19th Grid Connection European Stakeholder Committee (GC ESC)

17 September 2020 from 09:30-12:30

GotoWebinar

Draft Minutes

Participants		
Alberto	BRIDI	CEDEC
Alexander	DUSOLT	ENTSO-E
Andreas	LUXA	T&D Europe
Andres	PINTO BELLO	SmartEN (Member of GC ESC)
Anneli	TEELAHKT	The European Association for Storage of Energy - EASE
Bernhard	Schowe-von der Brelie	EFAC
Dan-Eric	ARCHER	SolarPower Europe
Eric	DEKINDEREN	VGB Powertech
Florentien	BENEDICT	CEDEC
Francesco	CELOZZI	ENTSO-E
Freddy	ALCAZAR	EUGINE
Gonzalo	FERNANDEZ COSTA	European Commission
Gunnar	KAESTLE	COGEN
Ioannis	THEOLOGITIS	ENTSO-E
Jan	RASMUSSEN	EURELECTRIC
Klaus	OBERHAUSER	VGB Powertech
Knud	JOHANSEN	ENTSO-E
Luca	GUENZI	EUTurbines
Martin	HEIDL	SolarPower Europe (substitute)
Maxim	BUQUET	EUTurbines
Michael	VAN BOSSUYT	IFIEC
Michael	WILCH	EDSO for Smart grids

Mike	KAY	GEODE
Naomi	CHEVILLARD	SolarPower Europe
Pavla	ERHARTOVA	Europex
Srinivasa Radju	ADDALA	EUGINE (Member GC ESC)
Thorsten	BULO	SolarPower Europe
Ton	GERAERDS	VGB Powertech
Uros	GABRIJEL	ACER (Chair)
Vasiliki	KLONARI	WindEurope
Yannick	PHULPIN	EURElectric

1. Opening

1.1. Review of Agenda

The Chair welcomes the participants to the 19th GC SC session.

Erik Dekinderen (VGB) would like to raise a topic in AOB about the status of emerging technologies. In addition he asks if the item in topic 4 about voltage ranges will still be discussed given the absence of CENELEC members. The Chair adds the topic to AOB. Ioannis Theologitis (ENTSOE-E) clarifies that concerning the discussion on voltage ranges, given the absence of CENELEC participants, the topic will be covered by echoing the written communication sent by CENELEC to ENTSO-E prior to the meeting.

The Agenda is approved.

The Minutes from the 18th GC ESC meeting are also approved. Jan Rasmussen (EURELECTRIC) was missed by the participants list and will be added in the final version.

1.2. Follow-up actions from previous meeting/ new additions to Issue Logger (available here):

Ioannis Theologitis (ENTSO-E) presents the follow-up actions from the previous meeting.

No comments raised

2. ENTSOE CNC implementation update

Ioannis Theologitis (ENTSO-E) presents slides (available here)

Luca Guenzi (EUTurbine) appreciates the updates on Active Library and welcomes the announced webinar with the Technical Group Compliance and GC ESC to discuss the draft Implementation Guidance Document that was developed with the support of IECRE W10 representatives. However on the webinar format, he expresses the concern that it could not be the ideal way to work together (since the follow-up take the form of a Q&A but not more), and on the IGD webinar in particular comments that maybe the joint work could have started earlier. Ioannis Theologitis (ENTSO-E) answers that the format is not fixed, and it can be adapted based on the needs. He also clarified the difference between the Technical Group and the Expert Groups which is that the TG is created under the initiative of ENTOS-E while the EG fall under the governance of the ESC. It is not suggested then to have the known process in place of create a draft ToR, call for members and then kick off any activities. The list of experts from the Technical Group Compliance is available, ENTSO-E will also utilize the GC ESC expertise and we will host a webinar with a clear objective to discuss/comment on the draft IGD which will be circulated a few days prior the webinar. To run again the formal process of structuring a new ToR and membership for the TG is considered as a loss of time without adding real value. The invitation to the TG Compliance for the webinar on Implementation Guidance Documents will be sent soon to the members.

