Public workshop on NC HVDC – Call for Stakeholder Input

Date: 23May 2013
Time: 13h00– 16h00
Place: ENTSO-E premises, Brussels& via webinar

Summary

12:00	***Lunch***	
13:00	Welcome & introduction to NC development	**Dimitrios Chaniotis,** *ENTSO-E System Development Manager*
13:10	General approach towards a European Network Code on HVDC connection requirements	**Wilhelm Winter,** *ENTSO-E Convenor Drafting Team NC HVDC*
14:10	NC HVDC – Preliminary Scope and Key Questions	**Helge Urdal,** *ENTSO-E Member Working Group on European Planning Standards and Connection Codes*
15:30	Next steps in developing the NC HVDC	**Edwin Haesen,** *ENTSO-E Planning Methods Senior Advisor*
15:50	Concluding remarks	**Dimitrios Chaniotis,** *ENTSO-E System Development Manager*
16:00	***End of Workshop***	

1. Welcome and introduction to NC development

2. General approach towards a European Network Code on HVDC connection requirements

Eurelectric/Essent proposes to base connection requirements on HVDC converter connection points on NC RfG (for the connections operating in inverter mode) and NC DCC (for those operating in rectifier mode). Additional inherent functionalities of HVDC could be used, e.g. damping of inter-area power system oscillations, while technical differences need to be carefully analysed.
All agree that the NC HVDC should use NC RfG and DCC as starting point, but one should not be too purist in this respect. Changes and additional requirements will be inevitable as HVDC technology and usage have other characteristics. Differences between NC HVDC provisions and those of NC RfG and DCC should be explained.

EWEA asks whether the concepts on exhaustive / non-exhaustive and mandatory / non-mandatory requirements will exist in the NC HVDC. ENTSO-E considers this inevitable as the code has to apply to large and small systems, coping with system needs tomorrow and in the decades ahead.

DTEK asks whether also links to non-EU countries would be in the scope of this NC. Via webinar, PIVEX refers to its recent position on this in an ACER consultation. ENTSO-E does not give a final statement on this now but ensures this will be analysed from the legal angle.

On the balance between exhaustive / non-exhaustive requirements, Eurelectric/Essent states that the code should aim for more harmonization, but has to keep an open mind whether this is always realistic. EWEA states that manufacturers always prepare for the most onerous implementation, which makes any non-exhaustive requirement in the end de facto exhaustive.
Eurelectric/Essent notes that more harmonization eventually leads to better cost efficiency, but the level of detail of requirements shall be kept realistic and necessity beard in mind.

3. NC HVDC – Preliminary Scope and Key Questions

On the request for quantitative cost data, Eurelectric/Essent notes that sometimes two problems can be resolved by one solution, and that double counting of cost should be avoided. E.g. more reactive power capability and fast reactive current injection can both be achieved by larger sizing of power electronics.

ENTSO-E asks whether 2030 is an adequate time horizon in terms of the first plant complying with this code still being fit for purpose to cope with expected system challenges having emerged by 2030, as currently predicted through scenarios. EWEA states that a 12 month timeline is challenging for developing a code and suggest not being over-ambitious and keeping possible future code updates in mind. ENTSO-E notes that too little ambition in this network code now could result in future retrospective applications and thus additional cost, but also acknowledges that on the other hand, excessive requirements could result in capabilities not needed under some future scenarios and therefore at risk of being “stranded assets”. Eurelectric/Essent commented that many requirements have only minor or negligible cost implications (only require some lines of programming). For such requirements it would be better to include the capabilities early, to cover more of the possible future scenarios.

TU Darmstadt notes that the terminology of what is ‘radial’ and what is ‘meshed grid’ should be used with care. This has resulted in many discussions in CENELEC working groups already. ENTSO-E would appreciate to receive any outcome from these discussions already.

The University of Strathclyde asks whether info from R&D projects would be helpful as well in this Call for Stakeholder Input. ENTSO-E states it would surely appreciate this as well.

ENTSO-E proposes several questions on how to deal with multi-vendor compatibility. Eurelectric/Essent proposes to focus on AC grid requirements, and to leave the DC side connection specifications open to technical discussions and the market.

ENTSO-E notes the risk that different parties in a project may blame each other, or that the project owner may become 'locked in' by the first vendor.

Eurelectric/Essent refers to a recent study in the Netherlands on black start provisions. Small generators have proven to be able to energize larger plants, but could not keep the system voltage itself stable when load reconnects. What if HVDC systems start up a large system with unknown load? Large rotating machine can survive this, but can HVDC do the same? ENTSO-E would welcome further views on this.

Furthermore, Eurelectric/Essent notes that interactions between different converters, as well as between converters and other connections shall be covered in the code.

4. Next steps in developing the NC HVDC

ENTSO-E elaborates on the further timing of the NC HVDC development. The role of public workshops, as well as the User Group forum is explained. For further info on the timeline and possible engagement in the NC HVDC development, please contact ENTSO-E.

5. Concluding remarks

All are again invited to send feedback on the Call for Stakeholder Input to ENTSO-E by 7 June.

The active participation from everyone in the meeting, as well as in the webinar, is much appreciated.