

11th System Operation European Stakeholder Committee (SO ESC), Joint SO-GC ESC, and 16th Grid Connection European Stakeholder Committee (GC ESC)

Thursday, 12 December 2019 from 9:00-15:00

ENTSO-E, Avenue de Cortenbergh 100, Brussels, Belgium

Draft Minutes

Participants			
Uros	GABRIJEL	ACER	Chair
Marie	WOITHE	ACER	GC & SO ESC
Maria	BARROSO GOMES	ACER	GC & SO ESC
Marco Savino	PASQUADIBISCEGLIE	ARERA	GC & SO ESC
Knud	JOHANSEN	ENTSO-E	SO & GC ESC
Ioannis	THEOLOGITIS	ENTSO-E	GC & SO ESC
Pilar	MUÑOZ-ELENA	ENTSO-E	SO & GC ESC
Ralph	PFEIFFER	ENTSO-E	GC & SO ESC
Rafal	KUCZYNSKI	ENTSO-E	SO ESC
Knut	EGGENBERGER	ENTSO-E (CGM Program)	SO ESC
Jean-Philippe	PAUL	ENTSO-E	SO ESC/connected online
Jean-Christophe	GAULT	Enedis/EDSO for Smart Grids	GC & SO ESC
Marc	MALBRANCKE	CEDEC	GC & SO ESC/connected online
Alberto	BRIDI	CEDEC	GC & SO ESC
Thorsten	BUELO	SMA	GC & SO ESC

Participants			
Adolpho	LOPEZ	EURELECTRIC	SO ESC/connected online
Florentien	BENEDICT	CEDEC	GC & SO ESC
Luca	GUENZI	EUTurbines	GC & SO ESC
Eric	DEKINDEREN	VGB	GC & SO ESC
Garth	GRAHAM	EURELECTRIC	GC & SO ESC/connected online
Pavla	ERHARTOVA	Europex	GC & SO ESC
Mike	KAY	GEODE	GC & SO ESC/via phone
Stein	OVSTEBO	IFIEC	GC & SO ESC
Bernhard	SCHOWE-VON DER BRELIE	EFAC	GC & SO ESC
Valerie	REIF	FSR	GC & SO ESC
Pierre	CASTAGNE	EURELECTRIC	SO ESC/via phone
Freddy	ALCAZAR	EUGINE	GC ESC
Francesco	CELOZZI	ENTSO-E	SO ESC GC ESC
Jakub	FIJALKOWSKI	European Commission	SO GC
Jörg	KAISER	VGB	SO & GC ESC
Naomi	CHEVILLARD	SolarPower Europe	SO & GC ESC
Eleni	DIAMANTOPOULOU	ClientEarth	SO & GC ESC
Anneli	TEELAHKT	The European Association for Storage of Energy - EASE	SO & GC ESC
Michael	WILCH	EDSO for Smart Grids	SO & GC ESC
Vasiliki	KLONARI	WindEurope	SO & GC ESC
Jean-Noel	MARQUET	EDF	SO & GC ESC
Reinhard	KEISINGER	E-Control	SO ESC

Participants			
Emilie	MILIN	ENTSO-E	GC ESC /connected online
Robert	WILSON	ENTSO-E	GC ESC /connected online

1. Opening

1.1. Review of the agenda

The Chair welcomes the participants. The Agenda is approved (available [here](#))

1.2. Review and approval of minutes from previous meeting

The minutes from the last meeting are approved (available [here](#)).

1.3. Review of actions

Jean Philippe Paul (ENTSO-E) informs on the status of the actions (topic 1.3 of the [slides](#)).

