CASE STUDY ON CONDITION ASSESSMENT OF HIGH VOLTAGE UNDERGROUND XLPE CABLES AT TENAGA NASIONAL BERHAD, TNB DISTRIBUTION DIVISION (TNBD) TAIPING

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UNIVERSITI TEKNOLOGI MARA

MALAYSIA

NORAIN BINTI MOHMD ZAINI
2010853376
Faculty of Electrical Engineering
UNIVERSITI TEKNOLOGI MARA
40450 SHAH ALAM, SELANGOR DARUL EHSAN

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ABSTRACT

This paper describe the case study on condition assessment of high voltage underground XLPE Cables at Tenaga Nasional Berhad, TNB Distribution Division (TNBD) Taiping. The aim of this project is to make a review of the existing of high voltage underground XLPE cable at area of Taiping because nowadays TNB is in process to eliminate and change the PILC cable into XLPE cable. At the end of this paper, we can see the background details of XLPE cable used by TNBD Taiping such as size of XLPE cables and length of XLPE cable used by TNBD Taiping. Generally, the main degradation of high volatge cable for both XLPE and PILC cable is due to water treeing and partial discharge.From this study we also can observed the data of the testing XLPE cables based on the results of routine maintenance of XLPE cables done by Tenaga Nasional Berhad, TNB Distribution Division (TNBD) Taiping. The testing of the XLPE cable are insulation resistance test, dielectric abrption ratio test and partial discharge test. From this results of testing, the condition of the XLPE cables can be observed by the testing data from insulation resistance test, dielectric absorption ratio test and partial discharge test.

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