**Energy Efficiency Plan Benefits in Ecuador: Long-range Energy Alternative Planning (LEAP) model**

**Vicente Sebastian Espinoza1, Verónica Guayanlema1, Javier Martínez-Gómez1,2**

**sebastian.espinoza@iner.gob.ec****,**

1 Instituto Nacional de Eficiencia Energética y Energías Renovables (INER), Quito, Ecuador.

2 Universidad Internacional SEK Ecuador; Quito EC170134, Quito, Ecuador

# ABSTRACT

The aim of this study was to analyze the energy demand in a scenario considering the National Policy for Energy Efficiency (PLANEE) of Ecuador. For this purpose, the effects on energy supply and demand by taking into account an economic scenario were studied. The economic scenario considered historical Gross Domestic Product (GDP). The main contribution is this scenario was considered the Development Plan and current information. The data selected included the fall in GDP in 2015 as a result of the crisis caused by the fall in oil prices. The energy scenarios were designed using Long-range Energy Alternative Planning (LEAP) model. Two scenarios were development, business as usual (BaU) without policies and projects. The results show that energy efficiency measures implicate cumulative energy savings that could reach 216,700 kBOE between 2015 and 2035.

**Keywords: Energy scenarios/ Energy efficiency/ LEAP**