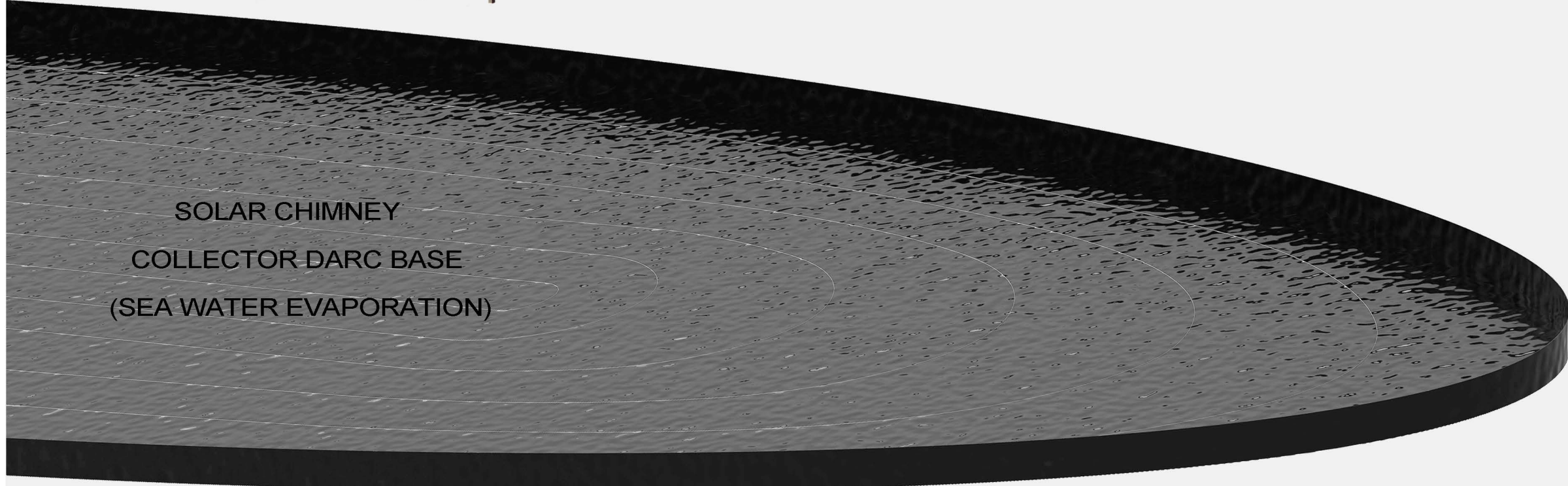
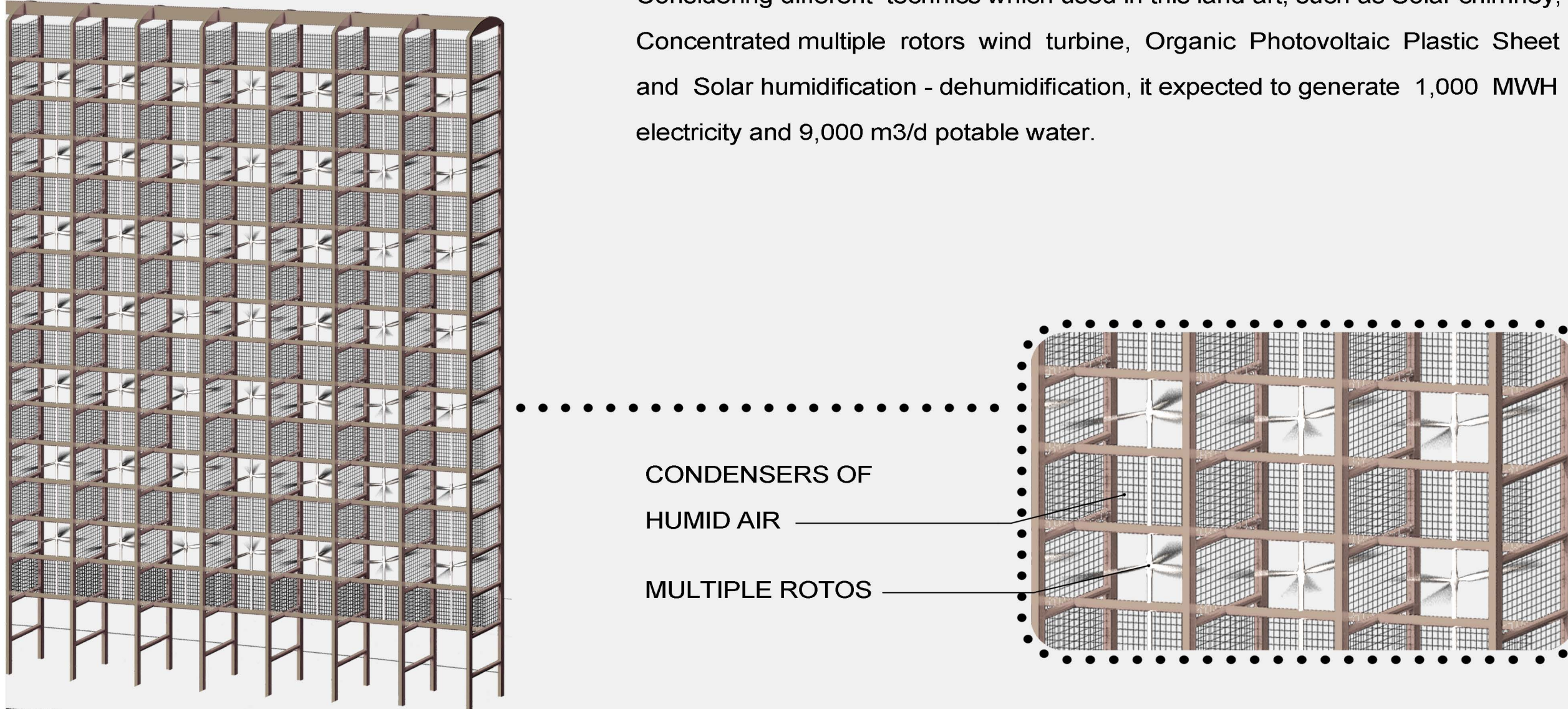
