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ACCEPTED MANUSCRIPT

**Determinants of Energy Consumption in Kenya: A NIPALS Approach** 

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**Abstract** 

This study examines the drivers of aggregate energy consumption, fossil fuel and electricity

consumption in Kenya using the nonlinear iterative partial least squares (NIPALS) method.

The results show the importance of price, population density, urbanization, and renewable

energies from hydro sources in promoting energy demand reductions. On the contrary, higher

income and climate change are likely to cause a backfire in energy consumption. Though

population growth increases the consumption of other energy types, it shows opposite effect

on electricity consumption, which is possibly explained as a substitution to other energy types

in the presence of a fragile electrical system. These results have important implications for the

design of energy conservation and efficiency policies in Kenya.

Keywords: Energy consumption; Fossil fuel; Electricity; NIPALS; Kenya

JEL Classification: Q470; Q560; Q430

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