

**A Control Method for DC-DC Converter Used for High Voltage DC Feeding System  
in order to Effectively Utilize Regenerative Power**

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A high Voltage DC feeding system which consists of higher-Voltage feeders and DC-DC converters in addition to an existing feeding circuit makes it possible to supply Vehicles power with conventional feeding Voltage. In this system, the control method of the converter is an important consideration item to maximize energy saVing effect. In this paper, we propose a converter control method, named a DC-AT control method, to make the Voltage ratio between the overhead line and the higher-Voltage feeder constant. We evaluate the energy saVing effect of the high Voltage DC feeding system with a DC-AT control method by simulation.