

Phase-Shifting Transformer Efficiency for Dynamic Stability Enhancement of Electric Power Plants.

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This article represents the application of the thyristor controlled phase-shifting transformer (PST) capable to maintain the phase shift between the input and output voltage phasor within defined range during rapid transient. The positive influence was illustrated by PST installation in power distribution system of Boguchany Dam, which led to increasing of maximum generating capacity of Boguchany Dam, which was limited due to dynamic transient instability of generators.

Keywords: phase-shifting transformer, thyristor control, power flow control, dynamic stability