- 1) Final sets of answers to the questions presented by VGB has been provided. It is available on the Issue Logger area of the ESC webpage. The action is closed
- 2) Topic 3.2 will cover the item, with the presentation of ENTSO-E analysis the approaches taken regarding the implementation of the LFC block operational agreements and reserve sizing.
- 3) Active library updated for Emergency and Restoration Network Code with new inputs. Update ongoing for SOGL.. The action is in progress.
- 4) Relevant TCMs have been made available on the ENTSO-E website though the active library. The action is closed
- 5) Terms and Conditions uploaded to active library and stakeholder have been informed as per the agreed timeframe. The action is closed.
- 6) Workshop on CCR SOGL art 76 took place on the 2nd of October for ACER and NRAs. The tight timeframes have caused some difficulties in the organization of other workshops. The action is closed
- 7) Topic 4.2 will cover the item, with the presentation of ENTSO-E overview on how implementation took place for the Art. 4(2) articles of NC ER
- 8) Topic 3.1 will cover the item, with the presentation of the pending questions on DSA

Question on action 3: Garth Graham (EURELECTRIC) suggest topics for SOGL Active Library from the Stakeholders perspective: prequalification process for provision of reserves, information on how data exchange provisions are being implemented. Jean Philippe Paul (ENTSO-E) reminds that each TSO has to define the criteria for prequalification and takes note for future SO GL active library topic.

Question on action 6: Garth Graham (EURELECTRIC) asks if some slides are available from the workshops per CCR on SOGL art 76. ENTSO-E to make the slides available.

2. Update on implementation actions at pan EU level

Jean Philippe Paul (ENTSO-E) gives an update (topic 2.2 of the [slides](#)) on the deliverables in 2019

The Chair invites ENTSO-E to organize a public consultation on the scope of the CSA methodology update before September 2020. On LFCR transparency the Chair ask ENTSO-E to send ACER the list of TSO that didn't publish their LFC Block Operational Agreements on the Transparency platform. National Regulators will invite the TSOs to share the operational agreements.

Jakub Fijalkowski (European Commission) asks if it possible to deliver the numbers concerning aFRR and mFRR, in terms of MW. It would help to know which part of the mFRR sizing comes from probabilistic assessment and which from the dimensioning of the incident. In some countries these numbers are public (procurement of capacity). This data gathering would be aimed to the general assessment of the adequacy of the system.

Marco Pasquadibisceglie (ARERA) states the aFRR procurement depends on the situation of the load. The provision of a single number is not significant. A range could be provided, between the minimum and maximum. Numbers for every day cannot be provided, not even the formula based on which the reserve is procured (security reasons).

Garth Graham (EURELECTRIC) agrees that the national security is a very sensitive topic but supports the publication of the numbers for transparency.

Jakub Fijalkowski (European Commission) says that in case countries does not have fixed values of reserve capacity procured, then the transparency platform is a good tool to track changing numbers. An overview of all the countries would be useful to both the European Commission and the Regulators.

Jean Philippe Paul (ENTSO-E) remarks that questions on dimensioning will be addressed during the dedicated point of the agenda. The conditions based on which the reserves are dimensioned are different, depending on generation and load structure, existence of HVDC links etc. The transparency is important, but reserves are made available according to national law.

The chair encourages TSOs to publish available data on LFC block operational agreements which are not characterized by confidentiality clauses. The next step in transparency should involve the information of the sizing and sharing of the reserves.

Daniel Fraile (WindEurope) asks if CORE proposal has already been developed and consulted. Moreover, a question is asked about national implementation. The Chair answers that CORE proposal has already been developed and SHs have been consulted before the public consultation.

WindEurope asks if the stakeholders were consulted before the definition of the scope of the KORRR methodologies. It has been confirmed that the consultation of the stakeholder happened before the scope of the methodology

Note taken for informing the SO ESC on National Implementation of KORRR.

No more comments on the topic.

3. NC Emergency and Restoration

3.1. Dynamic Stability assessment/management - Response to open/pending questions from stakeholder workshops

Knud Johansen (ENTSO-E) presents the topic 3.1 of the [slides](#) and mentions that last minute updates have been provided in the slides. Slides will be uploaded.

Garth Graham (EURELECTRIC) observe that the system state should be shared with the stakeholders in order to avoid consequences of misinformation. An update on the website could help catching the real time state of the system. Knud agrees that information to the relevant actor is crucial. Transition from one state to another is also important and its notification could be helpful. Jean-Philippe (ENTSOE) reminds that information links and modalities are defined at national level, in accordance with local specificities, to reach those objectives.

Luca Guenzi (EUTurbine) asks if, in the replies, the actions are tracked and if the replies are expected to be read and commented by the stakeholders. Knud Johansen (ENTSO-E) proposes to check the discussion and the actions. Discussion on specific issues (like amendments) should be triggered by this topic.

