



CENELEC

EUROPEAN COMMITTEE
FOR ELECTROTECHNICAL STANDARDIZATION

CENELEC TC8X UPDATES

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30 th Grid Connection European Stakeholder Committee meeting (GC ESC)

Thursday, 15th June 2023, physical and online meeting

50549-1 & 2

STATUS AND NEXT STEPS

- ▶ CENELEC circulated to the National Committees for enquiry on 2023-05-19
 - ▶ EN 50549-2:2019/prA1:2023
 - ▶ EN 50549-1:2019/prA1:2023CCMC

ESG-GC-EGs

STATUS AND NEXT STEPS

- ▶ WG03 actively supported HCF and ACPPM, to speed energy transition in the single market perspective
- ▶ Reports of the 2 EGs have been discussed on a WG03 meetings held on 2023-04-20.
 - ▶ HCF conclusions will be immediately considered in 50549-10 evolutions (see previous point)
 - ▶ From ACPPM conclusions it appears that further Standardization is needed as Grid-forming functionalities are not yet defined in detail such to allow an immediate massive implementation
- ▶ To speed up the additional needed Standardization and to further support Grid-forming definition, WG03 defined and proposed a NWIP to TC8X
- ▶ A questionnaire was prepared from TC8X Secretary and sent to NCs, voting expired on 2023-03-24. NWIP was approved with 12 Y, 1 A 3 N, with the aim to define 50549-20 TS. Description in the following.

- ▶ CENELEC positions about a correct and massive integration of grid forming PPMs in distribution grids
 - ▶ An agreement among all the involved Relevant System Operators is necessary. Acer proposal is: *“The relevant system operator may specify in the connection agreement that the activation of grid forming mode is subject to necessary adaptations to the system operator’s network and operating and maintenance procedures”*.
 - ▶ There is need of proper standardization
 - ▶ the proposed legal text is not able to provide the needed degree of technical details to allow a correct harmonization in Europe without need of national implementations.
 - ▶ Grid-forming detailed definition at European level would allow Manufacturers in products development and testing and RSOs in performing needed simulations.
 - ▶ Reference to standardization needs to be strengthened and standards must not only be “considered” but must be “applied” (limited national deviations justified to NRAs.
 - ▶ Protection strategies and operation solutions not mature enough to allow a fast massive introduction of GFCs on distribution networks of each EU Country
 - ▶ GFCs on the other hand, could be immediately connected to the HV/MV busbars.⁶

NWIP 50549-20

- ▶ New work item proposal: CLC/TS 50549-20 - Requirements for generating plants to be connected in parallel with electrical networks - Part 20: Definitions and tests of the electrical characteristics of grid-forming generating and storage units

Preliminary roadmap	Phase	Event(milestone)	Stage-code	realized	
	Proposal and decision on WI	Proposal of WI for approval		10.00.0000	28/03/2023
		Decision on WI Proposal		10.99.0000	01/06/2023
	Dating of 1° working doc	Circulation of st WD		20.60.0979	31/10/2023
	Consensus and consolidation	Acceptance of TS draft		30.99.979	31/03/2024
	Finalization of standard	DOR/ratification		60.55.0000	31/07/2024

Expected finalization of the TS – 31/07/2024 in case of positive decision on WI proposal

- ▶ Kick off meeting: 2023-04-27
- ▶ Project leader Roland Singer (Fraunhofer Institute)
- ▶ Decisions:
 - ▶ Regular online meeting ones a month for the whole TF
 - ▶ Work splitted in more topics dealt independently from dedicated subgroups:
 - ▶ Voltage Source behaviour
 - ▶ Support of Power Quality
 - ▶ Inertial response
 - ▶ Overload situations
 - ▶ Controller interaction
- ▶ Recruitment of further experts on course. At present presence of Manufacturers, Test Labs and TSOs from 3 Countries

TC8X WG03 new scope

- ▶ A questionnaire was prepared from TC8X Secretary and sent to NCs, voting expired on 2023-03-31
- ▶ As a result of the voting, 12 Y, 1 N, 3 A
- ▶ WG03 new title is "Requirements for connection of generators and dispatchable loads to distribution networks" therefore including in its activity also "dispatchable loads" and related items