Environmental impact statement

The solar powered reverse osmosis plant uses gravity in the place of electricity. This allows us to cut down the electricity used in the process by almost eight times. The conventional thermal desalination process consumes 3.32 watt per litre whereas solar powered RO with gravity consumes 0.44 watt per litre. By catering to the peak hour demand, the Hydrophyll ensures the use of renewable energy and reduces the stress on thermal plants. The structure is designed by keeping in mind it’s environmental impact. It uses recycled steel and no carbon concrete or green concrete as the primary materials. A portion of the brine is used to water the vegetation in the park. This reduces the volume of brine that is otherwise let into the sea.

Power consumed to produce water

Components of Hydrophyll

- SunPower SPR-X21-345 r [11,227 panels]
- Brackish water storage tank [12,500 cu.m.]
- Columns as water channels
- Rammed earth dunes as seating
- Brine pit