

Abstract: We analyse the impact of solar activity on Czech power grid. Massive solar flares are responsible for the formation of spaceweather and have a certain impact on technological infrastructures on the Earth and in its surroundings. We elaborated this issue and studied possible effects of spaceweather events on failure rate recorded in Czech power grid. The basis of the practical part is a program that processes the data recording the disturbances on power grid in the Czech Republic obtained by ČEPS (Czech Transmission System Operator) and compared those with the measured values of geomagnetic activity from Budkov station in Šumava by the statistical analysis methods. Our study revealed that there possibly exists some connection between the intensity of solar activity and disturbances in the Czech electrical power grid. It turns out that the number of faults on the grid during the period of increased solar activity is appreciably higher than in the period of lower solar activity. Our work contributes to the propagation of awareness of disturbances in the Czech electrical power grid that can also arise due to solar activity