

# Baseline for type A power- generating modules

(EG BftA)

Florentien Benedict

17-09-2020

# Baseline for type A power-generating modules

- EG BftA → Abbreviation!
- Update until September 14th (2020)

# Vice-chair

- Søren Stig Abildgaard, Mechanical Engineer at EC offers to participate as vice-chair.
- Does the ESC/ACER agree with this?

# First meeting

- Very high turnout of participants
- Getting to know each other
- Started with the 'where as
- Started with the subjects

# Where as (1)

- **Rationale of the RfG (Whereas (4) System security and Whereas (5) Secure system operation)**
- *(4) System security depends partly on the technical capabilities of power-generating modules. Therefore regular coordination at the level of the transmission and distribution networks and adequate performance of the equipment connected to the transmission and distribution networks with sufficient robustness to cope with disturbances and to help to prevent any major disruption or to facilitate restoration of the system after a collapse are fundamental prerequisites.*
- *(5) Secure system operation is only possible if there is close cooperation between power-generating facility owners and system operators. In particular, the functioning of the system under abnormal operating conditions depends on the response of power-generating modules to deviations from the reference 1 per unit (pu) values of voltage and nominal frequency. In the context of system security, the networks and the power-generating modules should be considered as one entity from a system engineering point of view, given that those parts are interdependent. Therefore, as a prerequisite for grid connection, relevant technical requirements should be set for power-generating modules.*

# Where as (2)

- There is no direct reference to the whereas section in the ToR of the EG BtFA, but it seems useful to keep this in mind during the exercise.
- There is no conflict with what is in the ToR, but starting point for the work is however the ToR.
- Members point out that making the link with the ToR, also whereas points (3) (harmonisation) and (26) (compliance testing) are important.
- *(3) Harmonised rules for grid connection for power-generating modules should be set out in order to provide a clear legal framework for grid connections, facilitate Union-wide trade in electricity, ensure system security, facilitate the integration of renewable electricity sources, increase competition and allow more efficient use of the network and resources, for the benefit of consumers.*
- *(26) Appropriate and proportionate compliance testing should be introduced so that system operators can ensure operational security.*

# Subjects

- **Do we want to declare any requirements on type A, that have already been imposed on type B?**
- **Should type A requirements differ for PPMs and SPGMs (just like it is with type B)?**
- **Determining the certification obligations for type A**
- **Harmonizing the thresholds between type A and B PGMs and different banding values implemented across the EU**

# Notable issues that emerged (1)

- Type A, big amount of PV, but small active power each!
- For inverter-type connected PGMs, like PV, additional requirements might not directly be a problem, but for small PGMs with other technologies not only the inverter is important, also the combustion side needs to be taken into account!
- Should we also consider Storage?
- There are indeed MS who have already added certain requirements for type A PGMs on top of the ones in the NC RfG.

# Notable issues that emerged (2)

- Should there be made a differentiation on the basis of technology?
- It is clear that because of this difference in choices of the different MS, the situation for additional requirements in the MS can be quite different.
- There are indications that MS have added certain requirements for type A PGMs on top of the ones in the NC RfG.
- this different approach per MS does not seem the right way of working if we want any kind of harmonisation.

# Notable issues that emerged (3)

- As mentioned in the ToR, the possible need for type A to be able to modulate active power output by the system operator, for which the PGM needs to be equipped with an interface (input port) in order to be able to reduce active power output following an instruction at the input port.
- Currently in NC RfG, the PGM of type A is equipped with a logic interface (input port) in order to cease active power output within five seconds following an instruction being received at the input port.
- Communication of the signals will however be the challenge.

# Thresholds

- We are warned not to focus on the definition of the threshold(s), since this is not a topic for this EG only. It has been brought up in the different EGs (e.g. storage, mixed customer sites, ...) already.
- We will start first with what requirements would be most likely needed for type A PGMs, try to make some harmonization on this level and afterwards look at the thresholds.
- Take care on the fact that the differences in thresholds between the MS was a specific request from the MS in the Comitology process to be able to finetune per MS, the same was valid for the non-exhaustive requirements in the NC RfG.

# Common space, next dates, draft report

- There is created a common space for the EG by ENTSO-E, very welcome!
- We will plan the meetings through to March 2021
- Of course we will be working with a draft report in progress