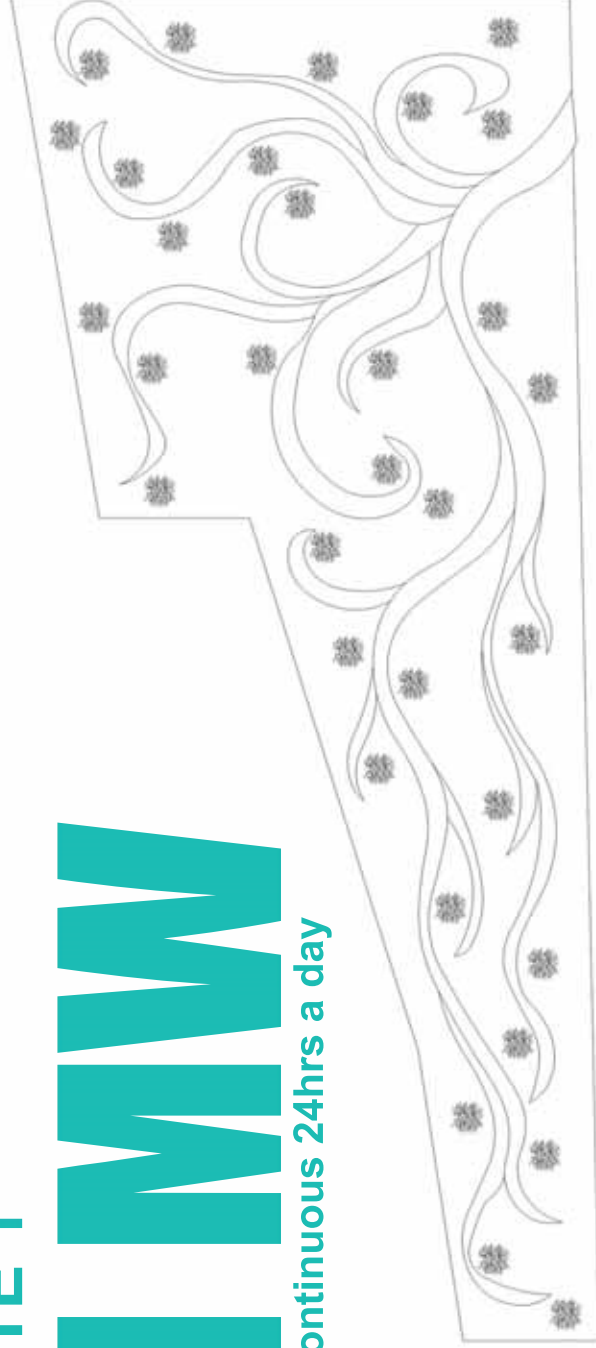




SITE 1

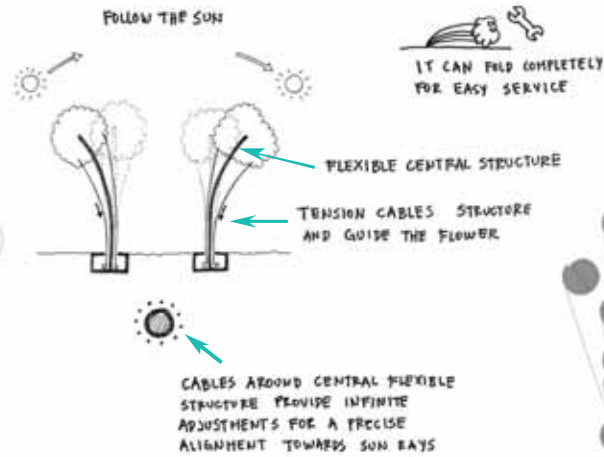
