B2 - Overhead lines

Mission

Facilitate the exchange of information and the dissemination of knowledge on the design, construction and operation of overhead lines. Develop guidelines and prepare state of the art to assist practitioners and managers in their work. This includes mechanical and electrical design of line components, validation testing, condition assessment of line components and elements, maintenance, refurbishment and life extension as well as upgrading and uprating of existing overhead lines.

Technological field of activity

- Increase the ampacity of existing overhead lines;
- Ensure line reliability, or establish / improve reliability of existing overhead lines;
- Ensure environmentally compatible overhead lines;
- Assessment of lines, methods, new tools, maintenance.

Scope

Study Committee B2 covers all aspects of overhead line design (AC and DC), including construction, maintenance, modification of existing lines and environmental considerations. Specific areas of interest are:

- **Electrical Performance** deals with utilization of new and existing overhead power lines including modification of existing lines to allow increased power flow and economic design of new lines;
- **Towers, Insulators and Foundations** seek to improve diagnostic tools and modeling of in-service components, both dynamic and static foundation & structure loads, repair of corrosion in structures, and evaluation of new materials for line supports;
- **Conductors and Fittings** covers conductor fatigue and endurance capability, protection against wind induced vibrations, assessment of aged fittings and support in the preparation of standards, e.g. for fittings, conductor self-damping and conductor fatigue;
- **Asset management** considers electrical and civil aspects of line reliability and availability, including climatic loads, electrical clearances and live-line working.

Publications

View all publications for Study Committee B2 on eCIGRE.
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