

Invitation to an ENE-Seminar

Date: Thursday, 16 May 2013
Time: 11:00h
Place: OSGA/EG 6

Increasing the transmission capacity of existing overhead power lines

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Abstract

The expected extensive use and integration of new renewable energy sources requires a substantial increase in electric power transmission capacity. As the public acceptance for new transmission line corridors is extremely low, methods to increase the transmission capacity of existing lines are actively investigated.

This presentation will start with an overview on power line rating limits and the principle options to increase the power transfer in an existing corridor. The focus will then be on two research topics that make use of the existing towers and conductors: i) the partial conversion of a multi-circuit AC line to a hybrid AC/DC-line and ii) the dynamic adjustment of the maximum current rating of a line with respect to varying ambient weather conditions (dynamic line rating).