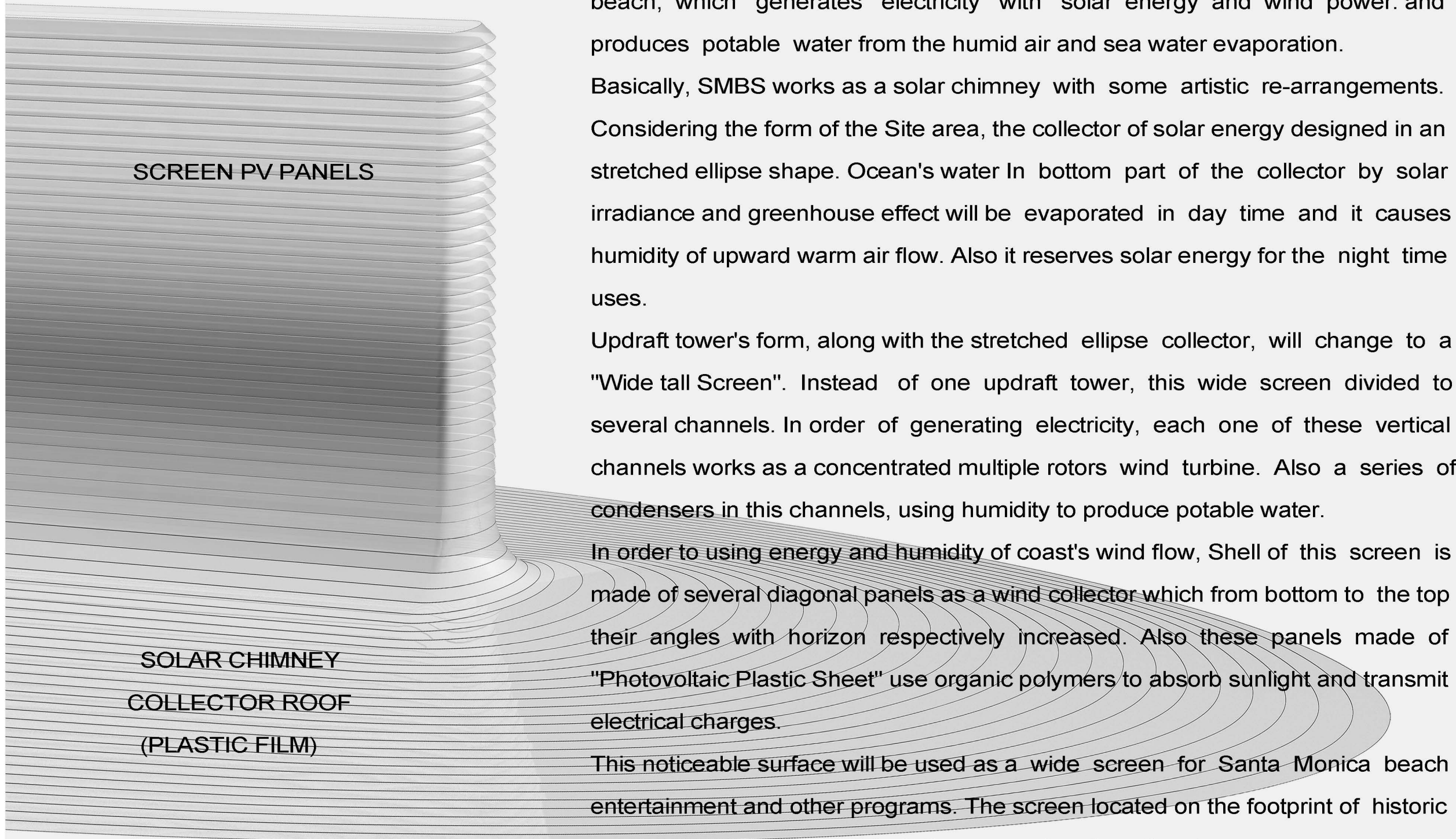


