SOLAR REEF

The proposal seeks to add value to the existing breakwater, using it as a structural support for the proposal. The idea simulates a reef through 75 half-spheres that capture solar energy through a fresnel lens that concentrates sunlight and routed to a photovoltaic panel that converts this energy into electricity.

To assert spheres a wooden deck, which is drivable in climatic conditions suitable for visitors, who can see through the coastal edge viewpoints, the pier and the city from a new perspective is generated.

3 sizes other than solar concentrators are proposed to simulate the variability in the reefs. These sizes are 20m, 15m and 10m in diameter and will be distributed throughout the breakwater at random, facing south with an inclination of 56 °, which corresponds to the average optimal solar inclination between the winter and summer .

ENVIROMENTAL IMPACT STATEMENT

There is no impact to marine flora and fauna as the proposal is emplaced on the existing breakwater and also floats on water. The solar energy concentrator is so materiality plastic contaminants such as rust caused by corrosion in the case of steel structures is nonexistent.

An estimated 20,000 KW installation produce / year

Materiality of solar concentrators is fiber reinforced plastic of high strength glass, so problems with corrosion are avoided.

2