No additional comments.

3.2. Reserve sizing - Approach to implementation of LFC Block Operational Agreement.

Tarek Fawzy (ENTSO-E) presents slides.

The Chair remarks that the stakeholders would appreciate the values to be included in a dedicated table and published the next year. It would also help to have information on exchange and share of the reserves. In case issues would be raised by the TSOs for the sharing of these data, ACER will facilitate the share by inviting the NRAs to request the information to the TSOs.

Jean Philippe Paul (ENTSO-E) clarifies that there are no a priori issue in providing the collected data and including them in a table.

Tarek Fawzy (ENTSO-E) remarks that the sharing of the reserve was not part of the analysis.

No further comments raised.

3.3. CBA LER - Update after workshop 15th November.

Luca Ortolano (ENTSO-E) updates the committee about the status.

No follow up questions

4. NC Emergency

4.1. Submit information about publication of Terms&Conditions regarding defence and restoration plans approved by NRAs

Rafal Kuczynski (ENTSO-E) presents slides.

4.2. Overview implementation of Art. 4(2)

Rafal Kuczynski (ENTSO-E) presents the outcomes on the activity of implementation monitoring and the related table of the results.

Garth Graham (EURELECTRIC) remarks that the documentation for UK has still to be approved by the NRA. It would be helpful to understand which TSO has given certain answer concerning the table showed (yes/no/not applicable). Rafal acknowledges the situation in UK.

Garth Graham (EURELECTRIC) notes that the list of SGUs provided changes based on the country. In some countries this list includes the names of the single sites while other countries have published a list of characteristics defining categories of SGUs. In the latter case it is difficult to understand if they are on the list or not. It would need to be notified by TSO the fact that an SGU has been included in the list. Rafal Kuczynski (ENTSO-E) answers that TSO normally inform the SGUs. For next SO ESC it can be provided information about the approval status for TCM (approved, submitted to the NRA but not yet approved or N/A).

Question for ENTSO-E on art 4(2). When does ENTSO-E think to publish the report on the investigation run on the article 4(2)? Rafal Kuczynski (ENTSO-E) answers that the table including the results of the investigation are the outcome of the implementation monitoring for article 4(2) a)-f). Art 4(2).g is going to be implemented later (test plan).

No further comments.

5. CGM program implementation update.

5.1. State of discussion on extension of the CGM process to the week ahead time frame

Derek Lawler (ENTSO-E) gives an update on the CGM program (slides available here)

EDSO for Smart Grids asks who the owner of the telecommunication network is and how available it will be. Derek Lawler (ENTSO-E) clarifies that it will be physical, and it will have a dedicated agreement for its usage. At the core of the network there will be service providers (hosting TSOs). Services to be paid by TSO communities.

EDSO for Smart Grids asks for availability figures. Derek Lawler (ENTSO-E) answers that the question will be addressed.

Jean-Noel Marquet mentioned that program is ambitious but then is it compatible with the rules of the market (i.e. balancing)? Derek Lawler (ENTSO-E) clarifies that the purpose of the presentation is to give an overview on the implementation of the program and its delivery. Any specific requests will be managed separately, and ENTSO-E is available to answer them.

Luca Guenzi (EUTurbines) asks information on the technical characteristics and requirements. Derek Lawler (ENTSO-E) clarifies that requirements are set by TSO and validated by them. Dedicated team are involved on specific topics (i.e. RSC CGM). Luca Guenzi (EUTurbines) asks whether these requirements can be shared with the stakeholder or if there are any confidentiality restrictions. Derek Lawler (ENTSO-E) answers that inside the SOC there are some dedicated technical groups working on the different requirements and the possibility of sharing the information needs to be checked, with respect to the confidentiality clauses, required eg for cybersecurity.

