

# Simulation of Two-Stage Solar Grid Connected PV System

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**Abstract:** *The project concerns with the study of generation of electricity along with low-cost waste water treatment from Dual Chamber Microbial Fuel Cell (MFC). This study attempts to evaluate the performance of a double chamber MFC by manipulating the waste water, electrode thickness, the distance etc in order to attain the maximum power output along with waste water treatment. Today we are witnessing a global energy crisis due to huge energy demands and limited resources. Non-renewable energy sources are depleting and renewable energy sources are not properly utilized. There is an immediate need for search of alternate routes for energy generation. Microbial fuel cell (MFC) technology, which uses microorganisms to transform chemical energy of organic compounds into electricity, is considered as a promising alternative for simultaneous treatment of wastewater along with energy production. Extensive studies have corroborated new insights into MFC, which show that a wide array of carbon sources including wastes can be employed using a variety of microbes. Consequently, microbial transformation of wastes using novel bioremediation strategies such as MFC for energy generation is considered as an efficient and environmentally benign Approach.*

**Keywords:** Microbial fuel cell (MFC), Electricity, Technology, Waste, Pollutant, Waste- to- energy

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