

Documentation work – Hybrid AC/DC grid

Source: Wang, P., Goel, L., Liu, X., & Choo, F.H. (2013). Harmonizing AC and DC: A Hybrid AC/DC Future Grid Solution. *IEEE Power and Energy Magazine*, 11, 76-83.

Questions:

1. What is “the war of currents”? Explain both the context and the resolution. /2
2. What is behind the acronym “HVDC”? What are the motivations for preferring this technology rather than the present transmission AC network? /2
3. Explain the recent significant changes in distribution networks making electrical engineers reconsidering DC as a viable alternative to the present AC distribution network. /4
4. Which solution is proposed by the author? Explain the first grid structure proposed. /4

Note: Skip the section named *Hybrid DC/AC Grid Structure II* together with Figure 4 .