Electricity Demand Estimation

For

Leading Electricity Distributor

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ANALYTIXLABS

Business Context:

One of leading electricity Distribution Company would like to understand demand for electricity for the next 1-2 years to manage the production of electricity and managing the vendors for the same. It is one of the important exercises to getting accurate estimation of demand so that they can procure or produce the electricity as per the demand.

Available Data:

The data of monthly electricity consumption available starting from January 1973 to December 2019. We need to forecast the demand for next two years.

1. Date – Month & Year
2. Electricity Consumption – Electricity consumption in Trillion Watts

Business Objective:

a. Need to forecast the demand of electricity for next 1-2 years.
b. Calculate error metrics (RMSE, RMSPE, MAPE)
c. Compare various models including Decomposition, ETS models, ARIMA/SARIMA Models with various parameters etc…

Expected Outputs:

a. Required to submit detailed code with proper comments
b. Provide model validation metrics/accuracy metrics
c. Provide demand estimation for next 1-2 years on monthly basis
d. Provide which model you selected and reason for selection