

Update of YOKOHAMA HTS Cable Project

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Abstract - HTS cable demonstration project supported by Ministry of Economy, Trade and Industry (METI) and New Energy and Industrial Technology Development Organization (NEDO) has started in Japan. The target of this project is to operate a 66 kV, 200 MVA HTS cable in the live network of Tokyo Electric Power Company (TEPCO) in order to demonstrate its reliability and stable operation. The design of the HTS cable with DI-BSCCO has been completed as well as those of a termination and a joint. A 30-meter HTS cable system with terminations, a splice and a cooling system was installed in SEI facility and confirmed the cable has good performances as design. HTS cable, splice box and termination vessels have been manufactured with the same design of a 30-meter cable system. By now, the HTS cables have been installed into the conduit at Asahi substation of TEPCO. The constructions of splice and terminations have been completed. The HTS cable system at Asahi substation was cooled down in this spring. This paper describes the design and completion test results of the HTS cable system.

Keywords - High-temperature superconductors, Superconducting power cables, Power cable installation, Power cable joint

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