A Short-Run Estimate of Electricity Consumption Among Selected Barangays in the Town Proper of Oton

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ABSTRACT

The electricity demand estimation was conducted in the municipality of Oton, Iloilo Province; specifically between 2 town proper barangays and among 125 out of 1246 households ,it also describes the socio-economic profile of the respondents. The econometric model's dependent variable was the households' electricity consumption in kilowatt-hours, while the independent variables used in the study were marginal price of electricity, household size, monthly household expenditures, average price of LPG, and dummy variables for major appliances, namely: refrigerator, air conditioner, TV and fan.

The modified double-log form was chosen to correct for non-normality. The resulting R-square was .631. The price and income coefficient is inelastic, as expected of a necessity, although the sign of the former is unexpectedly positive. Thus, consumption increases along with improvements in the appliance stock. Appliances, like air conditioners and refrigerators are expectedly among the most influential variables. Income is inelastic, showing that electricity is a normal good. The consumption of liquid petroleum gas has no significant impact on electricity consumption since LPG serves to fulfill the minimum requirement of heating fuel. The household size and fuel variable are significant yet at a lesser degree. The non-significant variables are the TV and fan appliance variable.