

Reliability Analysis of 11kV Feeder at Dewathang

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Abstract---This paper presents the results of reliability analysis of 11kV feeder at Dewathang using reliability indices calculated analytically and an approach of predicting the indices of the system using Monte Carlo simulation has also been made. To analyze the reliability of the system, two methods are applied: first one is by collecting previous data and calculating the reliability using certain reliability indices. Another is reliability evaluation by using predictive measures. Firstly, the indices such as SAIFI, SAIDI and CAIDI are

calculated by using the tripping record data of last one year (2016) which were collected from the Electricity Service Division, Samdrup Jongkhar. Then the result using MC simulation is found.

Keywords: *Distribution system; Monte-Carlo simulation; Reliability; Reliability indices;*