

Research Trends in High Voltage Power Transmission

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Abstract : High voltage transmission is the most pivotal process in the electrical power industry. It requires a robust infrastructure that can last for decades without causing impairment in human life. Due to the so-called global warming, power transmission system has started to experience some challenges which could presumably escalate more in future. These challenges are earthquake resistance, transmission power losses, and high electromagnetic field. In this paper, research efforts aim to address these challenges are discussed. We focus in particular on the research in regenerative electric energy such as: wind, hydropower, biomass and sea-waves based on the energy storage and transmission possibility. We conclude by drawing attention to specific areas that we believe need more research.

Keywords : power transmission, regenerative energy, power quality, energy storage

Conference Title : ICEECST 2014 : International Conference on Electrical Engineering, Computer Science and Technology

Conference Location : London, United Kingdom

Conference Dates : July 27-28, 2014