

Title: Solar-Powered Water Purification System

Good afternoon, everyone. Today, I'll be presenting the summary of our final year project, which focuses on developing a solar-powered water purification system for remote areas.

Our project aims to address the lack of access to clean drinking water in underdeveloped regions. We designed a system that harnesses solar energy to power a filtration unit, effectively removing impurities and pathogens from contaminated water sources.

The system consists of a photovoltaic panel, a storage battery, and an advanced filtration unit. Through sunlight absorption, the solar panel generates electricity stored in the battery, which then powers the filtration process. Our filtration unit incorporates both ceramic and activated carbon filters to ensure comprehensive purification.

During testing, our prototype successfully produced up to 10 liters of clean water per day, meeting the daily needs of a small household. The system's low maintenance requirements and sustainable energy source make it an ideal solution for remote communities.

In conclusion, our project demonstrates a feasible approach to providing safe drinking water using renewable energy. We believe this design can be implemented broadly to improve health and quality of life in regions lacking basic resources.

Thank you for your attention.