The Chair thanks the TSOs for the ongoing work and their additions to the Active Library.

3. IGD on Compliance testing and application of equipment certificates in the verification process

Knud Johansen (ENTSO-E) presents slides (available here) on ENTSO-E revision of IGD on Compliance Testing and Monitoring.

Jan Rasmussen (EURELECTRIC) asks a clarification on whether the planned IGD on compliance monitoring will include the periodical testing on the equipment. Knud Johansen (ENTSO-E) confirms it.

Erik Dekinderen (VGB) asks if the IGD on compliance testing will include tests on black start capabilities and house load operation. The black start and house load operation is optional capability. Knud Johansen (ENTSO-E) confirms that the intention is to include guidance on the compliance tests for all mandatory capability and for optional capability where possible during the lifetime of the equipment.

Erik Dekinderen (VGB) asks a question on the applicability to PGM type B and C of the Final Operational Notification (currently applicable only for type D). Knud Johansen (ENTSO-E) confirms that the intention is to describe how the FON can be extended also to PGM type B and C depending on the TSO national requirements and the legal basis of the possibility. This is related to the fact that based on national implementation of SOGL and RfG, some TSO extends already the concept of FON to other type of units. Erik asks if this intention is there also for the extension of the use of the concepts of Energisation Operational Notification and Interim Operational Notification to the other types of PGM. Knud confirms the need to verify the legal basis of this extension.

Freddy Alcazar (EUGINE) asks a question on slide 3 and on whether the definition of "families" will be included in the IGD since from what is written in the slide it seems to be missing. Knud Johansen (ENTSO-E) confirms that the intention is to include all the families of definitions and that the document applies to all type of units.

Michael Wilch (EDSO) comments on slide 1 and in particular the scope of the IGD. If the scope is to give guidance on the TSO perspective, since Type A and B are mostly connected to the distribution grids, the point of view of DSOs should be taken into consideration. Knud Johansen (ENTSO-E) accepts the comment and confirms that the DSOs perspective will be taken into consideration. Ioannis Theologitis (ENTSO-E) complements by saying that for this reason the invitation to contribute will also be sent beyond the TG Compliance (i.e. GC ESC).

Luca Guenzi (EUTurbines) asks if the outcomes of the EG ISSM will be considered in the foreseen IGD on electrical simulation models and how to coordinate the work between the EG and the team developing the IGD. Knud Johansen (ENTSO-E) confirms that the outcomes of the EG ISSM will be taken into consideration and that Mario Ndreko (who chairs the EG) is already aware of the intention of developing this IGD. He adds also that a lot of inputs are already available to be included as a basis for the document.

Luca Guenzi (EUTurbines) points out that IECRE is only dealing with renewables while IEC 62786 takes into consideration the requirements for connection too. Luca asks if the IGD will take into consideration the IEC 62786. He concludes by saying that the incoming standard IEC 50549-10, in case it will be taken into consideration, will also have a part dedicated to modelling. Knud Johansen (ENTSO-E) replies by saying that he is aware of the standard mentioned and that the team developing the IGD is using as basis the existing standards covering the subject of the document. Discussions have also taken place to define how to extend equipment certification to equipment other that just renewables. However, the focus on renewables (and the related involvement of IECRE) is part of the political target of ENTSO-E to facilitate the inclusion and the access of renewable energies in the electrical system. Luca will get in contact with Technical Committee 8 on the subject of certification (ACTION).

Florentien Benedict (CEDEC) remarks that contact should be made also with EG BfTA, since the EG is discussing about requirements applicable and certification. It should be ensured the coordination between the working groups in order to avoid double work. Ioannis Theologitis (ENTSO-E) confirms that coordination will be ensured and invite the EG to give feedback on the reported work in order to double check the coordination between the activities.

Srinivasa Radju Addala (EUGINE) remarks that it should be taken care of inviting individual TSOs to participate to the activities related to the Compliance Verification. Knud Johansen (ENTSO-E) agrees.

