# *ABSTRACT*

*Distribution system as a 20 kV power supply that is directly related to the customer must be paid attention to its reliability in supplying power to the customer continuously. With the data analysis reliability 20 kV power distribution system can be known reliability of distribution system. The method used is Section Technique method, by performing data collection, data processing, and analyzing reliability of power distribution system 20 kV. The results obtained are the reliability index value of the repeater system in the form of SAIFI index, SAIDI and CAIDI under SPLN standard No.68-1 year 1986, then section on SPL04 is said to be a reliable repeater. Given the measurement of SAIFI, SAIDI and CAIDI index values, it can be seen that the quality of electric power is delivered to the customer or the load.*

*Keyword : Distribution system, Section Technique, reliability index, SAIDI, SAIFI, CAIDI.*

# INTISARI

Sistem distribusi sebagai penyaluran tenaga listrik 20 kV yang berhubungan langsung dengan pelanggan harus diperhatikan keandalannya dalam menyuplai daya ke pelanggan secara terus menerus. Dengan adanya analisis data keandalan sistem distribusi tenaga listrik 20 kV dapat diketahui keandalan sistem distribusinya. Metode yang digunakan yaitu metode *Section Technique*, dengan melakukan pengumpulan data, pengolahan data, serta menganalisis keandalan sistem distribusi tenaga listrik 20 kV. Hasil yang diperoleh yaitu nilai indeks keandalan sistem berupa indeks SAIFI, SAIDI dan CAIDI dibawah standar SPLN No.68-1, maka *section* pada SPL04 dikatakan penyulang yang handal. Dengan adanya pengukuran nilai indeks SAIFI, SAIDI dan CAIDI dapat diketahui kualitas daya listrik yang disalurkan ke pelanggan atau beban.

Kata kunci: Sistem distribusi, *Section Technique*, Indeks Keandalan, SAIDI, SAIFI, CAIDI.