

Update on Expert Groups & Workshops

ENTSO-E

7th Grid Connection European Stakeholder
Committee Meeting

Expert Groups

- High Penetration
 - Cost Benefit Analysis
 - Compliance Monitoring
-

EG on high penetration

- Total 12 members
- Stakeholder groups represented in EG:
Wind manufacturing industry (4), HVDC manufacturing industry (2), PV inverter manufacturing industry (1), power system analysis tool providers (1), academia (2), system operators (2)
- Phase 1 from December 2016 until end of January 2017 (finished):
Substantially reviewed existing IGD on “Fast Fault Current Contribution”
Created first version of IGD on “High penetration of Power Electronics interfaced Power Sources” (HPoPEiPS)
- Phase 2 from March 2017:
Further improve “holistic approach” of IGD on High penetration of Power Electronics interfaced Power Sources”
Deriving “grid forming” performance criteria for benchmarking and testing
Achievable performance for individual features for either no, low or substantial additional cost
Release updated version of IGD on HPoPEiPS end of 2017

EG on high penetration (continued)

- Continuous webinars (on usually three-weekly basis), good participation of members

Next webinar 11th September

- Dedicated session during Wind Integration Workshop (Berlin) in November
Presentations from wind and PV manufacturers, power system analysis tool providers and system operators
40min slot for subsequent discussion reserved

EG on Cost Benefit Analysis

- Total 18 members
- Stakeholder groups represented in EG:
manufacturers and generation (8), regulators (1), system operators (4), industrial consumers (1), storage (1), network operators (3)
- Kick-off: 18/05/2017
- Timing: 6 months
- Target: To further develop the IGD on cost benefit analysis to meet reasonable stakeholder expectations

Schedule:

Date	Time (always CET)	Format/Location	Purpose
11 Sept <i>(to be rescheduled)</i>	10-12	Webex	Present and discuss 1 st draft of sections
2 Oct	10-17	Brussels	Discuss and finalise drafting
31 Oct	10-12	Webex	Present final version to group for comment
21 Nov	10-12	Webex	Finalise IGD, confirm TORs fulfilled

EG on Cost Benefit Analysis (continued)

Structure

Scope – essentially this will be drawing out where in the Network Codes a CBA is required and making distinctions between the different cases (derogations and retrospective CBAs). This is similar to the 1st ENTSO-E draft.

Methodology – this will set out the basics of the process and will reference the scope.

Specific cases – covering in more detail the different applications of a CBA.

Examples – referencing the material submitted.

EG on compliance monitoring

- Status:
 - 2 physical meetings (29/11/2016 and 27/01/2017) for IGD drafting:
https://www.entsoe.eu/Documents/Network%20codes%20documents/NC%20RfG/170508_IGD_Guidance_on_Compliance_for_publication.zip
 - Reorganising for a re-kick off (end of September)
 - Additional members from ENTSOE WG CNC volunteered to participate
- Total \approx 25 experts from 22 companies (received 2 more nominations during inactive period)
- Stakeholder groups represented in EG: Turbine manufacturing industry, wind manufacturing industry, co-generation industry, engineering and certification bodies, utility companies, energy suppliers, DSO association, consultant companies, standardization entities,...

EG on compliance monitoring (continued)

- Next steps:
 - Explore (Survey?) at CNC level how technical requirements will be checked by each TSO/DSO/country once CNC apply
 - Invitation to CENELEC to discuss options for coordination/collaboration on compliance monitoring
 - Assessment on the need for harmonization on compliance testing and simulation
 - Periodical meetings/webinars

Public Workshops

- 2nd Public Workshop on Freq. Stability Parameters – 20th July
 - **NEW** - 3rd Public Workshop on Freq. Stability Parameters – 4th Oct
-

2nd Public Workshop on Freq. Stab. Parameters - Summary and conclusions

- July 20th at ENTSO-E premises in Brussels
- 30+ participants
- The workshop was focused on discussing the ENTSO-E suggestions on a first set of frequency related parameters + the stakeholders' feedback to a relevant survey that was launched by ENTSO-E:
 - Frequency sensitive mode (FSM)
 - Limited Frequency Sensitive Mode Overfrequency (LFSM-O)
 - Limited Frequency Sensitive Mode – Underfrequency (LFSM-U)
 - Frequency ranges
 - Rate of Change of Frequency (RoCoF) Withstand Capability
 - Synthetic Inertia (SI)
 - Demand Response very fast Active Power Control (DR APC)
- The workshop also asked for a preliminary feedback on the remaining parameters: Demand Response System Frequency Control (DR SFC), Frequency ranges of automatic connection and gradient of active power increase, Auto reconnection after an incidental disconnection, Admissible active power reduction at low frequencies.

