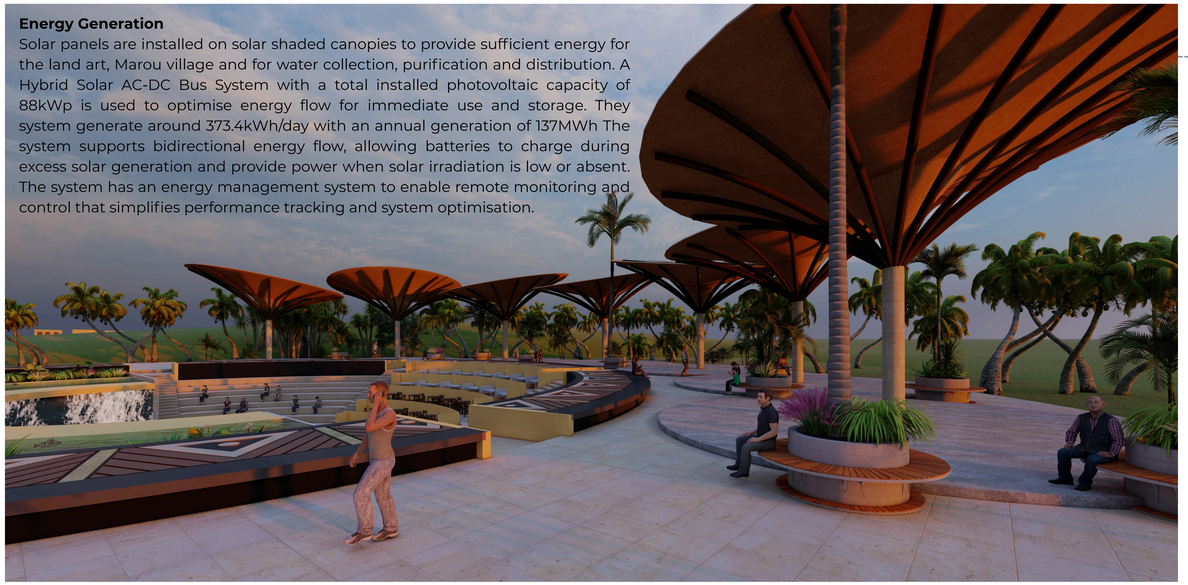
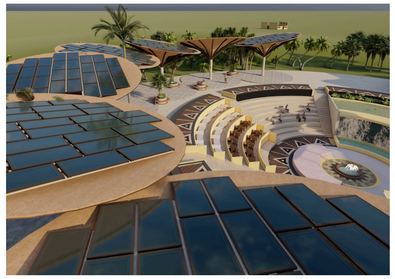
WATER HARVESTING & ENERGY GENERATION



Energy Generation
Solar panels are installed on solar shaded canopies to provide sufficient energy for the land art, Marou village and for water collection, purification and distribution. A Hybrid Solar AC-DC Bus System with a total installed photovoltaic capacity of 88kWp is used to optimise energy flow for immediate use and storage. They system generate around 373.4kWh/day with an annual generation of 137MWh The system supports bidirectional energy flow, allowing batteries to charge during excess solar generation and provide power when solar irradiation is low or absent. The system has an energy management system to enable remote monitoring and control that simplifies performance tracking and system optimisation.

Marou Village Integrated with Solar Shaded Canopies & Water Reservoir

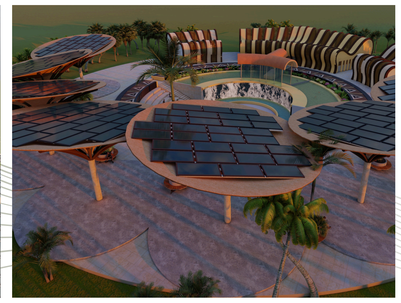


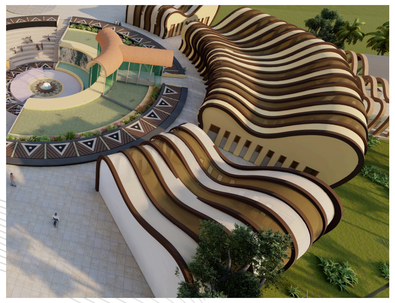
Canopy that hosts solar panels.

Water Fountain

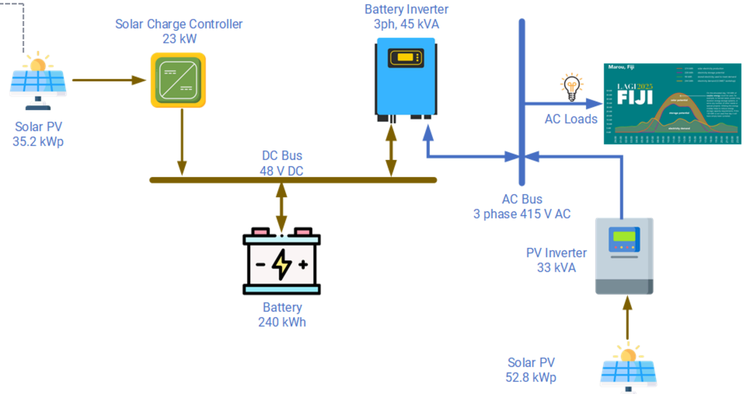
Underground Water Cistern

Water Harvesting.
The main sources of water collection include rain harvesting intentionally on the design site, through the amphitheatre or "Kava bowl", and the shaded structures forming the pavilion. A reservoir is built across the stormwater channel, providing an additional source. All of this accounts for over 3 million litres of water for villagers for domestic consumption and agriculture. Sea water and hard well water provide supplemental water to the village. The salt water is desalinated using solar-powered reverse osmosis with energy-recovery devices, saving up to 75% energy consumption. Wastewater is treated and managed through green filters/constructed wetlands using aquatic plants that naturally filter and recycle water, promoting self-sufficiency and sustainability





I) ENERGY GENERATION DIAGRAM



II)WATER GENERATION DIAGRAM