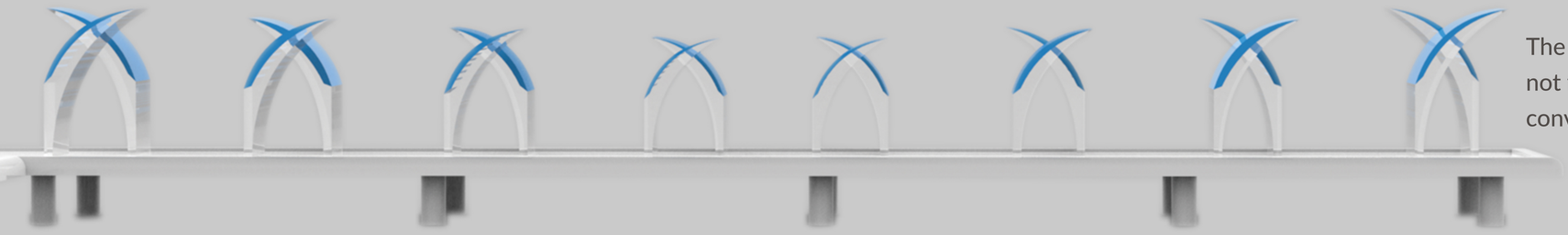
POWAGENO



The structures are placed such that the shadow of one does not fall on the other, thereby maximising the solar energy conversion

Solar panels

Peltier cooled surface

The atmospheric water condenses when they come in contact with the peltier surface and flow through the glass structure into the main tank which is below these structures.

Water pipes and electrical housing

The water collected from the generators are collected in the tank and is transferred. The base also houses the electrical cables through which the power is transmitted to the main sub-station.

Power Water Generator

Powageno's generate power and water. The power is generated through the highly efficient solar cells and water is generated by collecting the water which condenses along the lower sloped surface of the structure. A very little part of the power generated is used to cool the lower curvatured surface of the structures.The cooling is achieved using peltier coolers. The water available in the atmosphere when come in contact with the peltier surfaces, condenses and slides along the surface which in itself is very is spectacular to watch.

Design

Santa Monica pier is an iconic location where the visitor's through their enthusiasm and the nature through it's water front contribute towards the liveliness. Powageno's are de -signed to enhance the existing ambience through their steel reinforced glass structures. This art installation is pragmatic as the technologies involved are proven. The power generation capacity is 600kW. Water is currently generated using peltier cooled surfaces. However they can be replaced by the hydrophilic surfaces which is in the research phase.

Generated

Power generated = 600kW
Water generated = 500*8*2
= 9000 litres per day

Orientation