

Local Approach to Forecasting Household Gas Consumption in Poland: A Comparison of ARIMA and ETS with Fuzzy Methods*

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Abstract

In this study, the objective was to determine which forecasting approach, either fuzzy or statistical, is more effective for predicting household gas usage in Poland at the commune level. The data utilized were sourced from various geographical areas within Poland. Those dataset are characterized by short length of single time series. Our goal was to see which method gave the most accurate predictions for this kind of data. The results are important because they can help gas companies and decision-makers in Poland understand which method to trust when planning for the future. The study primarily focuses on fuzzy forecasting and local approach forecasting.

Keywords: fuzzy forecasting, local approach, forecasting