

Update on Technical Groups On-going and planned activities

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13th Grid Connection European Stakeholder
Committee Meeting

21 March 2019, Brussels

Technical Groups

- High Penetration
 - Compliance Monitoring
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Technical Group on High Penetration (TG HP)

- Volunteers from 6 stakeholder groups:
 - TSOs: 2 Representatives
 - Wind Manufacturing Industry: 4 Representatives
 - HVDC Manufacturing Industry: 2 Representatives
 - PV Manufacturing Industry: 1 Representative
 - Power System Analysis tool providers/Consultants: 2 Representatives
 - Academia: 2 Representatives
- Stage 2 (2017 – 2019): High Penetration (HP)
Longer term analysis and input into issues of extreme high penetration
- Is currently working on a joint report on grid forming capabilities
 - Contribution for setting up requirements on grid forming capabilities in future grid/network codes
- Inputs:
 - Links to research projects e.g. Migrate and Osmose
 - Projects with focus grid forming were already collected
 - Liaison with EG hosted by National Grid
- Meetings/webinars every 2-3 weeks

Structure of the report

- 1 Abbreviations.
- 2 Terminology and Definitions.
- 3 Situation of European Power Systems as of today.
- 4 Power System Development up to 2030.
- 5 Power System Needs.
 - 5.1 Classification of scenarios.
 - 5.2 Classes of Power Electronic Interfaced Power Systems.
 - 5.2.1 Class 1 PPMs or HCSs.
 - 5.2.2 Class 2 PPM / HCS.
 - 5.2.3 Class 3 PPM / HCS.
 - 5.3 Requirements for Grid Forming Power Electronic Interfaced Power Systems.
 - 5.3.1 Create system voltage.
 - 5.3.2 Contribute to fault level
 - 5.3.3 Fault current contribution.
 - 5.3.4 Sink for unbalances.
 - 5.3.5 Sink for harmonics.
 - 5.3.6 Contribution to inertia.
 - 5.3.7 First cycle survival / emergency support, survival of LFDD.
 - 5.3.8 Prevent adverse control interaction.
 - 5.4 Must-Run Units.
 - 5.5 Spatial Distribution of Grid Forming Units or Must-Run Units.
- 6 Proposed Tests and Benchmarking.
- 7 Literature References.
- 8 Annex.

PPM: Power Park Module
HCS: HVDC Converter Stations
LFDD: Low Frequency Demand Disconnection

Final Draft is expected by mid-2019
The draft will be circulated for comments
beyond the TG (consultation)
Depending on the comments, the final
version is expected during Q4 2019

