ABSTRACT

Power transformer have an important role in the distribution of electric power. When fault occurred, it can reduce reliability of the transformer. One of problem in faults transformer is the fault of transformer oil. From the test results of DGA transformer oil carried out the analysis using a markov method for estimating the value of reliability and availability during the time of transformer operation.

In this final project, during the annual scheduling of maintenance, reliability has decreased as well as the availability of the transformer. Reliability can be affected by scheduling of maintenance time. When the 6-month of maintenance so the reliability increased, whereas if it done the 1 year 6-month of maintenance so the reliability decreased. As well the cost of maintenance, if the frequency in the implementation of maintenance increase, so the reliability of the transformer is better but the cost of maintenance more expensive than the cost of maintenance with a small frequency. The Results precise of scheduling may improve the quality of reliability in power transformers.

Key words: Transformer Oil, DGA, Markov