



STUDY COMMITTEE B2

Terms of reference of Working Group SCB2. 54 : 2011- 2014

Working Group title:

**Management of Risk Associated with Severe Climatic Events
and Climate Change on Overhead Lines**

Convenor:

Henry Hawes (Australia)

Needs of Target Groups: (ref. SC B2 CAG Survey - July 2009)

- Anticipating climate change impacts on overhead line design and long service life
- Risk assessment for climatic events
- Uncertainty of expected Meteorological loads on power lines and methods of dealing with them

Terms of reference

This study group is to review the management of risk resulting from severe meteorological events; provide an overview of risk management techniques for the operation and management of overhead line assets; review the influence of aging and maintenance of overhead lines on reliability and their consequences in managing risk; review climate change impact trends; and review risk modelling techniques to assess the reliability of overhead lines.

The working group study will produce a reference guide to enable a better understanding and a considered approach method to better managing risk associated with severe climatic events and climate change impacts for future design and operation of high voltage overhead lines.

Background

There are concerns with the longer term exposure of overhead line networks to severe climatic events and their impact on future reliability.

Climate Change studies have also indicated a trend for the increase in frequency and intensity of severe climatic events, in particular severe wind and ice storm events. Evidence would suggest that there is a trend in some regions for an increase in failure rates.

There has been some pilot modelling studies already carried out in the field of risk



management of overhead lines in relation to severe wind storm exposure, and this work has been further applied to the off shore oil and gas facilities around the world.

The work carried out to date would indicate that asset owners need to be advised on any network exposure in order to mitigate the operational risks associated with these severe climatic exposures.

There is however limited or no application to network assets as there is limited guidance on what constitutes a responsible risk management approach that might be adopted.

Deliverables and Time Schedule

- Technical Brochure / Electra Report: June 2014
- Tutorial

Countries that already expressed their interest to contribute (to be confirmed):

Australia, USA,UK

Links with other SCs:

CIGRE SCs: C1, C2, C3, C4

Approval by Technical Committee Chairman: Klaus Fröhlich

Date: 17/05/2011