

FEASIBILITY STUDY OF THE INSTALLATION OF ROOF TOP SOLAR PV SYSTEMS

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Abstract

The consumption of natural resource-related operations is highly costed in contemporary energy generation operations. Many operations are running with the power of water and minerals. Electricity generation is done with these scarce resources for the daily consumption of humans. As a result of these operations, the environmental system is polluted by the discharges of this mineral-related petroleum combustion. CO₂ is released by the massive industries with their operations. Therefore, using these resources for electricity generation is not a positive growth of the present scenario. According to modern economical researchers and scientists, the reduction of harmful energy generation and reducing the polluted air leaving from their productions is necessary. As a solution for that the Go Green concept is raised. Generating the power with Photovoltaic is a highly effective product for the modern Go Green concept. According to these investigations, this report is directed to analyze solar PVs technology, the usage of this technology, and the benefits from that to the modern economy of the country.

To reduce greenhouse gases emission from the energy sector solar energy can be used as a solution and it is in the top list of renewable energy that has much potential in Sri Lanka. The purpose of this study is to investigate barriers to the installations of rooftop solar PV systems in the country. For this study, Literature reviews are used as the primary tool. Adding 1000 MW to the national grid by 2025 is one of the main targets in the Sri Lankan government. To fulfill this target, barriers to the installations of rooftop solar PV systems in the country should be considered.

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LIST OF ABBREVIATIONS

Abbreviations	Descriptions,
Ab	Ability.
Acc	Acceptable.
Ina	Inability
Neg	Neglecting
Po	Possible
Ns	No System
Ava	Available
Ins	Installed
Imp	Impossible
N Acc	None Acceptable
Imp	Impossible
PV	Photo Voltaic
DC	Direct Current
AC	Alternative Current
PUCSL	Public Utilization Commission of Sri Lanka
SE	Solar energy