

# EG HCF - Harmonization of Product Family Grouping and Acceptance of Equipment Certificates at European Level

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# Overview

## Report Information

### **Final DRAFT information:**

- Release date: 17/02/23 (as approved in 28th GC ESC)
- Comments on delivered draft were addressed and new version prepared for release by the GC ESC

### **Topics discussed within the report:**

- Questionnaire results on existing EU compliance processes
- Family definition for PGU certificates (proposals per PGU technology and transferability of results within the family)
- Simulation Model for dynamic verification
- Harmonized equipment certificate approach for Type A
- Harmonized approach for certification acceptance at EU level

# Main Takeaways

From executive summary

## **I.- PGU vs PGM**

- PGU certificates can be harmonized at EU level
- These PGU certificates may cover specific (national) grid codes, more generic grid connection requirements (NC RfG, EN standards) or simply the PGU's outmost capability PGU certificates can be used within the process specified in the NC RfG to demonstrate compliance at the PoC
- TSO/DSOs will keep the right to require additional compliance simulations or on-site compliance testing

## **II.- EG HCF didn't identify a standardized approach for PGM compliance**

- this could be achieved either through a certification process at PGM level using the PGU certificates, or by accepting a PGMD (or similar document) coming from a PGF owner based on the content of the PGU certificate and additional site-specific testing and simulations

## **III.- The implementation of PGMDs (or similar documents) can be the key link between PGU compliance assessment at PGU terminals (PGU certification) and the PGM compliance in regard to the PoC**

- PGMD definition in the NC RfG is restricted to type B and C. It is recommended to create new expert groups and extend the PGMD concepts to type A and type D. The complexity of PGMDs is based on national definition and PGM size.

# Main Takeaways

From executive summary

## **IV.- Family definition applies to a group of related products that share common characteristics or features coming from a same manufacturer**

- Includes common points that define the Family and MUST be included
- Transferability of test results can be done within the family
- EG HCF suggests having a family definition per design technology which is manufacturer based, regardless of power range and voltage level

## **V.- Simulation model is a KEY tool to evaluate PGU and PGM performance**

- Reduce amount of test permission applications to relevant SO and reduce test disturbance to the grid
- A validated model using existing quantitative methodologies (very stringent) provide high level of fidelity and allow better understanding of the FRT performance of the unit.
- The model shall correctly represent the structure of the unit and shall be validated against testing results
- This model shall be used within the overall facility simulation model which shall correctly represent the structure of the system/module/unit including the system parameters

# Main Takeaways

From executive summary

## **VI.- Formal requirements on PGU certification**

- Unambiguous reference to certification programmes that are accepted by the RSO
- Clear definition of specified requirements that are accepted by the RSO

## **VII.- Umbrella certification is the most promising approach for harmonization of PGU certificates**

- certification on EU level may be provided by a “capability certificate” that can easily be enhanced by grid code specific conformity statements