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Type:

Electra

Title:

Conductors for the upgrading of existing overhead lines

Abstracts

Renewable and distributed power generation is displacing conventional base load coal and nuclear plants. This often causes large shifts in power flow during both normal and emergency operation of the transmission system. As a result, certain existing AC overhead transmission lines may exceed their design thermal rating during either normal or emergency operation.

This brochure concerns methods of increasing the thermal rating of existing overhead lines by raising the maximum temperature of the original conductor or re-conductoring the line with larger or high-temperature, low-sag conductors while avoiding the replacement or extensive reinforcement of existing transmission structures. In most applications, the line structures must be in good or excellent condition, to use these upgrading methods. The existing phase conductors, however, may be replaced with High-Temperature, Low-Sag (HTLS) conductors.

If the existing line voltage is to be increased (Voltage Upgrading), other CIGRE brochures should be consulted.

More Informations :

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