Michael Wilch (EDSO) asks ENTSO-E to give an overview on the various groups active on the topic of Compliance and on which aspects of this topics. He also asks guidance to the ESC on who is leading the topics in order to focus the effort of the experts. Knud Johansen (ENTSO-E) agrees to prepare a slide for the next meeting on this (ACTION) to give clarity on which group is active in the discussion on the single topics related to Compliance Verification. Ioannis Theologitis (ENTSO-E) recommends that on the topic of Compliance Verification, at ESC level, the resources should be concentrated on the TG Compliance, which will lead the review of the draft IGD before finalization by ENTSO-E and the subsequent public consultation. Michael suggest also the regulators to join the conversation in order to ensure the alignment of all the stakeholders.

Erik Dekinderen (VGB) asks a clarification on the short-term planning. Knud clarifies that the webinar will be organized in October and the IGD on Compliance Verification - testing and applying Equipment Certificates (EqC) is planned for release by the end of the year.

Mike Kay (GEODE) submits a comment via chat, saying that in case the three new IGDs will be released at a different time each, the original IGD should not be repealed till all the new ones are available for the use. Knud Johansen and Ioannis Theologitis (ENTSO-E) mention that conflicts will be avoided, and a strategy will be proposed on this subject. An option could be to delete the first IGD from public domain or mark it under revision.

4. CENELEC activities

Ioannis Theologitis (ENTSO-E) delivers an update on the CENELEC activities, the development of the standard EN 50549-10 and the temporary overvoltage topics based on the communication received by CENELEC. By the end of September a draft of the standard EN 50549-10 will be circulated for the Secretariat enquiry and the release is foreseen in 2021 after a formal vote will approve it. On the voltage ratings, it is acknowledged that there is no intention of amending the voltage ranges in the relevant standard. CENELEC will be again invited for the December meeting to discuss the topic with the ESC members.

Gunnar Kaestle (COGEN) comments the update by saying that the leadership in CENELEC has changed, this being an important fact that cause the low level of activity. However he confirms that the development of the CLC/TS 50549-10 remains a priority.

Luca Guenzi (EUTurbine) complements the status update saying that the chapters planned of the EN 50549-10 are complete and the editorial review will be finalized by September for the Secretariat enquiry. No additional chapter will be added. The draft will be shared also to the national technical committees for comments. Once the comments are processed the EN 50549-10 will be sent for voting and published. Luca asks Ioannis Theologitis (ENTSO-E) if it is possible to share the communication sent by CENELEC. Ioannis answers that he will ask CENELEC whether it is possible to disclose the email, even though there is not really more than what he has reported at the beginning of topic 4.

Vasiliki Klonari (WindEurope) has a question on temporary overvoltages on whether the topic is delayed for the December's meeting. Ioannis Theologitis (ENTSO-E) clarifies that from the IEC side, the discussion on voltage ranges is closed. They don't have the intention to update the standards. In particular concerning the voltages (over 420 kV and 245 kV); the reason for not modifying the ranges above 245 kV is that IEC thinks that there is still space to manage the issue through the amendment of RfG. ENTSO-E has been assessing this option. However, the main issue remains the topic of over 420 kV temporary operation, on which the discussion is still ongoing at least on ENTSO-E side. It is not possible for ENTSO-E to promise updates for the December meeting, since CENELEC should complement to that discussion. Ioannis confirms that he will contact IEC/CENELEC again to check the status.

Erik Dekinderen (VGB) asks which are the requirements in terms of voltage level of the installed equipment for someone who wants to connect a plant to the 400 kV grid. In particular Erik wonders if someone need to install equipment rated for 550 kV or can install equipment rated for 420 kV as the system operator does. Ralph Pfeiffer (ENTSO-E) confirms that the topic has been discussed before. The TSO does not define equipment specification but only capabilities. Ralph says that the choice on the voltage level of the equipment installed should be based on a risk assessment made by the owner of the plant, confirming his position as it was stated in June 2018. Erik states that the current lack of will by IEC and CENELEC to update the standards could cause problems in the future in term of installed equipment. Ralph remarks that his opinion is that there is not really a need for updating the standards, since the temporary overvoltage resistance capabilities are already covered in the standards in power. What is missing is a compliance procedure for testing the temporary overvoltage resistance capabilities. Erik highlights that currently no one is able to guarantee the behaviour of the installed equipment in face of temporary overvoltages. Ralph agrees with this statement, remarking that the lack of testing procedure produces lack of guarantees.

