

Ingeteam has been awarded by Mobiel with 3 energy recovery systems for the Bielefeld tramway system.

The INGEBER system, integrated on the substations, is transparent to its operation and solves energy recovery limitations.

The system is made up of a double converter, connected to the catenary in parallel with the substation's rectifier, and to the same already existing transformer.

Equipment is designed to minimize maintenance activities and space needed.

INGEBER monitors the state of the catenary at all times, and if there is energy to be recovered, converts it into high quality alternate current, which is fed back to the general three-phase grid.

Systems Characteristics

Catenary voltage:	750 Vdc
Alternating voltage:	630 Vrms
Maximum power:	1,000 kW
Rated power:	577 kW
Alternating current max.:	1,580 Arms
Direct current max.:	1,200 A
TDD%	<5%
Output frequency	50Hz
Cooling system:	Forced Air



TF 14 DTR 01_B 08/2012



Power diagram

