Choice and consumption of energy sources at the residential level in Lima, Callao and Ica
an econometric approach[1]

Gustavo Meza

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Abstract

This paper analyzes the factors that determine the choice and consumption of energy in households in Lima, Callao and Ica. A theoretical framework based on the two-stage discrete continuum model of choice and consumption by Dubin & McFadden (1984) is presented. The results show that household spending and socioeconomic characteristics such as the age of the head of the household, the number of people in the household and the physical characteristics of the households determine the probability of choosing LPG and natural gas. On the other hand, the demand equations show that the level of household spending and the prices of LPG and natural gas are the main determinants of the consumption of these types of energy at the residential level. Additionally, the price elasticities of both fuels were calculated and it was identified that natural gas has a price elasticity of 1.9 while LPG is price inelastic. Both fuels are inelastic in cost.

Keyword: Energy consumption, energy demand, multinomial logit, selection bias.

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