Revised workplan of the existing GC ESC Expert Groups

Expert Group Chairs

15th Grid Connection European Stakeholder Committee Meeting

11 September 2019, Ljubljana

EG PSH – proposed objectives for phase two

- In phase one, EG PSH has assessed the applicability and technical feasibility of the RfG requirement for PSH power generating modules.
- As a result, EG PSH concludes, that the RfG requirements cannot be applied in their generality, but a distinction needs to be made between typical PSH technologies and operation modes.
- EG PSH shares a common view on the possibilities and limitations of PSH power generating modules, which is described in the report on phase one.
- In phase two, EG PSH should be tasked to draft precise text proposal for amending the RfG requirements to adequately take into consideration the PSH specificities together with underlying technical justifications as per the phase one report. This however shall not be understood as formally appealing for an RfG amendment,
- The outcomes of phase two shall be documented in a report.
- This phase two work shall be based on the assumptions, that requirements for PSH power generating modules shall be covered by RfG for all three operation modes (turbine, pumping, synchronous compensation), i.e. either nor dedicated network code for storage will be developed, or PSH power generating modules would be excluded from such a code.

EG PSH – proposed timeline

- After confirmation of EG PSH memberships (confirmation or withdrawal of phase one members, possible new members) a kick-off meeting shall be scheduled for late October/early November. A physical meeting would be preferable to start phase two, but a webinar may be considered as an alternative depending on availabilities.

- Further meetings shall be schedules as monthly webinars in December 2019, January 2020 and February 2020.

- The report with the phase two outcomes shall be presented to the GC ESC in its Q1/2020 meeting (i.e. March 2020) for approval.

- It is proposed to continue with the present chairmanship
  - chair: Ralph Pfeiffer, Amprion on behalf of ENTSO-E
  - vice-chair: Klaus Oberhauser, Verbund on behalf of VGB

EG PSH (phase 2 membership)

	Name	Organisation	Representation at GC ESC
1	Hans Abele	Transnetbw	ENTSO-E
2	Ralph Pfeiffer	Amprion	ENTSO-E
3	Ioannis Theologitis	ENTSO-E	ENTSO-E
4	Francesco Celozzi	ENTSO-E	ENTSO-E
5	Klaus Oberhauser	Verbund	VGB
6	Heinz Berger	Axpo	VGB
7	Tassi Giannikopoulos	EnBW	VGB
8	Eric Dekinderen	VGB	VGB
9	Klaus Krueger	VOITH	EASE
10	Anneli Teelahk	EASE	EASE
11	Brittney Elzarei	EASE	EASE
12	Michael Iovu	BDEW	EURELECTRIC
13	Fernando Perán Montero	Iberdrola	EURELECTRIC
14	Vincenzo Trovato	ACER	ACER
15	Alexander Schwery	GE Renewable Energy	

EG STORAGE – proposed objectives for phase two

- In phase one, EG STORAGE identify the need for technical requirements for connection of storage devices and evaluate how these requirements would best comply with the existing CNCs.

- The group identity the different storage technologies, which were then categorized by the type of connection to the grid :
  - synchronous storage technologies (connected to the grid directly through a synchronous machine)
  - non-synchronous storage technologies (connected to the grid either (partly) via a power electronics converter or via an asynchronous machine).

- The group identify that a storage device acts at its connection point either as generation or demand, and the applied technical requirements should be equitable and consistent with all CNCs: RfG requirements, a few requirements such as low frequency demand disconnection during charging mode of operation (DC NC), and active power control such as ramping and switching (HVDC NC), are relevant for storage devices.

- In phase two, EG STORAGE should be tasked to continue their work:
  a) To study the first policy option: possibility of amending RfG NC to adequately take into consideration the storage specificities
     a) by drafting precise text proposal.
  b) To assess the impact of this policy option on the others NC.

- The outcomes of phase two shall be documented in a report.

EG STORAGE – proposed timeline

- After confirmation of EG Storage membership (confirmation or withdrawal of phase one members, possible new members) a kick-off meeting shall be scheduled for late October/early November. A physical meeting would be preferable to start phase two, but a webinar may be considered as an alternative depending on availabilities.

- Further meetings shall be scheduled as monthly webinars in December 2019, January 2020 and February 2020.

- The report including phase two outcomes shall be presented to the GC ESC in its Q1/2020 meeting (i.e. March 2020) for approval.