Reacting to the part of the presentation on the CGM Program which describes the IT developments that underlie both past and planned future release, a member of the audience asked whether any part of the requirements that are being implemented were publicly available. It was noted in response that as part of the news release on the first batch of CGM implementation tasks having been completed, ENTSO-E had published several documents that are effectively (business / IT) specification requirements in the autumn of 2016. The news release as well as the linked documents are still accessible via:

<https://docstore.entsoe.eu/news-events/announcements/announcements-archive/Pages/News/first-package-of-cgmm-implementation-tasks-completed.aspx>"

Marco Pasquadibisceglie (ARERA) remarks that CGM is critical for developing the tool included in the regulation. He acknowledges the delay but confirms that is not critical. He asks if the CGM could be in place starting from January 2020 to be used by RSC at least at D-1 and intraday calculation and service. Derek confirms that the CGM won't be online on January 2020. It is necessary that all the business requirements are in place for the CGM to be brought online.

Marco Pasquadibisceglie (ARERA) asks for the regulators to receive regular updates. Derek Lawler (ENTSO-E) confirms the availability to share available updates.

In response to a question from the Chair that aimed at establishing in which way the TSOs were going to ensure the implementation of Annex 1, Art. 3(2), of the Recast Electricity Regulation ("Transmission system operators shall appoint one regional coordination centre to build the Union-wide common grid models."), Knut Eggenberger pointed out the need for a backup model. A literal interpretation of the cited Article would appear to rule out the preparation of a backup model, so TSOs have developed an interpretation that would make it possible to prepare backup models while respecting the objective pursued with the cited Article. It was agreed that TSOs would explain their approach in more detail at the subsequent meeting of the SO ESC.

6. Stakeholder topics

No topics were raised by Stakeholders at the meeting

7. Any Other Business

One request from the GC ESC Expert Group on Pump Storage Hydro (Ralph Pfeiffer (ENTSO-E)): At low frequency, pump-storage hydro units in pump mode shall disconnect or revert the operation to production. The Expert Group has observed, that it is triggered at different frequencies across Europe, and asks about the rationale behind these divergences.

Garth Graham (EURELECTRIC) asks for art 15 par 3 of ERNC clarification for energy storage (so general storage). The TSO should define the threshold of frequency in the light of that article.

8. Follow up actions

1. Note for future SO GL active library to include pre-qualification process aFRR, mFRR, RR.
 2. Inform the SO ESC on national implementation of KORRR.
 3. ENTSO-E to upload updated slides for DSA.
 4. ENTSO-E to share and agree the format of reporting on the implementation of art 4(2) of Emergency and Restoration Network Code.
 5. ENTSO-E to share the slides on the workshop made with ACER and NRAs on CCRs (02/10/2019)
 6. ENTSO-E to send the excel file including the data based on which the survey on reserve sizing has been done.
 7. ENTSO-E to provide information concerning the exchange/sharing of the reserve.
 8. ENTSO-E to send ACER the list of the TSOs which have not uploaded the LFC BOA to the Transparency Platform.
 9. ENTSO-E to provide an update about TCM status according to NCER Article 5.
 10. Pending questions concerning CGM related topics to be sent to ENTSO-E.
 11. AOB: Question from the GC ESC Expert Group on Pump Storage Hydro: Provide arguments why low frequency pump disconnection is triggered at different frequencies across Europe?
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1. **Opening**

1.1. **Review of Agenda**

The Chair welcomes the participants. The agenda of the meeting with an addition to the AOB regarding the recent publication of the ACER Implementation Monitoring report.

1.2. **Review and approval of minutes from previous meeting**

The minutes of the 15th GC ESC are approved (available [here](#)).

1.3. **Follow-up actions from previous meeting/ new additions to Issue Logger (available [here](#)):**

Ioannis Theologitis (ENTSO-E) reports on the follow-up actions from previous meetings that are found in the [Action Tracker](#).

Florentine Benedict asks if the results of EUTurbine work on the Active Library (AL) have been uploaded on AL or implemented. Ioannis Theologitis (ENTSO-E) states that those results won't be uploaded to the AL. They have been noted and will be considered for implementation in the coming period. The detailed results were received only recently and there was no appropriate time for evaluation. Luca Guenzi (EUTurbine) added that the results are included in a working sheet, introduced by a PDF. The working sheet is not for publication. The PDF cover could be published. Ioannis confirms that the documents could be included in the list of today's meeting documents. Luca Guenzi (EUTurbine) informs that a second round of analyses is being done.

Michael Wilch (EDSO for Smart Grids) states that concerning the standardization for Germany the documents are available only under payment. Luca Guenzi (EUTurbine) adds that documents related to regulation should not be bound to payment. The Chair states that this is not regulated by RfG and it could be a topic of amendment.

