

INTISARI

Keandalan merupakan faktor yang sangat penting dalam pengoperasian suatu sistem jaringan distribusi. Beberapa parameter yang dapat dijadikan acuan dalam mengetahui keandalan suatu sistem distribusi yaitu dengan SAIFI (*System Average Interruption Frequency Index*) perhitungan indeks jumlah rata – rata gangguan selama satu tahun, SAIDI (*System Average Interruption Index*) indeks durasi rata – rata gangguan sistem selama satu tahun, CAIDI (*Customer Average Interruption Index*), ASAI (*Average System Availability Index*), ASUI (*Average System Unavailability Index*).

Berdasarkan perhitungan dan analisis didapatkan bahwa indeks nilai keandalan penyulang BTG06 dikategorikan kurang handal karena nilai SAIFI dan SAIDI melebihi batas maksimal yang telah ditentukan oleh IEEE.

Kinerja sistem di Gardu Induk PLN Rayon Batang dikategorikan kurang handal karena nilai SAIFI dan SAIDI melebihi dari batas maksimal yang sudah ditentukan oleh WCS dan WCC.

Kata Kunci: Keandalan, SAIFI, SAIDI, CAIDI, ASAI, ASUI.

ABSTRACT

Reliability is an important factor in the operation of network distribution system. Some of the parameters that can be used as references to determine the reliability of a distribution system are System Average Interruption Frequency Index (SAIFI), System Average Interruption Index (SAIDI), Customer Average Interruption Index (CAIDI), Average System availability Index (ASAI), and Average System Unavailability Index (ASUI).

Based on the calculation and analysis it can be found that the reliability value index of BTG06 feeder was categorized as less reliable because the SAIFI and SAIDI value exceed the maximum limit specified by IEEE.

The performance of the system in PLN Batang subdistrict considered less reliable because of the SAIFI and SAIDI value exceed the maximum limit specified by WCS and WCC.

Keywords: Reliability, SAIFI, SAIDI, CAIDI, ASAI, ASUI.