



Mapping the risk of icing of overhead structures in complex terrain

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Maps of risk of wet-snow icing have been constructed to aid the planning of new overhead power lines in the complex terrain of N-Iceland. The maps are constructed by a combination of

- a) a frequency analysis of observed meteorological conditions favourable for wet snow icing in various wind directions
- b) high-resolution numerical simulations of winds and precipitation.

The observational analysis determines the frequency of events with potential risk of wet-snow icing for given wind directions. The numerical simulations are carried out with constant wind and typical values of static stability. The patterns of wind and precipitation are simulated for 16 wind directions. Combining the patterns from the numerical simulations and the frequency analysis of the observations leads to risk maps for wet snow icing.