

ABSTRAK

Penelitian ini dilatarbelakangi oleh semakin pesatnya persaingan pada perusahaan energy yang mengutamakan kualitas demi menjaga keselamatan dan kepuasan *costumer*. Tujuan penelitian di perusahaan *Manufacture energy* yaitu meningkatkan kualitas dan mengurangi *Manufacture Defect Rate* pada produksi *switchgear low voltage* yang terjadi pada proses produksi *busbar assembly*, tahun 2021 hanya 3 (tiga) bulan yang dapat memenuhi standar perusahaan yaitu 3,665 dan rata-rata *defect rate* yang ada ialah 3,448. Metode yang digunakan ialah DMAIC guna mengidentifikasi faktor penyebab cacat pada proses produksi dan upaya meningkatkan *level sigma*. Hasil dari penelitian metode DMAIC maka ditemukan *defect rate* tertinggi pada *defect busbar treatment*, dibuatlah usulan perbaikan yaitu pada faktor manusia dengan kampanye “*Think like costumer & Act like costumer*”, pengecekan *coating thickness*, *weekly preventive maintenance* dan *auto control*. Kesimpulan dalam penelitian ini ialah dengan menerapkan usulan perbaikan yang diajukan dan melakukan *control* dengan baik maka diharapkan dapat mengurangi *Manufacture Defect Rate* pada produksi *Switchgear Low Voltage*.

Kata kunci : *Level sigma, Manufacture Defect Rate, DMAIC, Usulan perbaikan*

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ABSTRACT

This research is motivated by the increasingly rapid competition in energy companies that prioritize quality in order to maintain customer safety and satisfaction. The purpose of research at Manufacturing energy companies is to improve quality and reduce Manufacturing Defect Rates in low voltage switchgear production that occurs in the busbar assembly production process, in 2021 only 3 (three) months can meet company standards, namely 3,665 and the existing average defect rate is 3,448. The method used is DMAIC to identify the factors causing defects in the production process and efforts to increase the level of sigma. The results of the DMAIC method research found the highest defect rate in the busbar treatment defect, a proposed improvement was made on the human factor with the "Think like customer & Act like customer" campaign, coating thickness checking, weekly preventive maintenance and auto control. The conclusion in this study is that by implementing the proposed improvement and controlling it properly, it is expected to reduce the Manufacturing Defect Rate in the production of Low Voltage Switchgear.

Key words : *Level sigma, Manufacture Defect Rate, DMAIC, Improvement*



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