

## HOW WE GET CLEAN WATER?



SEA WATER Density of Sea Water  $\rho$ = 1.030 kg/m<sup>3</sup> 1 litre of Sea Water = 1.03 kg = 1,030 grWe suppose we have 1.000.000 litres of SEA WATER: 1,000,000 litres = 1,000 m<sup>3</sup>

V= 4  $\pi$  r<sup>3</sup>/ 3 1,000 m<sup>3</sup>= 4  $\pi$  r<sup>3</sup>/ 3 r= 5m 5m would be the radius for one sphere to be filled with 1,000,000 litres of sea water.

Desalination by solar energy is based on the surface of water exposed to solar energy. So want to have a narrow semi-sphere of 30m.



# HOW WE GET ELECTRIC ENERGY?

#### A) WIND ENERGY

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Vertical axis wind turbines make the tentacles shimer in the wind. The energy produced by the movement of those pipes is used for lighting up the sculptures with LED.

#### **B) PEOPLE MOVEMENT**

Piezoelectric effect from people walking on special tiles along the paths that convert to energy.



### HOW WE ENGAGE PEOPLE?

### A) VIEW POINT

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**B) PEOPLE GET ENCOURAGE BECAUSE THEY'RE** THE ONES THAT PRODUCE THE ENERGY. THIS WOULD CREATE A GREAT SENSE OF COMUNITY.

Clean Water Evaporation for clean water (describe)

Waste produce of Brine is sold to Algae growers in San Diego (algae capital of the world.) who can further turn this water into biofuel energy. After Algae growth the brine is furtuer used for road or water softening salt.

Energy: Energy production: Talk about cost Vertical axis wind turbines make the tentacles shimmer in the wind,

Piezoelectric effect from people walking on special tiles that convert to energy

People:

Visible performance to enjoy (access to view)

((Brine usage: Cambridge algal innovation centre Advantages of growing algae with brine water(Algae Biosciences (AlgaeBio) Inc has been focusing on how it can use other water sources other than fresh water for their production systems). In their Coconino (Ariozona) Aquifer they have been testing brine of different saline content. potentially developing and growing a far wider variety of algae strains than would be possible using non-saline water

difficult battery.

Entertainment: interaction/people

Emissions:

Positive environmental impact over its lifetime.

CLEAN WATER Considering we have 30m circula  $A = \pi r^2$  $A = \pi 15^2$   $A = 707 m^2$ We get 4 litres of clean water eve x\_\_\_\_\_707 ----- x=2.828 lit

Volumen = 2.8 m<sup>3</sup> V= 4  $\pi$  r<sup>3</sup>/ 3 r= 0.69m



We use it for: 1) PUMP





2) SELL IT TO THE GRID





-WAVE PIER ACCESS PLAT-FORM

**\_**BRINE

\_CLEAN WATER

COLLECTOR

-VIEW POINT

\_CLEAN WATER

\_STAIR with PI-EZOMETRIC ON

\_VERTICAL AXIS

\_SEA WATER

**\_**BRINE PIPES

PIPES

WIND TURBINES

THREADS

PIPES

\_CLEAN WATER TANK

\_PUMP FOR SEA WATER

\_\_HIGH WATI MARK

\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ LOW WATE MARK

Story 1000KW energy of electrical energy in about 300 pounds of algae. Much more efficient than solar panels, no

ar surface:	SALT 1 litre of Sea Water = 1,03 kg = 1,030 gr
	We suppose we have 1,000,000 litres of SEA WATER per day.
ery m² per day:	Considering that every 1 litre of sea water we get 35 gr of salt (brine), we will get:
tres of clean water	1 litre35 gr
	707x x=24,354 gr = 24.7 kg of brine
3 8.3 m <sup>3</sup> = 4 $\pi$ r <sup>3</sup> / 3	per day
	The volumen of 1Tn of salt is 0.83m <sup>3</sup> so 25kg of salt will be 0.20m <sup>3</sup>







**HEALTH + SUSTAINABILITY + PLEASURE**