Erik Dekinderen (VGB) asks why, if the voltage level is the same for the PGM owner and the TSO, the issue of the temporary overvoltages seems not to be a problem for the TSO. Ralph Pfeiffer (ENTSO-E) confirms that this remains a problem also for the TSOs and the decision on the voltage rating of the installed equipment is taken at the company's own risk. Ralph adds that the Connection Network Codes does not include any equipment specifications.

Gunnar Kaestle (COGEN) remarks that neither IEC or CENELEC showed any interest in changing anything and that the standard is a global IEC one not a specific CENELEC one. From a process point of view, the need for a new standard or the amendment of an existing one should be expressed now if the results should come in 5 years and as far as he knows the formal start for the assessment of a new standard or the amendment of an existing has not been given. Ioannis Theologitis (ENTSO-E) answers that when ENTSO-E contacted the standardization bodies in order to assess the possibility of updating the standards, the idea has been turned down and this has been reflected also in the past minutes. Gunnar replies that he is aware of a letter to CENELEC to which the organization answered by saying that CENELEC has no power over IEC standards (being IEC and CENELEC two different organizations). To address IEC the preferred way should be to refer to the national committees and raise the issue there. Ioannis points out the ENTSO-E has currently valid memorandum of understanding with CENELEC and IEC, to define a higher level of discussion in virtue of the coordinating role of ENTSO-E. The formal exchange between ENTSO-E and CENELEC happened under the agreement included in that memorandum of understanding. CENELEC sent the letter to IEC and IEC answered back to CENELEC highlighting the lack of interest in updating the IEC standards and recognizing the issue as related to NC RfG only. Indeed, no other formal steps have taken, but the intention so far have been to raise the problem and agree on next steps in a coordinated manner. However, the problem is not properly acknowledged.

Klaus Oberhauser (VGB) points out that even if a plant is able to sustain a temporary overvoltage of 440 kV for 30 minutes, usually the protection setting of the TSO equipment will intervene first disconnecting the plant causing difficulties to fulfil the RfG requirements from an operational point of view.

Andreas Luxa (T&D Europe) states that according to his knowledge some TSOs in Europe who are purchasing 550 kV equipment to cope with the temporary overvoltages requirements of the RfG. The requirements of the CNC seem to be reasonable given the impact of the increasing renewables infeed in the system. However currently the issue remains for the installed equipment. In addition Andreas suggest the formation of a specific task force to tackle the compliance testing on temporary overvoltages.

Thorsten Bulo (SolarPower Europe) asks a clarification concerning the EN 50549-10 on when the draft will be circulated to the national committees or if there is a step in between. Gunnar Kaestle (COGEN) clarifies that it won't be possible to circulate a draft by September and this will happen later. Luca Guenzi clarifies that by September the presentation of the draft will be brought to the Internal Committee

5. *GC ESC Expert Groups ISSM, BfTA, CSM*

EG ISSM

Mario Ndreko (ENTSO-E) presents slides (available here) on the status of the activities of the EG Interaction Studies and simulation Models for PGM/HVDC

Vasiliki Klonari (WindEurope) asks if it is being evaluated a potential extension of the timeline due to the short amount of time to reach the results. Mario confirms that in case the results will not be judged as mature enough an extension could be requested.

Bernhard Schowe (EFAC) asks if it is being taken into account the modelization standards and the national schemes for modelization of the wind plants (i.e. German national schemes). Mario confirms that national practices on model validation are being taken into account. Mario adds also that input can be sent to the EG through the association.

Michael Wilch (EDSO) invites the EG to avoid conflicts with the current standard and practices.

Dan-Eric Archer (SolarPower Europe) asks if it has been considered if DSO should have modelling requirements to follow and that this would help the solar industry. Mario confirms that there is a will to bring model requirements from DSOs.

