

Solid DC Submarine Cable Insulated with PPLP (Polypropylene Laminated Paper)

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Abstract

Since 1970, SUMITOMO Electric has developed PPLP (Polypropylene Laminated Paper), the only one new insulating material with high dielectric strengths and low loss that can replace conventional cellulosic kraft paper. Many PPLP insulated oil-filled cables have already been installed in up to 500 kV AC and DC transmission lines and a long-term demonstration test of as high as 800 kV AC cable was successfully completed at IREQ's test-yard of Hydro Quebec, Montreal, Canada in 1993.

This paper introduces the application of PPLP to long-distance large-power Solid DC submarine cable and its outstanding merits, taking the Bakun Project for instance, and stresses the importance of trying to make use of the "Kyoto Mechanism" or CDM (Clean Development Mechanism) based on the "Kyoto Protocol" to create clean power huge projects.