Garth Graham (EURELECTRIC) says that the topic of cost recovery should be assessed for those TSO and DSO who face costs to develop those documents.

No additional comments raised on the Action log.

2. **Connection Network Codes implementation**

Ioannis Theologitis (ENTSO-E) presents the current status of the group and the related activities (slides available [here](#))

2.1. **Update from Technical Group High Penetration**

Ioannis Theologitis (ENTSO-E) presents slides (available [here](#))

The Technical Group High Penetration Report will be presented during a dedicated workshop on the 30 of January, open to all the stakeholders.

2.2. **CNC implementation monitoring**

Ioannis Theologitis (ENTSO-E) presents slides (available [here](#)) on the CNC monitoring report and the active library.

Garth Graham (EURELECTRIC) observes that there are some inconsistencies between different versions of the monitoring excel file and the implementation maps (i.e. Bulgaria in the August slides and the November slides). Some are also obvious when comparing inputs with the ACER's CNC Monitoring report. The Chair answers that in case of missing answers by a country some legitimate assumptions concerning the national levels of implementation have been made. Ioannis Theologitis (ENTSO-E) adds that these cases are just few and invites Garth Graham (EURELECTRIC) to provide the complete outcome of his analysis to help us improve with targeted actions. It has been the case that corrections have been made in values and status of implementation in the course of the implementation process. Due to the fact that still some national implementation processes are not finalized, the time of receiving the information is important and a possible reason for inconsistencies among the different reporting documents. All ENTSO-E documents incl. the AL will be aligned after the publication of the first edition of the ENTSO-E's Implementation monitoring report which will be available shortly.

The EC states that on CNC implementation a stronger position should be taken on countries communicating their implementation data.

Luca Guenzi (EUTurbine) says that notes and outcomes of the investigation presented during the meeting in September include also results from the national contacts of the TSOs and national websites. All outcomes could be used to find any mismatches in AL and the monitoring reports.

Garth Graham (EURELECTRIC) asks if the updates triggered by the monitoring activities involve the national or European regulation. Ioannis Theologitis (ENTSO-E) confirms that the monitoring activity should be used in the framework of the EU regulation, not the national ones.

2.3. Grid Connection Expert groups phase 2

Ioannis Theologitis (ENTSO-E) presents slides (available [here](#), slide 17)

EC states that 2020 should be dedicated to preparation of amendments and that the work of the Expert Groups should focus on that. It is not expected to launch a formal amendment procedure in 2020.

Garth Graham (EURELECTRIC) suggests to agree on the Terms of References (Annexes) of the new Expert Groups in March 2020 in order to be able to work on the amendments proposals and give material to the EC already for 2021 on time, when the time window for amending the network codes will probably be opened. The Annexes should be signed off in March and the expert groups should be operational for the meeting in June.

Erik Dekinderen (VGB) asks who will define when the new Expert Groups will start. Ioannis Theologitis (ENTSO-E) confirm that the start of the activities of the new expert group should be decided by the Europeans Stakeholder Committee itself and according to the GC ESC EGs ToR

Ralph Pfeiffer (ENTSO-E) states that at the moment no priority has been indicated concerning which one of the new EGs shall begin first. Garth Graham (EURELECTRIC) agrees and insists on the fact that the Annexes should be ready for the meeting in March. Ralph Pfeiffer (ENTSO-E) agrees on the urgency of getting the Expert Groups ready for the possible 2021 amendments of the Connection Network Codes.

The Chair agrees and adds that also a lot of small things are still on the table. It could be possible to set up an EG to deals with those – i.e. an EG that can cluster small technical topics for amendments consideration.

Ralph Pfeiffer says that in order to finalize the Annexes for March it should be agreed who will be in charge to lead each group. Once decided, that entity shall be in charge to draft those.

Ioannis Theologitis (ENTSO-E) reminds the members that there was an offer from the DSOs to Chair/Vice-Chair two of the selected new Expert Groups.

