

Expert group: Baseline for type A power-generating modules (EG BftA)

Approved by the GC ESC on 04 June 2020
Subject to possible updates on the list of members

Chair: CEDEC, Florentien Benedict

Vice-Chair: to be nominated

Problem Statement

On 11 September 2019, the Grid Connection European Stakeholder Committee (GC ESC) decided to establish an expert group to review the Baseline for type A power generating modules (BftA). The creation of this EG was proposed by ENTSO-E to elaborate on connection network code (CNC) issues, which have been raised by stakeholders representing both generation and demand during the CNC implementation. The ENTSO-E proposal was based on a stakeholder survey to identify priority topics. As most of type A Power Generating Modules (PGMs) are connected to distribution systems, DSOs volunteered to chair the expert group.

Target (objectives)

The objective of the EG BftA is to investigate the potential need for further specifications or any modifications of the requirements of type A Power Generating Modules and if these modifications could have an impact on the selected thresholds between type A and type B.

The immediate issues for consideration include¹:

- Considering different banding values implemented across the EU, the requirements that have already been imposed on type B, do we also want to declare them on type A?
- Are there any new or additional items or requirements that we want to add to type A based on the evolving system needs and taking into the account the requirements provided in the EN 50549-01 and -2?
- Based on the expected growth in population size, should type A requirements differs for Power Park Modules (PPMs) and Synchronous Power Generating Modules (SPGMs) just like it is with type B?
- Any new insight and method of determining the certification obligations for type A and possible harmonization.
- Assessment of possible benefits from harmonizing the thresholds between type A and B PGMs.

¹ As a feedback from the current NC implementation process, it is important to highlight that the thresholds of type A in all member states are not equal. Therefore, any requirement in a certain member state for type B does already relate to 'type A' just because of the low active power range of type A in that member state. This, compared to another member state with a higher threshold for type A, will not be the case in another member state.

A few key examples (non-exhaustive) for the expert group of system needs for new requirements are:

- fault ride through capabilities,
- the possibility of modulating active power output by the system operator (the power-generating module shall be equipped with an interface (input port) in order to be able to reduce active power output following an instruction at the input port),
- harmonization of frequency requirement at synchronous area level,
- making the Equipment Certificate régime mandatory for type A in all the member states, but taking into account emerging technologies.

The EG shall consider the case for additional requirements for type A implemented by each Member States on national level.

The EG will exclusively focus on type A PGMs, including highlighting requirements of type B PGMs which impacted national decisions for the banding (threshold between type A & B).

If necessary, the EG BftA will proceed to derive recommendations on how the NC RfG can be further improved to incorporate the results of this analysis with respect to the scope of NC RfG and implications to other NCs/GLs, if any.

Legislative background

NC RfG Article 5(1) requires that “*The power-generating modules shall comply with the requirements on the basis of the voltage level of their connection point and their maximum capacity according to the categories set out in paragraph 2.*”

Also, NC RfG Article 13 provides the general requirements for type A power-generating modules. In article 13 there are seven paragraphs that describe the requirements for Type A power-generating modules.

Then, in NC RfG Article 14 the general requirements for type B power-generating modules follow. Type B power-generating modules shall fulfil all the requirements set out in Article 13, except for Article 13(2)(b) and then another 4 paragraphs (2 to 5) describe the requirements for type B on top of the previously stated requirements type A.

The Directive (EU) 2018/2001 on the “promotion of the use of energy from renewable energy” mentions in article 16 and article 17 among other things a fast permit process for less than 150kW (less than 1y) (16.5) and , a mandatory “simple-notification procedure” (1 month period) up to 10.8kW and non-mandatory up to 50kW (17.2).

Task description

- Discussions with stakeholders and stakeholder interventions at the GC ESC have revealed that maybe the existing articles in the NC RfG are not sufficient.
- It should be investigated if a more extensive set of requirements for type A can contribute to better system operation and more cost-effective secured EU power system.
- As implementation of all possible and desirable extra requirements is not practicable, the expert group shall preferably try to derive the ones which will make an important contribution to overall system operation.

- The EG shall exclusively focus on PGMs, type A as these facilities were subject of stakeholder interventions at the GC ESC, however shall take into account consequences for type B where relevant.
- Suggest revisions to Article 13(1) and any other relevant Articles of NC RfG according to the results and observations of the technical assessment. If formal changes to the NC RfG are not appropriate the results of the expert group could be made available as an input for a new IGD or modification of an existing IGD to be developed by ENTSO-E
- List and briefly assess any possible implications to other NCs/GLs that those revisions to NC RfG may have.

Deliverables

- Report to the GC ESC on specific requirements for the baseline for type A PGMs and the consequences on that, including elements for a possible harmonised certification of type A PGM.
- Derive proposals for the potential revisions to:
 - NC RfG along with justifications; and
 - Associated non-binding implementation guidance documents.

Timing

- estimated 9 months from June 2020.

Team (update 10.06.2020)

The following nominations to participate in EG BftA have been received (name and association):

<i>Name</i>	<i>Organization</i>	<i>Representation at GC ESC</i>
<i>Florentien Benedict</i>	STEDIN	CEDEC
<i>Marc Malbrancke</i>	CEDEC	CEDEC
<i>Alberto Bridi</i>	EDYNA	CEDEC
<i>Carmen Longás Viejo</i>	REE	ENTSO-E
<i>TBC</i>	Amprion	ENTSO-E
<i>Ioannis Theologitis</i>	ENTSO-E	ENTSO-E
<i>Dan-Eric Archer</i>	Checkwatt	SolarPower Europe
<i>Juan Pena De Juana</i>	SMA	SolarPower Europe
<i>Naomi Chevillard</i>	SolarPower Europe	SolarPower Europe
<i>Eric Dekinderen</i>	VGB	VGB
<i>Martin Bruns</i>	VOITH	VGB
<i>Santiago Gallego</i>	Iberdrola	E.DSO
<i>Søren Stig Abildgaard</i>	EC Power	COGEN Europe
<i>Simon Minett</i>	Challoch Energy	COGEN Europe
<i>Alexandra Tudoroiu</i>	COGEN Europe	COGEN Europe
<i>Mike Kay</i>	ENA	GEODE
<i>Vincenzo Trovato</i>	ACER	ACER
<i>Eckhard Schwendemann</i>	BDH	CENELEC

Estimated resource

- monthly webinars;
- 3 f2f meetings; and
- total commitment of 10 days per member.

Target audience

- GC ESC
- Relevant and/or interested stakeholders on the Connection Network Codes