

The forecasted accuracy of the bioenergy market in the EU-28 region

ABSTRACT

We developed and evaluated a new approach to investigate the accuracy of forecasted analysis findings of the bioenergy market in the European Union EU-28 between 2014 and 2020. This study tests the accuracy of forecasted analysis results by applying panel data analysis and using the ARIMA forecasting model. Testing the forecasted accuracy for the bio-energy market in the EU-28 zone resulted in an increase in the ratios of supply by 3.04 million tonnes of oil equivalent (Mtoe), demand by 13.83 Mtoe and import by 13.39 Mtoe of bio-energy output, which is logical for achieving objectives of the 2020 National Renewable Energy Action Plan (NREAP). However, export rates are predicted to reduce markedly in all EU28 countries by 26.87 Mtoe because of the significant efforts of the EU-28 states to increase local demand of bio-energy products. This study contributes to the literature by providing an accurate forecasted analysis of the status of the bio-energy markets in the EU-28 zone till the end of 2020 for decision makers and other energy politicians.

Keyword: Bioenergy forecasted; Evaluation analysis; Bio-energy market; EU-28 zone