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Network Codes implications for DSOs
ESC GC 12 March 2024

Network Codes Implications (1)

- Grid Forming – resolving remaining uncertainties and thinking about how to create road-maps
- The possible lack of legal certainty regarding the application of the current Network Codes when they are repealed
- Detailed implications for EVs – how to ensure DSO specific requirements can easily be included, and how to streamline compliance assurance.

Network Codes Implications (2)

- Development/updating of compliance schemes to underpin the certification of EVs and heat pumps.
- Concerns in determining the generation units comprising a PGM.
- Separately, the DSO Entity has written to the European Commission with a small number of points for clarification in the drafting.

Grid Forming Capabilities (1)

Research

- Positive discussions held with ENTSO-E on sharing of their research on GFC to date.
- Acknowledging that such work will be driven from a TSO perspective, we expect learnings from it to be of value to DSOs.

Island Detection

- Intention to build MS level picture of what technologies/methods are currently used.
- This will help inform the direction of search for alternative solutions.

Grid Forming Capabilities (2)

Roadmaps

- DSOs and Member States will have differing starting points, with regard to such things as neutral treatments, protection practices, legislation etc.
- Roadmaps will necessarily have to be tailored to reflect this.
- DSO Entity hopes to provide general guidance on roadmaps.
- This will be based upon the issues identified in its position paper of early 2023.

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EU DSO Entity position paper

On un-intended islands in the context of ENTSO-E proposals on Rate of Change of Frequency [RoCoF] and Grid Forming Capability [GFC]

- February 2023 -

Table of Contents

Page | 1

DSO ENTITY
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EU DSO Entity suggestions for future work plan

Equipment Certificates

- Much good work has been done by the EG HCF in 2022 and 2023.
- The draft NC RfG and NC DC 2.0 both call for mandatory equipment certificates for EVs and heat pumps.
- Most of the building blocks are in place. However:
  - DSOs need to modify (or create) compliance schemes that include certification requirements.
  - There are no complete international standards for all aspects of both the RfG and individual DSOs' requirements.
  - Some critical aspects, such as the disposition of relevant parts between EVs and EVSEs and the communication between them need to be resolved for certification purposes.
- Given the need to ensure that all stakeholders are up to speed with these development as we move to the legal necessity of compliance, the DSO Entity believes that a new expert group to discuss the missing elements and to help guide the creation of the required compliance schemes would be beneficial to all stakeholders, but particularly to EV and EVSE manufacturers, to DSOs and to prospective certifiers.

Aggregation of non-synchronous generation

- Recital 11 of the draft NC RfG 2.0 suggests that it is no longer appropriate to aggregate non-synchronous generating units of differing technologies behind a single connection point into a power park module.
- If this is to be adopted in general, there seems to be the possibility of a lot of different interpretations of this. It would be therefore be helpful for there to be detailed guidance as to what constitutes separate technologies, and particularly where storage is concerned.
- This could be left to be resolved at a national level, but even so it would probably be helpful to have some guidance that seeks as much harmonization as possible. A published Expert Group report could provide valuable guidance and resolve disputes.
- There are a large number of potential combinations, and it would be beneficial to seek input from a number of stakeholders in determining guidance.