

SUPERCONDUCTING CABLES FOR VERY HIGH-POWER TRANSMISSION

BEST PATHS



The Best Paths project granted by the European Commission under the FP7 framework program, aimed to develop novel grid technologies to increase the European transmission capacity and electricity system flexibility. This was the first time a high voltage superconducting cable system has been designed employing as superconducting materials magnesium diboride. Apart from testing the suitability of MgB_2 for high power electricity transfer, the remaining components (cryogenics envelops, insulation and terminations) have been also examined taking into account the real grid condition. The project confirmed that MgB_2 can carry electricity up to 500 times more than copper, and that the wires are manufactured in a robust industrial process.