

Reliability Analysis of Breaker Arrangements in Distribution substations.

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Substations are the weakest link between the source of supply and the customer load points in a power system, because they comprise switching arrangements that would lead to loss of load. Determining the reliability expression of different substation configurations can help design a system with the best overall reliability. This paper presents a computerized and implemented method based on disjoint path-set method and its direct application on the evaluation of the reliability expression, reliability indices and costs of different switching arrangements. Keywords: Boolean function, pathsets, Power substation Reliability; RBD and reliability indices