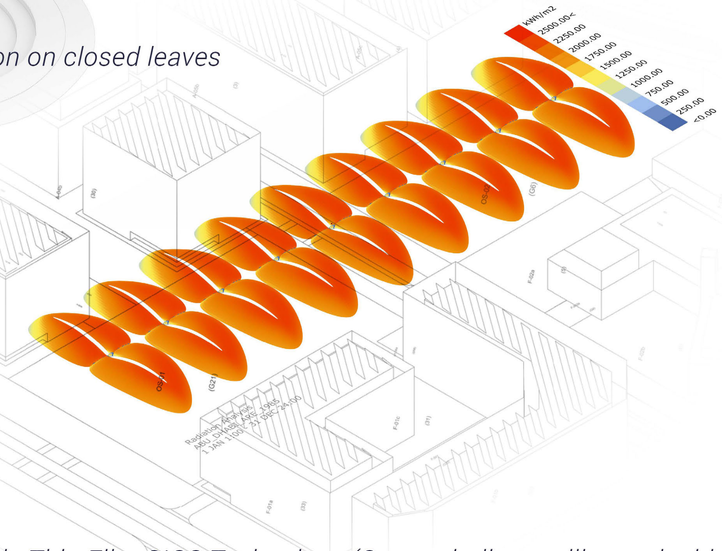
THE SOLAR SEESAW

A Seesaw Balancing Renewable Energy On One End And The Weight Of Dwellers On The Other End

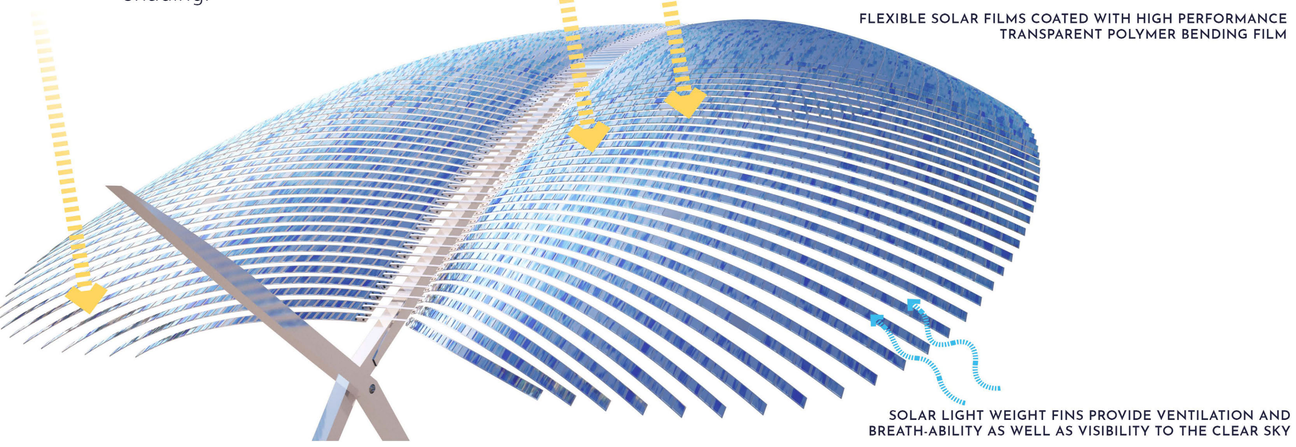
Annual Solar Radiation on closed leaves



High Efficiency Flexible Thin Film CIGS Technology (Copper indium gallium selenide solar cells)

The skin leaves are made from Flexible Solar Modules through High Efficiency Thin Film CIGS Technology ((Copper indium gallium selenide solar cells). The advantages of such a technology is that its Lightweight & flexible, means large-size thin panels maximizing area with a minimal structural support needed. This means less mounting substructure, less installation time and less wiring. It also reduces the overall Balance of System (BoS) cost in relation the the energy produced. Thus Utilizing the high efficient and lightweight materials to constitute a solar leaf minimizes on material use greatly and gives the intended feather shading.

The flexible solar panels can flow and bend thus be mounted only on one side and the other end bend organically by its own weight mimicking naturally palm fronds behavior. In addition, dust proof and water repellent lamination of the foils decreases drastically the need for cleaning routine thus provides power innovative solar application with minimal maintenance.



The Landscape

It's often the most visible aspect of a scheme, shaping impressions and experiences for users, observers and dwellers, making a place unique, more attractive and welcoming as well as projecting masdar's ethos. The project integrates a landscape design rendering the environmental and sustainable vision of masdar, a continuation of the green spine along the city north west axes.

A morphing Landscape experience

Upon the Weight of people sitting on the circular platforms in the kinetic seesaw changes its balance and thus closes the cantilevering leafs to create a pavilion-like spatial configuration. When people underneath move and disperse, the structure restores its balanced situation by lifting up in the air and thus opening like a mast.