

**Resolution of Frost-Phenomena Adherent to the Overhead Lines and  
a Study on Prediction Method of Overhead Line Frosting**

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To investigate the overhead line frosting phenomena, we analyzed meteorological elements when overhead line frosting occurred. As a result, it was clarified that probability of the frosting outbreak was high when the following conditions occurred at the same time: air temperature was less than  $0.5^{\circ}\text{C}$ , humidity was more than 80%, wind velocity was less than 1m/s and net radiation was less than  $-70\text{W/m}^2$ . Based on these climatic conditions and outbreak mechanism of the frost, we examined a method of predicting an outbreak of overhead line frosting using air temperature and humidity in the evening, and the forecasted weather condition and minimum temperature in the next morning.