

The Role of DC Superconducting Power Transmission Line for Preventing the Global Warming

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Global warming is one of the key issues in this century, and we must introduce renewable energy sources such as solar cell battery and wind-generated electric power as much as possible to reduce the greenhouse gas because the GDP of the world will be increased several times compared with 2000 census at least. However, for example the solar power are located in the desert such as Taka Malan desert in Chian and Sahara desert in North Africa, and therefore we must transfer the electric energy to the place where many people live for long distance. I believe that the DC superconducting power transmission line (DC-SCPT) is a key technology to solve the problem because the loss of the DC-SCPT might be less than 1% for 1000 km transmission. From points of this view, I discussed the advantages of the DC-SCPT and the subjects to study and develop, and introduce the experimental result of DC-SCPT in Chubu University.