Garth Graham (EURELECTRIC) proposes the following based on the topic priority list:

- Criteria for modernization led by DSOs
- SPGM/PPM/HVDC interaction studies led by ENTSO-E
- Baseline for type A generating modules led by DSOs

To facilitate the drafting of the new Annexes, the ones from the existing Expert Groups can be used and then only the scope and some timings of the EG will need to be modified.

Florentine Benedict (CEDEC) and Michael Wilch (EDSO for Smart Grids) volunteer to chair those groups.

Ioannis Theologitis (ENTSO-E) will circulate the word versions of the existing annexes to prepare the new ones.

3. EU turbines: Implementation process and recommendations.

Luca Guenzi (EUTurbine) presents slides (available [here](#))

Ioannis Theologitis (ENTSO-E) asks if there is a need to update some technical standards first, before considering updating the regulations. Some standards are 10-20 years old and may be technically outdated. Luca Guenzi (EUTurbine) advises that it can be done both ways

- 1) First update the regulation and then the standards
- 2) First update the standards and then the regulation

An update of technical standards can typically be initiated every 3 years. There are two kind of standards, technical standards and product standards.

Ralph Pfeiffer (ENTSO-E) states that Network Codes have higher legal value than technical standards. Moreover, the system needs shall trigger Network Code amendments and products shall follow these needs. System needs and product capabilities need to be reconciled.

Luca Guenzi (EUTurbine) says that technical standards go deeper than the regulation concerning technical topics and the technical needs of the industry are born from the costs faced by the producers. Decreasing cost goes toward the welfare of all Europeans.

The Chair refers that there was no time from the technical bodies to implement modification by the time the regulation came into force.

Continuing the presentation, Luca Guenzi (EUTurbine) highlights that the national implementation of exhaustive requirements are sometimes a problem because of deviations from values regardless the exhaustive definition at European level (i.e. example Ireland 52 Hz for 60 mins). These deviations cannot be considered as a derogation.

Ralph Pfeiffer (ENTSO-E) corrects the references made to Ireland and Norway (included in the slides).

The European Commission mentions that the matter will be investigated and checked also in accordance with the trading and settlement codes. Any uncertainty to market participants shall be avoided.

The Chair highlights that derogations can be granted to release one or several power generation modules from requirements included in the regulation in exceptional cases, but not the other way around (imposing additional or more stringent requirements on power generation modules). In 2020 implementation monitoring, ACER intends focusing on divergences between the network codes and the national specifications for non-exhaustive requirements.

ENTSO-E will refresh the contact list of national experts on the website (AL) at least once a year.

Garth Graham (EURELECTRIC) said that there should be a way to push TSOs and DSOs to give the requested information (ranking of collaborating TSOs/DSOs).

Luca Guenzi (EUTurbine) highlights the fact that some certificates are not always accepted across Europe. Manufacturers want to sell everywhere without replicating costs for certification.

The European Commission agrees that the learning-by-doing approach should be followed. If EUTurbine has additional reports or information is invited to share them also with EC.

The Chair invites EUTurbine to publish any of their analysis.

Garth Graham (EURELECTRIC) suggests an item on the March agenda, with the analysis of the outcome of that report. A comparison between the ENTSOE monitoring report and the analysis by EUTurbine could be a good thing to highlight any mismatch.

Ioannis Theologitis (ENTSO-E) highlights that the scope of the monitoring report is not to bring to light such mismatches in the national implementation. The monitoring requirements are quite specific in the CNCs.

Michael Wilch (EDSO for Smart Grids) says that concerning the non-harmonization of the languages used for the national implementation documents, online translation tools can help finding the needed information.

The European Commission highlights that no legal obligation is in place that obliges the publication in English language. Luca Guenzi (EUTurbine) agrees and underlines that the language point in the EUTurbines observations is only a recommendation.

4. Compliance monitoring in the EU: definition of “family” for the validity of certificates and/or tests and the acceptance of validated simulation models previously certified by other member states.

Freddy Alcazar (EUGINE) presents slides (available [here](#))

Knud Johansen (ENTSO-E) highlights that ENTSO-E is involved in discussions on certification scheme in collaboration with IECRE and there is space for improvement for the respective IGDs. EUGINE's outcomes shall be taken into consideration during the update of the IGDs.

Michael Wilch (EDSO for Smart Grids) thinks that the standardization of small units is mainly a DSO business since these units are mostly connected to the distribution network.