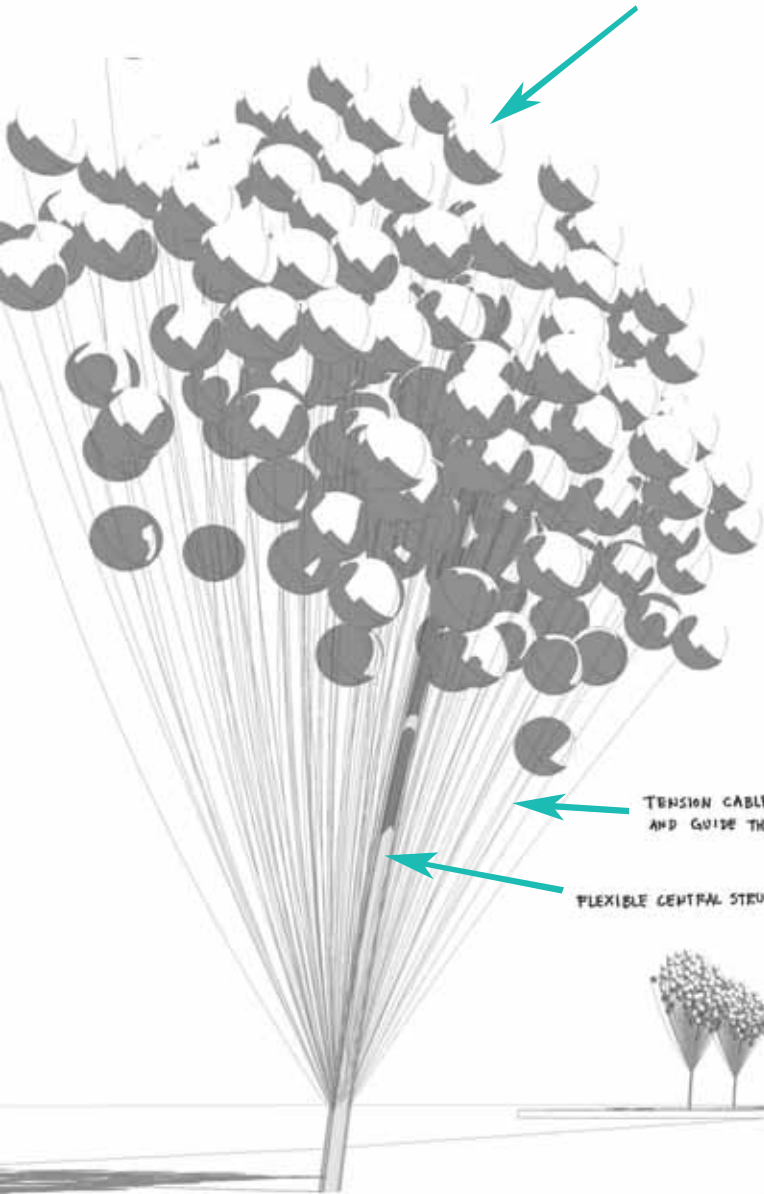
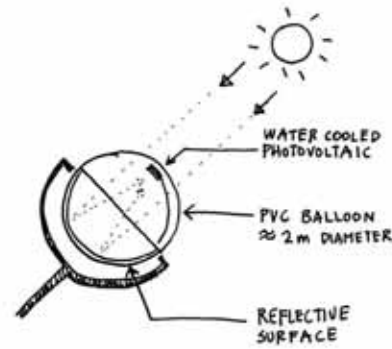
1 MW

