NET.

We have created an abstract energy park on Fiji, designed to support the local community with sustainable electricity. Generating 154 kW of power annually, the park plays a key role in improving energy access for the island's residents. The structure is built entirely from BIPV (Building-Integrated Photovoltaics) panels, seamlessly combining architecture and renewable technology. Its form is inspired by the calm and flowing shapes of traditional fishing nets and the quiet rhythm of wooden piers. This unique design not only blends into the coastal landscape but also reflects the island's cultural heritage, offering both functionality and symbolic meaning. The abstract energy park stands as a peaceful yet powerful reminder of how innovation and tradition can coexist in harmony.

Technology:
A flexible, suspended canopy structure made from an open woven mesh that integrates a multitude of micro spherical solar cells.

Energy Generated Per Year:
154 kWh

Description:
The sun is constantly moving, and sunlight rarely falls evenly due to environmental dispersion and reflection. Spherical solar cells, such as those developed by 'Sphelar', can capture light from multiple directions. This feature allows them to be embedded into flexible, curved surfaces, enabling dynamic and adaptable solar designs. Through advanced micro-engineering, these small, round solar cells—each just a few millimeters in diameter—are integrated into an open mesh structure. The mesh used in our design is 98.4% open, ensuring maximum transparency while maintaining efficient energy generation.

Technology:
A tensile canopy system collects rainwater and channels it to the ground using suspended drainage lines. The water is then passed through a layered biological filter and stored in nearby irrigation ponds.

Design:
The canopy surfaces—also used for shading or solar collection—are subtly sloped to guide rainwater into suspended downpipes. At ground level, the water flows through a natural filtration system composed of gravel, sand, activated charcoal, and water-purifying plants. This biological filter removes sediments and contaminants without chemicals. The clean water is directed to irrigation ponds, supporting a closed-loop, sustainable landscape system that aligns with ecological design principles.

Carbon Reduction:
Carbon sequestration combined with a significant reduction of embodied carbon.

Description:
Traditional energy-generating systems, like solar panels, often rely on energy-intensive materials such as steel frames and concrete foundations. As an alternative, living plant structures—such as those made from willow—can be used architecturally to support solar technology. This approach offers multiple benefits: instead of contributing to carbon emissions, trees and plants actively sequester carbon and serve as renewable, regenerative resources. A living structure minimizes energy use and waste from production and transport. In addition, it fosters biodiversity by creating habitats for flora and fauna. Willow structures have deep roots in German cultural and artistic traditions, reflecting a unique fusion of ecological innovation and creative horticulture—unlike the more conventional "Schrebergarten" culture.