- It is proposed to continue with the present chairmanship
  - chair: Emilie Milin, RTE on behalf of ENTSO-E
  - vice-chair: Christian Noce, on behalf of EASE

EG STORAGE (phase 2 membership)

	Name	Organisation	Representation at GC ESC
1	Emilie Milin	RTE	ENTSO-E
2	Antony Johnson	National Grid	ENTSO-E
3	Ioannis Theologitis	ENTSO-E	ENTSO-E
4	Francesco Celozzi	ENTSO-E	ENTSO-E
5	Jean-Noël Marquet	EDF	VGB
6	Tassi Giannikopoulos	EnBW	VGB
7	Eric Dekinderen	VGB	VGB
8	Noce Christian	Enel	EASE
9	Kevin Bradley	BSEF	EASE
10	Raquel Garde	CENER	EASE
11	Brittney Elzarei	EASE	EASE
12	Anneli Teelahk	EASE	EASE
13	Michael Van Bossuyt	IFIEC	IFIEC
14	Florentien Benedict	STEDIN	CEDEC
15	Marc Malbrancke	CEDEC	CEDEC
16	Bernhard Schowe	FGH	EFAC
17	Garth Graham	SEE	EURELECTRIC
18	Mike Kay	ENA	GEODE
19	Karol O'Kane	ESB	EURELECTRIC
20	Pat Dowling	ESB	EURELECTRIC
21	Michael Iovu	BDEW	EURELECTRIC
22	Guillaume Pelton	ENEDIS	EDSO for Smart Grids
23	Michael Wilch	Innogy	EDSO for Smart Grids
24	Santiago Gallego	Iberdrola	EDSO for Smart Grids
25	Andrés Pinto-Bello Gomez	smartEnA	smartEn
26	Xavier Moreau	Nuvve	smartEn
27	Romain Benquey	REstore	smartEn
28	Marcus Müller	Tesla	SolarPower Europe
29	Raffaele Rossi	SolarPower Europe	SolarPower Europe
30	Vasiliki Klonari	WindEurope	WindEurope
31	Vincenzo Trovato	ACER	ACER

EG MCS – proposed objectives for phase two

- In phase one, EG MCS assessed issues to do with the application of the connection network codes to mixed customer sites, including an analysis of what a mixed site could constitute.

- The group assessed a number of alternatives to achieve a better application of the codes to such sites and concluded that one of three alternatives in the assessment for the Requirements for Generators network code of a generator type offered a better solution:
  - The removal of the voltage criteria from the assessment
  - The partial removal of the voltage criteria, just for type A&B generators
  - The addition of the concept of an ‘interface point’ for the assessment

- The group were unable to reach a conclusion on a single favoured alternative to be taken forwards, identifying that this needed further work to determine an appropriate position respecting both the need for clarity and fair treatment of such sites, and the need to avoid eroding network support

- In phase two, EG MCS should be tasked to continue their work to provide:
  a) a more detailed assessment of the policy options (including economic metrics)
  b) a proposed wording for network codes
  c) the agreement and determination of a single policy option

- The outcomes of phase two shall be documented in a report.

EG MCS – proposed timeline

- After confirmation of EG MCS membership (confirmation or withdrawal of phase one members, possible new members) a kick-off meeting shall be scheduled for late October/early November. A physical meeting would be preferable to start phase two, but a webinar may be considered as an alternative depending on availabilities.

- Further meetings shall be scheduled as monthly webinars in December 2019, January 2020 and February 2020.

- The report with the phase two outcomes shall be presented to the GC ESC in its Q1/2020 meeting (i.e. March 2020) for approval.

- It is proposed to continue with the present chairmanship
  - chair: Rob Wilson, National Grid ESO on behalf of ENTSO-E
  - vice-chair: Paul de Wit, Alliander on behalf of DSOs

EG MCS (phase 2 membership)

	Name	Organisation	Representation at GC ESC
1	Robert Wilson	National Grid	ENTSO-E
2	Ioannis Theologitis	ENTSO-E	ENTSO-E
3	Francesco Celozzi	ENTSO-E	ENTSO-E
4	Eric Dekinderen	VGB	VGB
5	Jean-Noël Marquet	EDF	VGB
6	Brittney Elzarei	EASE	EASE
7	Anneli Teelahk	EASE	EASE
8	Michael Van Bossuyt	IFIEC	IFIEC
9	Alberto Bridi	EDYNA	CEDEC
10	Paul de Wit	Alliander	CEDEC
11	Marc Malbrancke	CEDEC	CEDEC
12	Frederik Kalverkamp	FGH	EFAC
13	Garth Graham	SEE	EURELECTRIC
14	Mike Kay	ENA	GEODE
15	Karol O'Kane	ESB	EURELECTRIC
16	Pat Dowling	ESB	EURELECTRIC
17	Benjamin Düvel	BDEW	EURELECTRIC
18	Michael Wilch	Innogy	EDSO for Smart Grids
19	Andrés Pinto-Bello Gomez	smartEn	smartEn
20	Marcus Müller	Tesla	SolarPower Europe
21	Katrin Schweren	Tiko	smartEn
22	Raffaele Rossi	SolarPower Europe	SolarPower Europe
23	Vincenzo Trovato	ACER	ACER