

ASSESSMENT OF ELECTRICITY SUPPLY INTERRUPTION COSTS IN ESTONIAN POWER SYSTEM

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Customers' perceptions of reliability do not always reflect the level of reliability suggested by traditional reliability indices. Thus the electricity supply industry in Estonia intends to relate reliability investments with customers' benefits obtained from such investments. A difficulty encountered by such efforts is the lack of appropriate valuation of these benefits. With a view to correcting this paucity, the authors have conducted a study aimed at assessing the characteristics needed to estimate the expenses of customers due to electric service interruptions. Because the time frame stated for the study was relatively short for a comprehensive large-scale customer survey, the results of the preliminary pilot survey were complemented with indirect analytical methods on basis of GNP and annual household income as well as on basis of analysis of corresponding characteristics of other countries. The final estimates for different customer sectors as well as for the whole country were found as averages of estimates found by different methods. Estimated were the characteristics of cost models most widely used by power system planners and briefly overviewed also in the paper. The used methodology can be applied for evaluation of electricity supply interruption costs under restricted time and information resources.

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