Title : Suitable forecasting model for data on percentage of accumulated electrical loss units of the Provincial Electricity Authority (Northern)

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ABSTRACT

This research aims to compare statistical forecasting methods to predict the monthly cumulative electricity loss units in the power system of the Provincial Electricity Authority (Northern Region), Chiang Mai District 1, from January 2012 to December 2023, covering a total of 144 months. The data is divided into two sets: the first set comprises 132 months of electricity loss data from January 2012 to December 2022, and the second set includes 12 months of electricity loss data from January to December 2023, used to compare the accuracy of the forecasting models. The forecasting methods are evaluated based on the Mean Absolute Percentage Error (MAPE) and the Root Mean Squared Error (RMSE). The most appropriate model is the one with the lowest MAPE value. The research findings indicate that the SARIMA model is the most suitable.

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