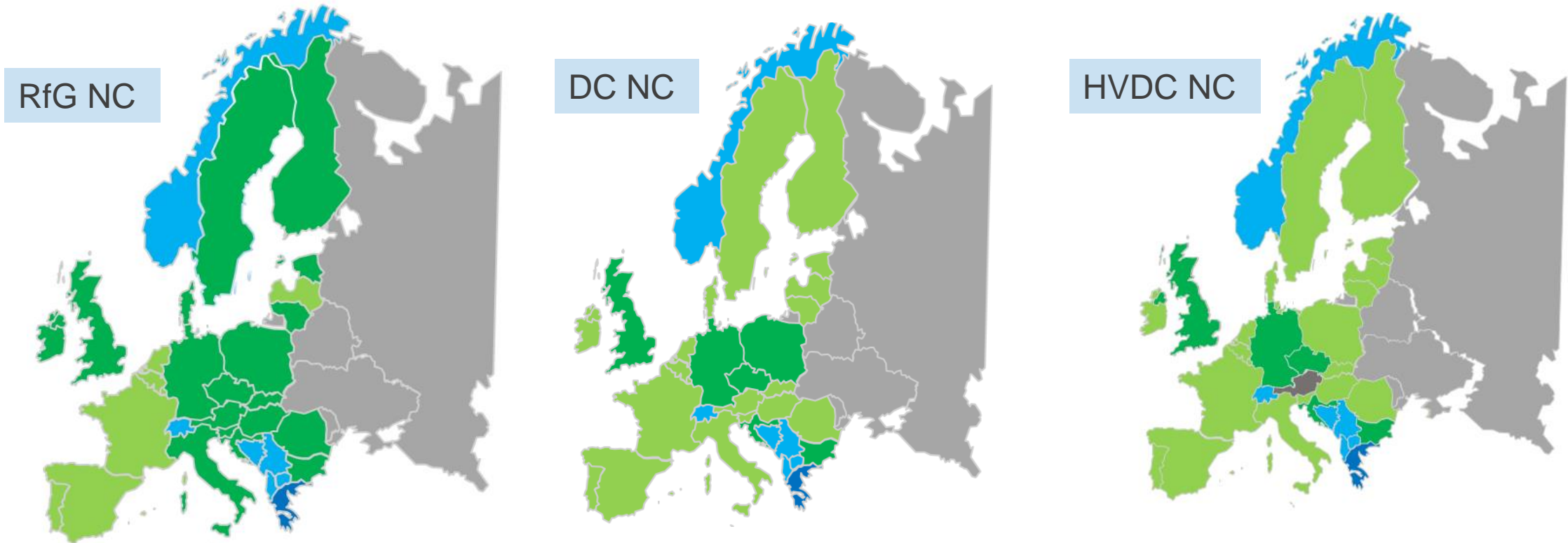
Final report >60 pages

Technical Group on compliance monitoring (TG CM)

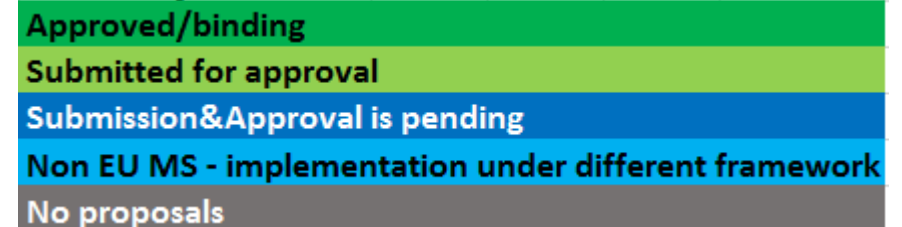
- Members of the Technical Group collaborate with the TC8X WG3 team for the development of 50549-10
- The IGD on Compliance Monitoring has been considered as one of the inputs for the development of -10
- CENELEC has an open invitation to present the progress of work in WG3
- It is intended to have a meeting as TG in Q3/Q4 2019 including the rest of the members / stakeholders that are not part of the WG3 and discuss on some key aspects of a developed draft
- The TG will then be considered closed – however the list of experts will be kept for any future engagement on a relevant topic
- The reporting to the GC ESC will follow the abovementioned plan

Monitoring of non-exhaustive requirements

CNC Implementation Monitoring



- The RfG list is advanced with all the non-exhaustive parameters under approval or approved
- Improved situation for DCC and moreover the HVDC, where most of the submitted proposals have been collected and final approval is pending



More details on the proposals of the TSOs [here](#)

Overview of planning

GC ESC EGs meetings

Expert Group on Pump Storage Hydro

- 15 October 2018, kick off meeting
- 13 November 2018, webinar
- 10 December 2018, webinar
- 18 January 2019, webinar
- 07 February 2019, webinar
- 15 March 2019, webinar
- 19 March 2019, meeting
- 25 April 2019, webinar

Expert Group on Identification of storage devices

- 15 October 2018, kick off meeting,
- 23 November 2018, webinar
- 20 December 2018, webinar
- 25 January 2019, webinar
- 21 February 2019, webinar
- 18 March 2019, meeting
- 18 April 2019, webinar

Joint EGs meeting

- 20 March 2019, meeting

Expert Group on Mixed Customer Sites

- 19 October 2018, kick off meeting
- 19 November 2018, webinar
- 17 December 2018, webinar
- 21 January 2019, webinar
- 21 February 2019, webinar
- 19 March 2019, meeting
- 09 April 2019, webinar