

# **FORECASTING ANALYSIS OF ELECTRICITY NEED FOR PLN BOROBUDUR REGENCY MAGELANG REGENCY USING LINEAR REGRESSION METHOD**

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## **ABSTRACT**

*Borobudur District, Magelang Regency is one of the districts with a high level of electricity consumption in Magelang Regency. The high consumption of electrical energy in Borobudur District is influenced by economic activity which is getting higher along with increasing population, tourism and industry growth, as well as technological advances. This increase in consumption occurs to drive the wheels of the economy. Forecasting is a technique for predicting the desired need for a product in some future time period. based on data summarized from company statistics PT. PLN Borobudur Region for 2009-2019 and PLN statistics for 2009-2021. The method used is simple Linear Regression with SPSS for Windows simulation program. The results of the predicted total increase in electricity consumption for industrial loads are 869 thousand kWh (average annual growth of 4.427%) and for non-industrial loads of 4,108 thousand kWh (average annual growth of 3.856%). The predicted total increase in the number of electricity customers for industrial expenses is 82 customers (average annual growth of 6.826%) and for non-industrial expenses of 50,574 customers (average annual growth of 3.338%).*

**Keywords:** *Electrical Energy Consumption, Linear Regression*