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Solar Power Assessment for Photovoltaic Installation in Malaysia University Campus

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Abstract

This research was carried out as preliminary studies before installing photovoltaic solar panels on the roof of the International Islamic University Malaysia (IIUM) Mosque. Poor application strategies for saving energy in mosques constitute high energy consumption and cost. Due to their functional and operational characteristics, Mosques consume relatively more power than other types of buildings. The first objective is to determine energy consumption in IIUM Mosque. The second objective is to assess the Solar Photovoltaic power potential in the International Islamic University Malaysia (IIUM) Campus. The research methodology was carried out through literature review and fieldwork measurement of the available solar power on the International Islamic University campus. The total amount of solar energy collected has shown the potential of installing Photovoltaic Solar Panels in IIUM, aligned with the Sustainable Campus initiative. © 2021 IEEE.

Author Keywords

photovoltaics; solar power; sustainable campus

Index Keywords

Energy utilization, Solar concentrators, Solar panels, Solar power generation; Application strategies, High energy consumption, High-energy costs, Malaysia, Photovoltaic installation, Photovoltaics, Saving energy, Solar panels, Sustainable campus, University campus; Solar energy

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