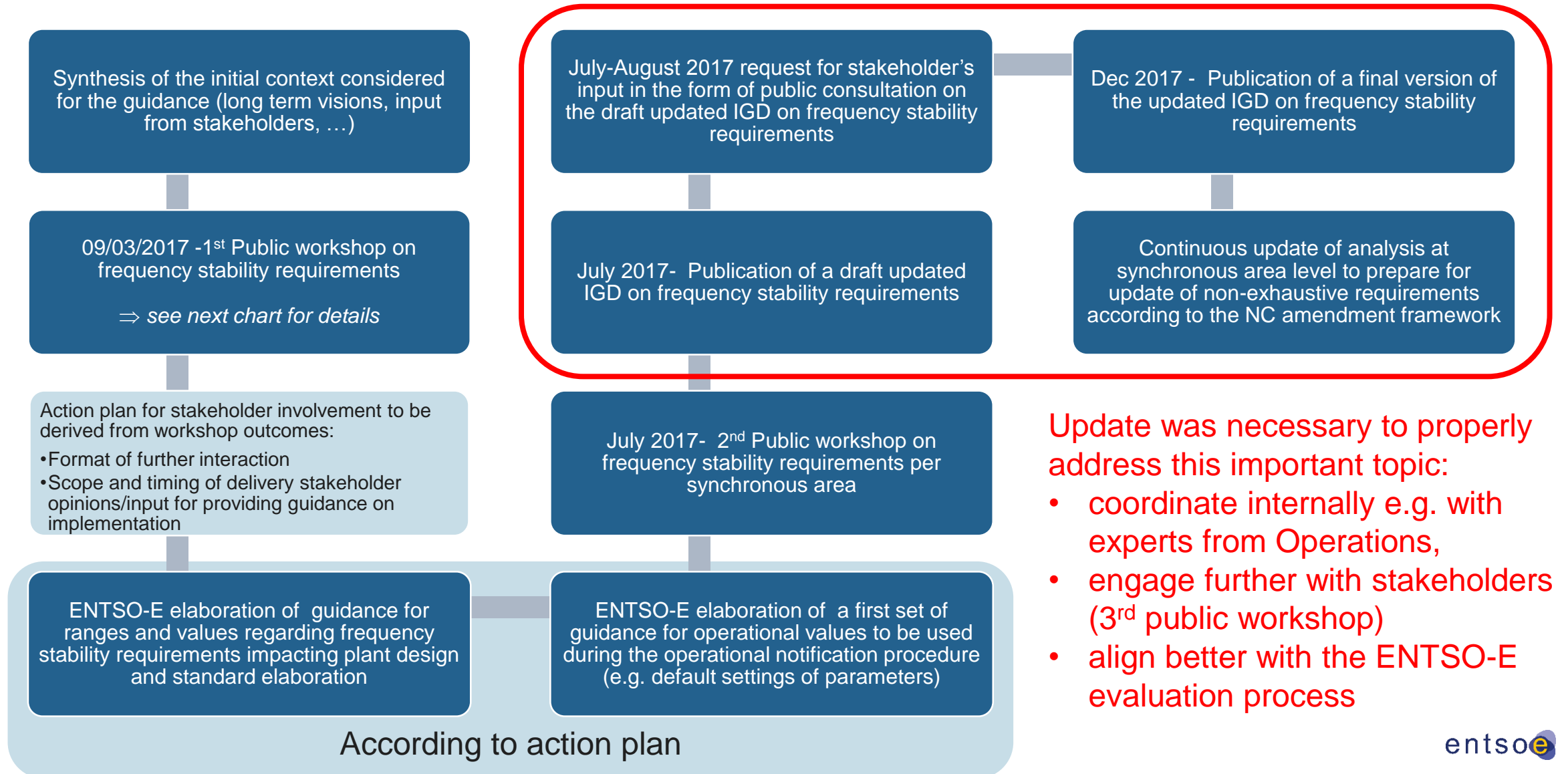
More information – agenda, participants' list and presentation – are found [here](#)

