

Induced Voltages On Fence Wires And Pipelines By AC Powertransmission Lines

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Summary

A method is developed for calculating the induced voltages on fence wires/pipelines underneath AC power transmission lines. The method is based on the charge simulation technique and takes into account the disturbances of the electric field and potential due to the presence of the fence wire/pipeline underneath the line. The calculated values of the induced voltage on fence wires are compared with those measured before. Induced voltages on pipelines underneath 230- and 380-kV lines are measured, correlated to the calculated values and discussed in the light of electric field induction on objects adjacent to AC power transmission lines

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