

## **Research Progress of KEPCO Research Institute for DC Distribution Vitalization in Korea**

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**Keywords:** *DC Distribution, Converter, Simulation, Feasibility Study*

### **Abstract**

KEPCO, Korean public power electricity company progresses low- voltage DC distribution demonstration projects. And finally, the destination is powering the DC customers with realistic LVDC distribution lines, +/-750VDC rating.

For this objective, Smart Power Distribution Laboratory of KEPCO Research Institute have been progressing various researches for several years, like as selection of DC voltage level and distribution methods, NPV feasibility study of LVDC distribution comparing with existing AC distribution system, development of PSCAD/EMTDC simulation model, installation of LVDC distribution test-bed and hardware test, build and operation 1.5km pilot LVDC network and etc.

This paper will introduce contents and results of researches for energization of DC distribution in Korea.