3rd Public Workshop on Freq. Stab. Parameters

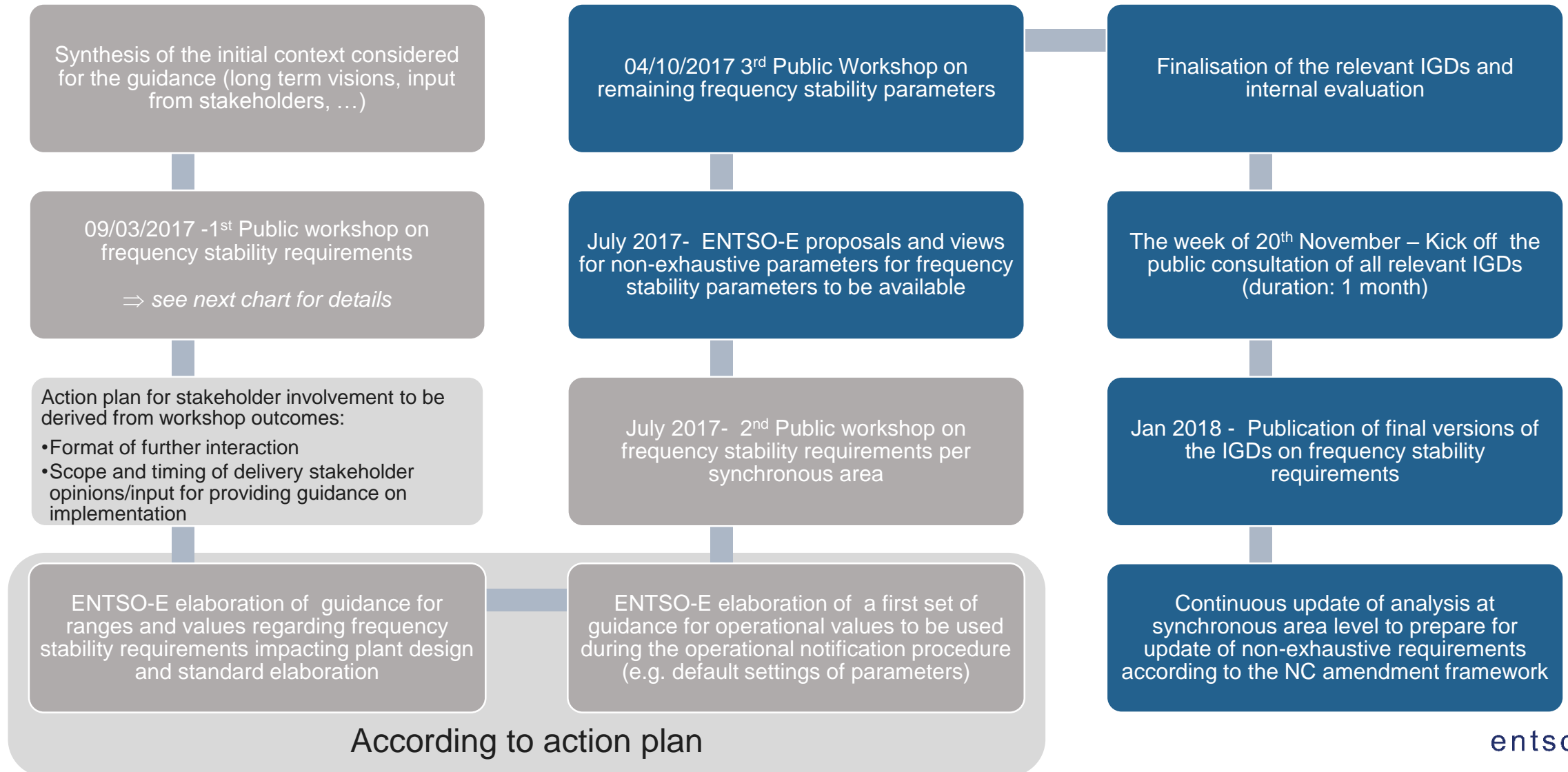
- October 4th in Brussels – Invitation sent
- The workshop will focus on
 - Demand Response System Frequency Control (DR SFC)
 - Frequency ranges of automatic connection and gradient of active power increase
 - Auto reconnection after an incidental disconnection
 - Admissible active power reduction at low frequencies.

Agenda and more information will be announced [here](#)

Roadmap on guidance for frequency stability requirements



Roadmap on guidance for frequency stability requirements (updated)



Overview plan for next months

KEY TOPICS

