

Solar Water Purifier Machine

Prof. Kalpana D. Vidhate¹, Onkar S. Sarode², Vishal R. Achalkar³, Dnyaneshwar B. Bhujbal⁴

Assistant Professor, Department of Electrical Engineering¹

Students, Department of Electrical Engineering^{2,3,4}

Dr. Vithalrao Vikhe Patil, College of Engineering, Ahmednagar, India

Abstract: *The Solar Water Purifier Machine (SWPM) is an innovative device designed to provide clean, potable water using solar energy, particularly in remote or disaster affected areas. This paper explores the design, functionality, and effectiveness of the SWPM, highlighting its potential impact on communities lacking access to safe drinking water. The study includes a detailed analysis of the components, the working mechanism, and a comparison with traditional water purification methods. Additionally, it examines the environmental benefits and economic feasibility of deploying SWPMs in various regions. The purified water is then stored in a tank for later use. The machine is designed to be low cost, portable, and easy to operate, making it ideal for use in areas where access to clean water is limited. The solar powered operation ensures sustainability and reduce the carbon footprint, making it an environmentally friendly solution for water purification.*

Keywords: Solar, Water Purifier, Charge, Machine