Estimation of Real Emissions Reduction Caused by Wind Generators

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The aim is to show that the fuel economy and emissions reduction in the power systems consisting mainly of thermal power plants are not proportional with the electricity production of wind turbines. Participation of thermal power plants in the compensation of fluctuating production of windmills eliminates major part of the expected positive effect of wind energy. A method for calculation of real fuel economy and emissions reduction will be described and some calculation results will be given.