Luca Guenzi (EUTurbine) answers to Bernhard Schowe (EFAC) by saying that in case he wants to provide relevant information to the EG this would be welcomed.

Klaus Oberhauser (VGB) asks if the models considered are just for special interaction studies or are being evaluated also for compliance simulations. Mario answers that the focus of the group are the interaction studies.

EG CSM

Michael Wilch (EDSO) presents the slides (available here) on the status of the EG Criteria for Significant Modernisation

Vasiliki Klonari (WindEurope) asks if there is a template to gather the requested examples of criteria at member states level. Michael Wilch (EDSO) answers that the submission is free from a specific format.

EG BftA

Florentien Benedict (CEDEC) presents the slides (available here) on the status of the activities of the EG Baseline for Type A Power-Generating Modules

The vice Chairmanship proposal has been approved (Soren Stig Abildgaard).

Bernhard Schowe (EFAC) asks if the topic of voltage stability requirements for type A has been faced during the first discussions. Florentien Benedict (EFAC) confirms that the topic has not been covered but additions can be considered, and inputs can be considered.

6. *Grid Connection Codes National Implementation*

Luca Guenzi (EUTurbine) presents slides (available here)

Ioannis Theologitis (ENTSO-E) suggests specifying for each recommendation the steps to be taken in terms of content and outcome since the list of recommendations is a mix of technical, process and legal aspects beyond probably the expertise of the ESC. Luca Guenzi (EUTurbine) answers that the focus of these recommendations is to focus on the lessons learned from the past and to make the process itself more user-friendly for the manufacturers.

Michael Wilch (EDSO) remarks that the presentation touches some fundamentals agreements in the legal framework of the NC (i.e. language used) that he is not sure if can be solved in the framework of the ESC. Luca Guenzi (EUTurbine) agrees, however the investigation is about checking if something can be improved in the areas highlighted in the presentation.

The Chair agrees that the GC ESC, mainly comprised of technical experts, could not be the best place to discuss legal topics. Luca answers that for this reason two options are provided in the presentation. He is available to specify both options (ACTIONS). The Chair proposes to keep the topics on the table for the next GC ESC, keeping a holistic approach to the issues. Including more details to different topics would help determining the scope of work for the ESC.

7. *AOB*

Erik Dekinderen (VGB) asks a question concerning emerging technologies. In the EG BfTA someone mentioned the expression "micro CHPs". Some years ago this kind of equipment was classified as an emerging technology. He would like to know which the criteria are to define the emerging technologies. The Chair clarifies that this was a task for the regulatory authorities (national) and the volumes of the emerging technologies as submitted by regulators are collected on ACER website. At the time, only Stirling engines were classified as emerging technologies however newely emerging technologies are all subject to the Connection Network Codes.

Gunnar Kaestle (GEODE) confirms that the list is available, and it is short, including equipment and related manufacturers mounting micro engines. However these technological concepts are not used anymore, being substituted by technologies like fuel cells.

The Chair invites ENTSO-E to propose dates for the 2021 meetings (ACTION)

Jan Rasmussen (EURELECTRIC) announces that this was his last GC ESC meeting. The Chair thanks Jan for his contribution.

8. *Follow-up actions:*

1. ENTSO-E to propose dates for 2021 meetings
2. ENTSO-E to add Jan Rasmussen to the list of participants to the 18th GC ESC meeting.
3. ENTSO-E to send the invitation to the TG Compliance and GC ESC members for the webinar on Implementation Guidance Document on Compliance Verification
4. EUTurbines (Luca Guenzi) to contact IEC Technical Committee 8 to check the status of the discussion on Equipment Certification and facilitate the coordination of the development of the related Implementation Guidance Document.

5. ENTSO-E (Knud Johansen) to prepare one slide for the next meeting with an overview of the various groups active on the topic of Compliance Verification.
6. EUTurbine (Luca Guenzi) to specify the two options mentioned (set up of a ToR for an EG covering the subjects or develop and amendment proposal) and possibly address some of the topics in the next GC ESC meetings.