continuous 24hrs a day



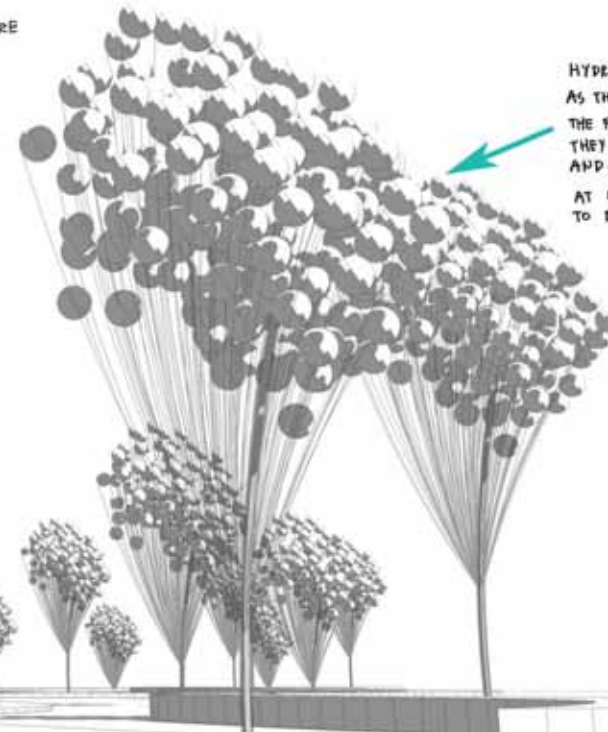
Flowers, as plants in general, capture sunlight during the day, they transform the sunlight energy into chemical energy and by consuming carbon dioxide and water, they generate biomass and oxygen. Many flowers also follow the sun in order to maximize their exposure to the light that sustains their life. In an attempt to mimic nature, we present a system that, like plants and flowers, transforms sunlight into another form of energy that is more suitable for our needs. A giant 'flower' stretches up to the sky with an intelligent body that adapts during the day in order to directly expose its petals to the solar rays.

SOLAR PANELS. AIR FILLED PVC BALLOONS ARE EXTREMELY RESISTANT AND LIGHT. THEIR CONCAVE REFLECTIVE SURFACE MANIPULATE LIGHT TO PRODUCE 400 TIMES MORE ELECTRICITY VIA A WATER COOLED PHOTOVOLTAIC PANEL INSIDE THE BALLOON. AT THE SAME TIME THE TRANSPARENT UPPER SIDE PROTECTS THE PANEL FROM THE ELEMENTS.



TENSION CABLES STRUCTURE AND GUIDE THE FLOWER

FLEXIBLE CENTRAL STRUCTURE



HYDROGEN INFLATABLE TANKS AS THEY INFLATE / DEFLATE THEY GIVE THE FLOWERS AN EVERCHANGING SHAPE, THEY BECOME A POETIC REFERENCE TO OPENING AND CLOSING FLOWERS

AT LOW PRESSURE THEY ARE CHEAP TO BUILD AND POSE NO SAFETY RISKS



FILL DURING THE DAY WITH NEW HYDROGEN

EMPTY IN THE MORNING AFTER NIGHT ELECTRICITY PRODUCTION

SITE 1	
1 MW continuous 24 Hours a day	
Total Power	1073 kW
Quantity of SUNFLOWERS for SITE 1	30 SUNFLOWER
Solar Generator Petals @ SUNFLOWER	100 Balloons
Hydrogen Tank Petals @ SUNFLOWER	50 Balloons
SUNFLOWER Power daytime	36 kW
Electricity produced by SUNFLOWER / day	1518 kWh
Electricity sent to the grid / Day @ SUNFLOWER	251 kWh
Electricity sent to the Hydrogen Production / Day @ SUNFLOWER	1267 kWh
Hydrogen produced SUNFLOWER @day	26 Kg
Hydrogen Volume Produced (10bar @ 40°C)	32759 L
Average Pressure in Hydrogen tanks (50 tanks)	1.6 Bar
SUNFLOWER Power night-time	36 kW
Electricity produced at night @SUNFLOWER	608 kWh
Electricity sent to the grid / Night @ SUNFLOWER	608 kWh
Water Tank Volume for Hydrogen Production @ SUNFLOWER	1473 L
Electrolyser volume @ SUNFLOWER	20.3 m3
Electrolyser floor area @ SUNFLOWER	11 m2
Fuel Cell Volume @SUNFLOWER	0.3 m3

