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Estimation of risk of wet snow icing of structures in dynamic downscalings of future climate scenarii

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Climate of the period 2071-2100 has been simulated at high-resolution over Iceland and Scandinavia, forced by boundaries from 2 global climate simulations from the Hadley Centre. This dynamic downscaling produces daily local values of all main weather parameters, including winds, temperature and precipitation. The weather conditions for wet snow icing are presented and these conditions are compared in a control climate simulation and in the future climate scenarii. The results indicate that events of wet snow icing at levels above the sea where powerlines are located should not be expected to become less frequent in a future climate than in current climate. For some regions, a forecasted increase in temperature increases the risk of wet snow icing and in other places the negative effect of increased temperature is compensated by increased precipitation.