Technologies

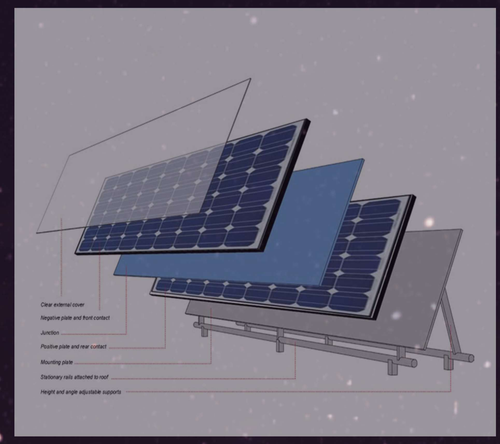
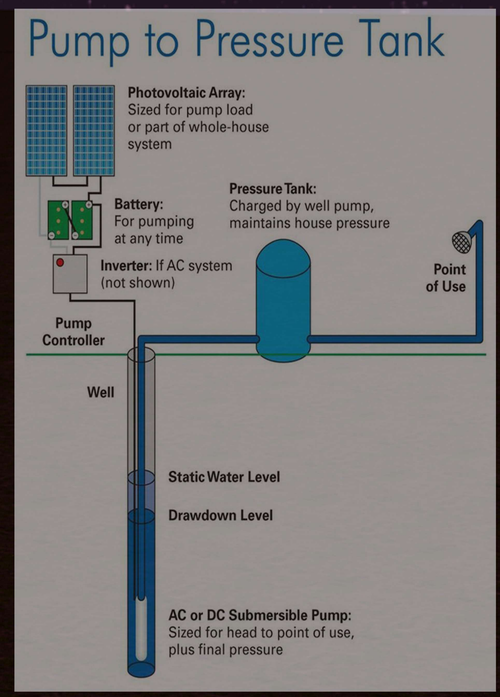
Our design includes:
1. Solar Panels: They provide electricity for the canopies and nearby homes. The installation is expected to generate about 50 MWh of electricity per year.
2. Rainwater Collection Systems: These systems can collect up to 10,000 liters of rainwater annually, significantly improving access to fresh water for local residents.
3. Water Filtration: Built-in filters ensure the cleanliness of the collected water.

System Inputs and Outputs

The inputs of the system are solar radiation and rainwater. The outputs include:
- A 30% increase in available electricity for local residents.
- Improved drinking water quality, contributing to a reduction in water-related diseases.

Prototyping Process and Pilot Implementation

Our team will use an iterative prototyping method, starting with small-scale models that will be tested for functionality and sustainability. The pilot implementation will be carried out in collaboration with the local community, involving them in the design process and feedback, ensuring alignment with local needs and traditions.

Operation and Maintenance

The canopies will operate with minimal costs due to the use of sustainable materials. The local community will be trained in system maintenance, creating jobs and enhancing the quality of life. Regular training sessions will provide skills for maintaining solar panels and filtration systems.