SANTA MONICA'S
BEACH
SCREEN



"Santa Monica's Beach Screen" (SMBS) is an art installation in a large scale to produce electricity and potable water.

In design process of this land art, the following items are considered as the main design criteria:

- 1- Using the site's natural energy and resources
- 2- Considering historical and cultural values of south California

Having humidity and high potential of solar energy and wind power resources in the site, also having a strong background of motion pictures in south California, lead us to design this land art as a remarkable screen for the Santa Monica's beach, which generates electricity with solar energy and wind power. and produces potable water from the humid air and sea water evaporation.

Basically, SMBS works as a solar chimney with some artistic re-arrangements. Considering the form of the Site area, the collector of solar energy designed in an stretched ellipse shape. Ocean's water In bottom part of the collector by solar irradiance and greenhouse effect will be evaporated in day time and it causes humidity of upward warm air flow. Also it reserves solar energy for the night time uses.

Updraft tower's form, along with the stretched ellipse collector, will change to a "Wide tall Screen". Instead of one updraft tower, this wide screen divided to several channels. In order of generating electricity, each one of these vertical channels works as a concentrated multiple rotors wind turbine. Also a series of condensers in this channels, using humidity to produce potable water.

In order to using energy and humidity of coast's wind flow, Shell of this screen is made of several diagonal panels as a wind collector which from bottom to the top their angles with horizon respectively increased. Also these panels made of "Photovoltaic Plastic Sheet" use organic polymers to absorb sunlight and transmit electrical charges.

This noticeable surface will be used as a wide screen for Santa Monica beach entertainment and other programs. The screen located on the footprint of historic breakwater and does not block the ocean view from the pier.

Considering different technics which used in this land art, such as Solar chimney, Concentrated multiple rotors wind turbine, Organic Photovoltaic Plastic Sheet and Solar humidification - dehumidification, it expected to generate 1,000 MWH electricity and 9,000 m3/d potable water.

