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Methodical aspects of load shedding distribution in generation adequacy assessment problem.

The power deficiency distribution model influence on generation adequacy indices is considered. It is shown that a mathematical model used for power deficiency distribution (PDD) and the set of accepted constraints affect to the calculation error. As a rule, the calculation errors are caused by simplification of an accepted mathematical model. The accuracy of the calculations can be improved by including additional factors such as power transfer costs or by considering additional optimization criteria (e.g. Proportional Load Shedding Strategy). The importance of strategies (local, collective) of mutual assistance of the Power systems in the PDD problem is shown.

Keywords: adequacy, Monte Carlo simulation, load shedding strategy.