Analisis Gangguan Penyulang Akibat Layang-Layang di PT PLN (PERSERO) Distribusi Jawa Barat dan Banten Area Garut Rayon Garut Kota = Feeder Fault Analysis Due to Kites in PT PLN (PERSERO) Distribusi Jawa Barat and Banten Area Garut Rayon Garut Kota

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Abstrak

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Suatu sistem tenaga listrik tidak bisa lepas dari berbagai macam gangguan listrik yang dapat mengganggu kualitas dan kontinuitas pelayanan pasokan listrik. Salah satu gangguan penyulang yang paling banyak menyebabkan terjadinya pemadaman listrik tak terencana di PT. PLN (Persero) Distribusi Jawa Barat dan Banten Area Garut Rayon Garut Kota adalah gangguan layang-layang. Pada tahun 2012 sebesar 36% pemadaman yang disebabkan gangguan penyulang terjadi karena layang-layang, dan meningkat menjadi 52% pada tahun 2013. Gangguan layang-layang ini dapat menyebabkan terjadinya gangguan hubung singkat 3 fasa, 2 fasa, 2 fasa ke tanah, ataupun 1 fasa ke tanah. Bahkan, dapat merusak dan membuat penghantar SUTM putus. Dampak dari gangguan penyulang oleh layang-layang ini berbahaya bagi manusia, baik pemain layang-layang itu sendiri maupun masyarakat yang berada di sekitar jaringan PLN yang mengalami gangguan karena dapat terkena sengatan listrik. Selain itu, terhentinya pasokan listrik membuat pihak PLN merasakan kerugian yang cukup besar dan membuat keandalan sistem (SAIFI dan SAIDI) menurun. Oleh karena itu, pada skripsi ini akan dilakukan analisis terhadap gangguan penyulang oleh layang-layang di PT. PLN (Persero) Distribusi Jawa Barat dan Banten Area Garut Rayon Garut Kota agar dapat ditentukan strategi untuk menekan frekuensi terjadinya gangguan tersebut.
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ABSTRACT
An electric power system can not be separated from a variety of electric fault that can interfere the quality and continuity of electricity supply services. One of the most feeders fault that causing unplanned power outages in PT. PLN (Persero) Distribusi Jawa Barat dan Banten Area Garut Rayon Garut Kota is the kites disruption. In 2012, 36% outage caused by feeder faults occured because the kites disruption, and increased to 52% in 2013. Kite disruption can lead to 3 phase, 2-phase, 2-phase to ground, or 1 phase to ground short circuit. In fact, it can destroy and create SUTM broken conductor. The impact of feeders faults due to kites is harmful to humans, both the kites players itself and the people who are around the grid which is harmed can get an electrical shock. In addition, the interruption of electricity supply makes PLN get some substantial losses and make the system reliability (SAIFI and SAIDI) decreases. Therefore, in this thesis will carried out an analysis of the feeders fault due to kites in PT. PLN (Persero) Distribusi Jawa Barat dan Banten Area Garut Rayon Garut Kota to determined some strategies to suppress the occurrence frequency of that fault., An electric power system can not be separated from a variety of electric fault that can interfere the quality and continuity of electricity supply services. One of the most feeders fault that causing unplanned power outages in PT. PLN (Persero) Distribusi Jawa Barat dan Banten Area Garut Rayon Garut Kota is the kites disruption. In 2012, 36% outage caused by feeder faults occured because the kites disruption, and increased to 52% in 2013. Kite disruption can lead to 3 phase, 2-phase, 2-phase to ground, or 1 phase to

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