technical requirements would depend on the (MW) capacity.

More clarity is needed on the type classification of synchronous power generating modules (SPGM) – there are today some inconsistencies across EU member states on how the determination of significance is applied (installed capacity vs individual unit rating). It would be helpful for SPGM manufacturers if the legislation clearly defines how the type classification should be considered (G99 is a good example).

* 21 To what extent do you agree with the policy analysis and recommendations on the **technical requirements for mixed customer sites with generation, demand and storage**:

- ○ 5 (strongly agree)
- ◉ 4 (agree)
- ○ 3 (neutral)
- ○ 2 (disagree)
- ○ 1 (strongly disagree)

22 Please, elaborate on your answer above, if necessary:

Some additional clarifications on the grid code compliance for mixed customer sites are needed, especially on whether the compliance is required to be fulfilled based on each technology separately or on the complete plant together with all mixed customer site at connection point.

As SPGM manufacturers, we would prefer a type-classification (and therefore technical requirements) based solely on the (unit/module) MW capacity size and technology, and thus entirely discard the voltage criteria.

* 23 To what extent do you agree with the policy analysis and recommendations on the **requirements for type A PGMs**:

- ○ 5 (strongly agree)
- ◉ 4 (agree)
- ○ 3 (neutral)
- ○ 2 (disagree)
- ○ 1 (strongly disagree)

24 Please, elaborate on your answer above, if necessary:

Harmonizing the PGM thresholds would be an advantage.

* 25 To what extent do you agree with the policy analysis and recommendations on the **significant modernisation**:

- ○ 5 (strongly agree)
- ◉ 4 (agree)

- 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

26 Please, elaborate on your answer above, if necessary:

It would need to be made clear what requirements need to be met once a part is updated (e.g. when the AVR is modified and the generator has capacity, which requirements need to be met).

Component firmware updates should not lead to a completely new compliance review. Manufacture declaration for backward compatible should be sufficient.

* 27 To what extent do you agree with the policy analysis and recommendations on the **technical requirements for storage**:

- 5 (strongly agree)
- 4 (agree)
- (•) 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

28 Please, elaborate on your answer above, if necessary:

* 29 To what extent do you agree with the policy analysis and recommendations on the **electromobility**:

- 5 (strongly agree)
- 4 (agree)
- (•) 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

30 Please, elaborate on your answer above, if necessary:

* 31 To what extent do you agree with the policy analysis and recommendations on the **simulation models and compliance monitoring**:

- 5 (strongly agree)
- (•) 4 (agree)
- 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

32 Please, elaborate on your answer above, if necessary:

Having a general acceptable simulation model all over the EU will help manufacturers minimize the most difficult and expensive tests (FRT) while allowing site-specific FRT simulation checks.

Common requirements would be a positive step forward, but should be aligned with ISO/IEC/EN standards and industry best practice (FGW TR4).

The request for unencrypted models is a concern for manufacturer intellectual models' confidentiality. In this case, generic models could be provided.

Simulation model requirements shall be software neutral - National authorities should not define certain simulation software and give extra privilege to special software manufacturers. This does not uphold the principle of fair competition.

Instead, EUGINE, through is Task Force Network Codes, proposes that national authorities and grid operators give options for multiple simulation software selection. If the grid operators have difficulties in maintaining various types of simulation software, then they should only require generic models based on IEEE definitions (mathematical representation in block diagram format).

* 33 To what extent do you agree with the policy analysis and recommendations on the **advanced capabilities for grids with high penetration of DER**:

- 5 (strongly agree)
- 4 (agree)
- (•) 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

34 Please, elaborate on your answer above, if necessary:

We see the danger that a "smarter approach" might result in higher requirements for PGM manufacturers, which comes with more effort, time and cost for development, internal validation, type testing and certification. Consideration should be given to the impact on manufacturers.

* 35 To what extent do you agree with the policy analysis and recommendations on the **requirements for weather hazards resilience of generators**:

- 5 (strongly agree)
- 4 (agree)
- (•) 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

36 Please, elaborate on your answer above, if necessary:

The Policy paper does not contain any details about this topic, it just gives an overview in the introduction. In our view, it is important to have consensus of the manufacturers before publishing any such requirements.

* 37 To what extent do you agree with the policy analysis and recommendations on the **technical requirements for active customers/energy communities**:

- 5 (strongly agree)
- 4 (agree)
- (•) 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

38 Please, elaborate on your answer above, if necessary:

* 39 To what extent do you agree with the policy analysis and recommendations on the **requirements for units providing demand response services**:

- 5 (strongly agree)
- 4 (agree)
- (•) 3 (neutral)
- 2 (disagree)
- 1 (strongly disagree)

40 Please, elaborate on your answer above, if necessary:

Contact

Contact Form