ASSESSMENT OF THE IMPACTS OF ELECTRICITY SUBSIDIES IN SRI LANKA

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W.D.A.S Wijayapala

To my dearest Parents

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Abstract

Government of Sri Lanka provides subsidy on electricity to uplift the living condition of citizens for decades. This research project mainly scrutinize, whether the objectives of the electricity subsidies have been fulfilled or not. Further, both positive and negative impacts of electricity subsidy is descriptively discussed. Appropriate remedial actions are proposed for the betterment of identified indirect negative impacts. In the analysis, it was found that some primary objectives of the electricity subsidy have not been achieved. One of the most subtle negative impact recognised is the encouragement of energy inefficient equipment usage among subsidized consumers. A case study was conducted in Ratnapura District to investigate the energy inefficient equipment usage and to quantify the electricity wastage. Findings were used to estimate the electricity wastage in whole country due to inefficient equipment. Further, it was found that the existing tariff structure encourages the energy inefficient equipment usage and it acts contradictory to the fundamentals. As a possible way of saving electricity and catering the demand at night peak, replacement of incandescent lamps were analyzed and possible saving were estimated. Moreover the investment on replacing incandescent lamps by energy efficient equipment was estimated and financially evaluated with the returns.

Additionally, it was found that the eligibility criteria of current subsidy is having many loopholes. The major shortcoming is that it allows unwanted people to enjoy the subsidy. The additional burden to the treasury has been estimated as LKR 11 billion per year. It was seen that modifications are needed for electricity subsidy eligibility to ensure only needy people receive the electricity subsidy.

Meanwhile modifications are needed for tariff rates fixing method. New equation shall be introduced based on actual generation cost for the tariff rates calculation with appropriate justifications. Further it is recommended to reduce the electricity subsidy gradually to zero. Discouragement of energy inefficient equipment usage by introducing new taxes, promoting energy efficient equipment, introducing subsidies to energy efficient equipment and conducting awareness programs regarding the electricity conservation are the other recommendations to minimize the negative impacts of electricity subsidy.

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LIST OF ABBREVIATIONS

Abbreviation	Description
ABC	Ariel Bundled Conductor
AC	Alternative Current
AR	Annual Report
CEB	Ceylon Electricity Board
CFL	Compact Fluorescent Lamp
CPC	Ceylon Petroleum Cooperation
DCMG	Direct Current Micro Grids
GES	Global Energy Statistics
NCRE	None Conventional Renewable Energy
IESL	Institution of Engineers Sri Lanka
LECO	Lanka Electricity Company
LED	Light Emitting Diode
LKR	Sri Lankan Rupees
MFP	Ministry of Financial Planning
RE	Rural Electrification
SL	Sri Lanka
UNEP	United Nations Environmental Program
US	United State
WB	World Bank
PUCSL	Public Utilities Commission of Sri Lanka

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