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**Abstract:** As wind power generation undergoes rapid growth, lightning and overvoltage incidents involving wind power plants have come to be regarded as a serious problem. Firstly, lightning location systems are discussed, as well as important parameters regarding lightning protection. Also, this paper presents a case study, based on a wind turbine with an interconnecting transformer, for the study of adequate lightning and overvoltage protection measures. The electromagnetic transients circuit under study is described, and computational results are presented Copyright (C) 2010 Praise Worthy Prize S.r.l. - All rights reserved.

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