

Evaluation of sector wise energy saving and energy rebound effect in Bangladesh by three dimensional decomposition method(Article)(Open Access)

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Abstract

In this study, the energy saving pattern defined by the difference of trend and real values of energy consumption is analyzed by Complete Decomposition Method for Bangladesh during the period of 1991-2007. The trend of energy consumption that relies upon activity effect and the real energy consumption which depend upon activity effect along with the intensity effect and structural effect are analyzed for major economic sectors of the country namely, agriculture, industry and service. It has been revealed through calculations that the country has saved energy of about 4 MTOE in agriculture sector. On the other hand, industry and service sectors which together accounted for 90.2% of the total energy consumption, failed to save energy rather the country consumed 66.38 MTOE more energy than usual. The energy rebound effect that relies upon the activity effect and structural effect has also been estimated to examine the energy uses pattern of these sectors. The calculated data of energy rebound effect have shown the similar nature of energy saving pattern during the whole study period. The aggregate energy

rebound effect was found to be 71.42 MTOE of which activity effect and structural effect contribute 101.2 and -1.2%, respectively. © Medwell Journals, 2010.

Author keywords

Bangladesh Complete decomposition method Energy consumption Energy rebound effect Energy saving Structural effect

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