Garth Graham (EURELECTRIC) says that an improvement in compliance and certification should surely bring advantages in terms of costs in all member states. Having a single set of testing and being able to use the units in the entire union would decrease the related costs.

Michael Wilch (EDSO for Smart Grids) states that priority should be given to the harmonization of non-exhaustive requirements.

Mike Kay (GEODE) says that he is pessimistic about the possibility of reaching a more uniform set of non-exhaustive requirements.

Bernhard Schowe-von der Brelie (EFAC) welcomes the proposal on family definitions for PGUs which are basically in line with the certification practices. He indicates, that such definitions and criteria are typically specified in certification programs. From the experience with CHP certification in Germany however, he points out, that a simulation model on terminal currents and voltages alone is not sufficient in order to demonstrate the stability of non-tested family members in terms of voltage events. Therefore he strongly recommends to also introduce and validate a model on the rotor angle (via rotational speed measurements). Given this validated model, the stability of non-tested generators can be simulated with sufficient reliability.

5. Presentation about the European CENELEC standard on compliance.

David Quere (CENELEC) presents slides (available [here](#))

Freddie Alcazar (EUGINE) asks if it is possible for members of the ESC to participate to CENELEC meetings.

Ralph Pfeiffer (ENTSO-E) asks about the 9-month delay on the development of the part 10 and the current timeline. David Quere (CENELEC) says that the development is expected by end of 2020, but it needs to be confirmed.

6. GC ESC Expert Groups

6.1. Approval of revised annexes

The following annexes are approved

- Annex to EG Storage (available [here](#))
- Annex to EG Mixed Customer Sites (available [here](#))
- Annex to EG Pump Storage Hydro (available [here](#))

6.2. Reports from the Expert Groups

Ralph Pfeiffer (ENTSO-E) present the phase 2 report of EG Pump storage Hydro (available [here](#))

Robert Wilson (ENTSO-E) presents the phase 2 report of EG Mixed Customer Sites (available [here](#))

Emilie Milin (ENTSO-E) presents the phase 2 report of the EG Storage (available [here](#))

Michael Wilch (EDSO for Smart Grids) has general comment on the fact that the work carried out by EG MCS and EG Storage involves directly DSOs and only indirectly TSOs, but the DSOs have not been involved. The Chair remarks that nomination for co-chairing the Expert Groups were open but no one from the DSOs answered to the nomination.

Ioannis Theologitis (ENTSO-E) adds that DSOs are currently represented in the EGs and the hope is that the work is being communicated effectively to many expert DSOs through the representative associations.

Michael Wilch (EDSO for Smart Grids) continues with an example: the DSOs should be more involved in the discussions about the electrical vehicles in relation to energy storage. The Chair agrees to inform the National Regulatory Authorities in order to inform the DSOs at national level.

7. **AOB**

7.1. **ACER implementation monitoring report - second edition for RfG**

Florentine Benedict (CEDEC) says that in chapter 5 page 19 is included an error concerning the existence of a certifier and the fact that the National Regulatory Authorities are responsible for its existence. The Chair confirms that is a mistake that has been spotted and a corrigendum will be issued to clarify that: National Regulatory Authorities are **not** responsible to ensure the existence of an Authorised Certifier.

8. **Dates for 2020 meetings**

Dates are approved

SO ESC	GC ESC
18 March, Brussels	19 March, Brussels
03 June, Ljubljana	04 June, Ljubljana
16 September, Ljubljana	17 September, Ljubljana
09 December, Brussels	10 December, Brussels

9. **Follow up actions**

1. ENTSO-E to upload EUTurbines its Active Library analysis on the list of documents of December's 2019 meeting.
2. ENTSO-E to circulate the word file of the current Annexes to the appointed DSOs/Chairs for the preparation of the new Expert Groups.
3. All Chairs of the new EGs to come should prepare a draft Annex to be circulated to ESC for comments ahead of the meeting with a view to a final draft for approval in March 2020 meeting.
4. ENTSO-E to refresh the contact list in the Active library at least once a year.
5. ENTSO-E to update the committee about the IEC RE discussions during the next meeting in March.
6. ACER to urge NRAs to inform their DSOs about the discussions that are taking place at EG level.