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Rooftop Solar Panels: A Sustainable Green Energy Solution

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Abstract: A solar panel is an energy system that provides a sustainable alternative to conventional nonrenewable sources. As a decentralized power solution, it captures solar energy and converts it directly into electricity through the photovoltaic effect. The primary advantage of installing solar panels lies in their eco-friendly nature, producing clean energy without emitting carbon or other harmful pollutants. Despite these benefits, consumer adoption of solar products remains relatively low when compared to traditional energy sources. Key barriers include high upfront installation costs, limited space availability, and inconsistent energy output due to changing weather conditions. This paper examines the potential of rooftop solar panels and investigates consumer perceptions and attitudes toward their adoption. The study is based on data gathered from 50 individuals in Indore, comprising both users and non-users of solar panels.

Keywords: Solar rooftop Panels, Potentiality, consumer perspective, Utilization, Govt. initiatives, Government subsidies



