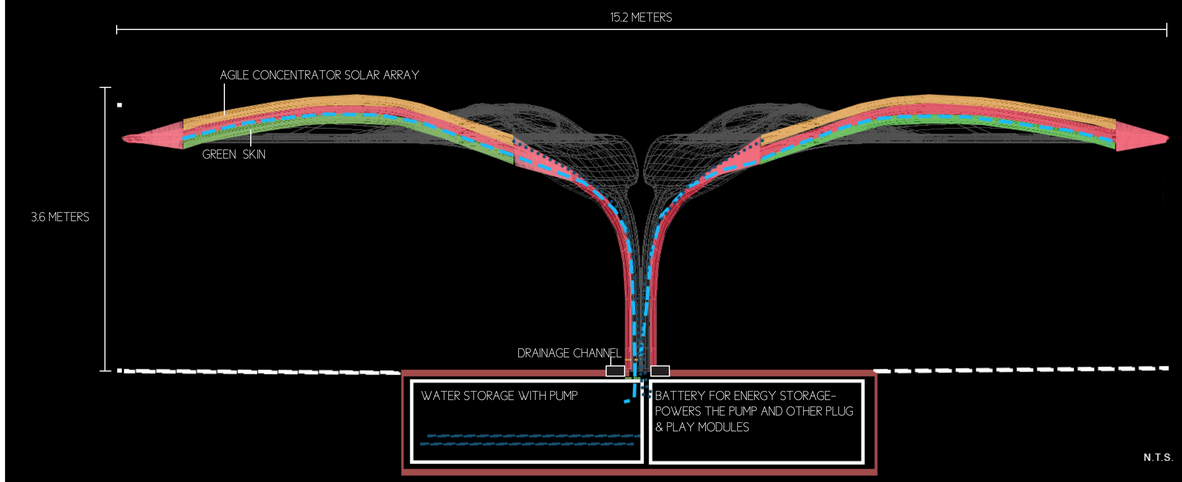
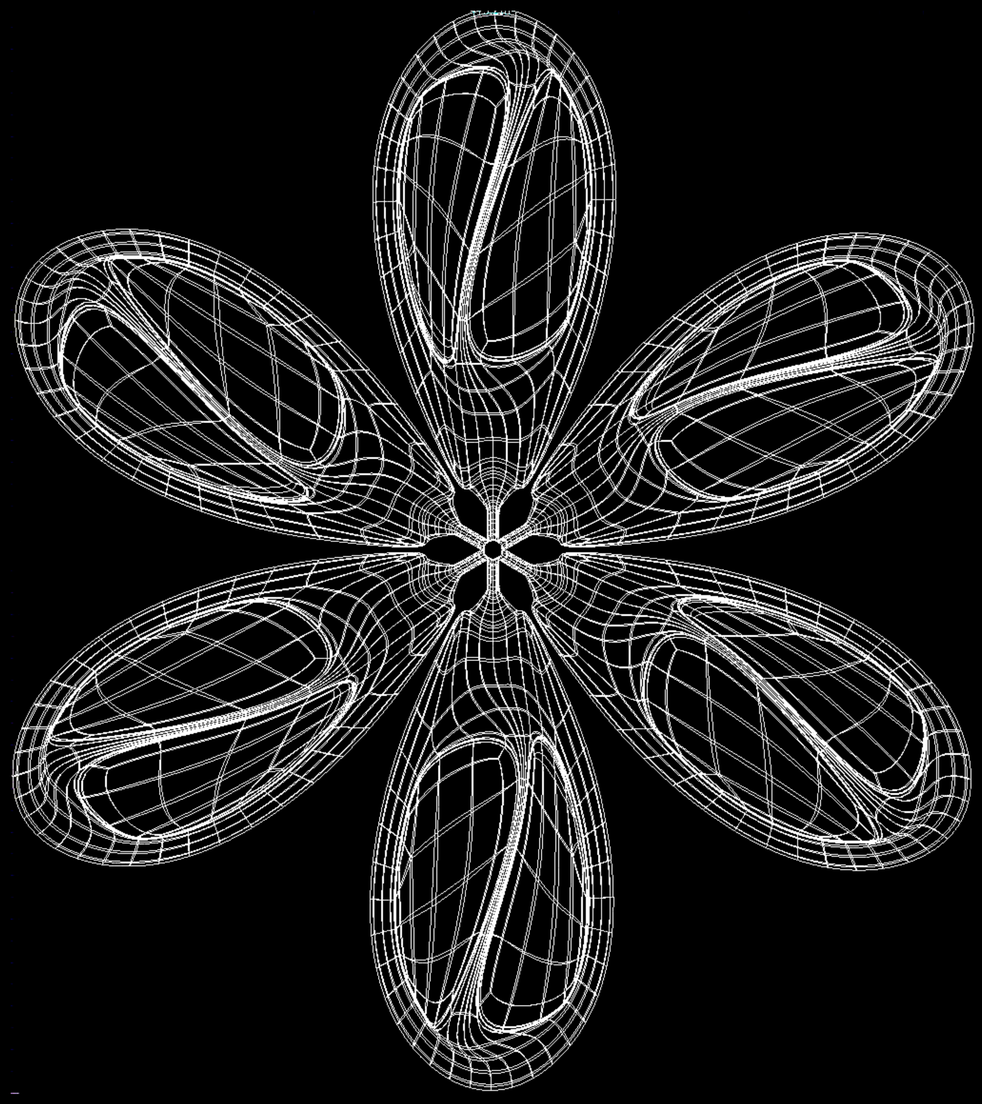
SCHEMATIC DRAWINGS



SECTION



PLAN

PERFORMANCE

10,200 MWh/ yr
ENERGY PRODUCED

40,600 LITERS/ yr
WATER CONSERVED AND USED

8000 kg/yr
FOOD PRODUCTION

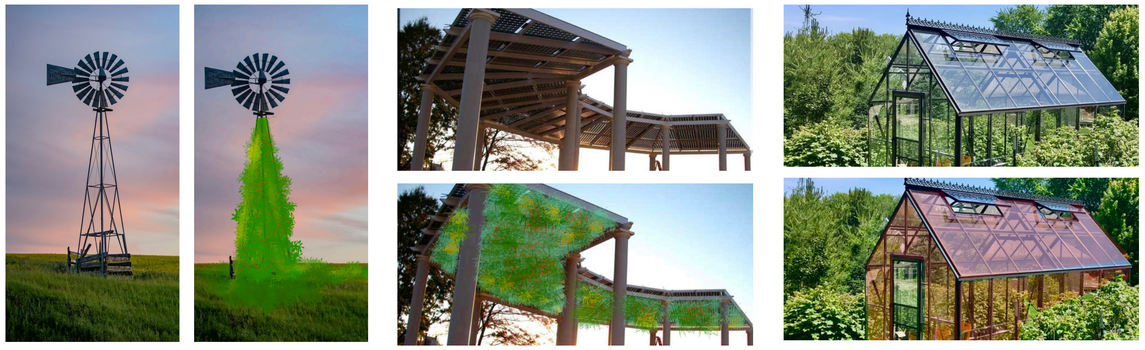
2700 kg/yr
LEAF/STEM BIOMASS PRODUCTION

10 Years
TO CARBON NEUTRALITY

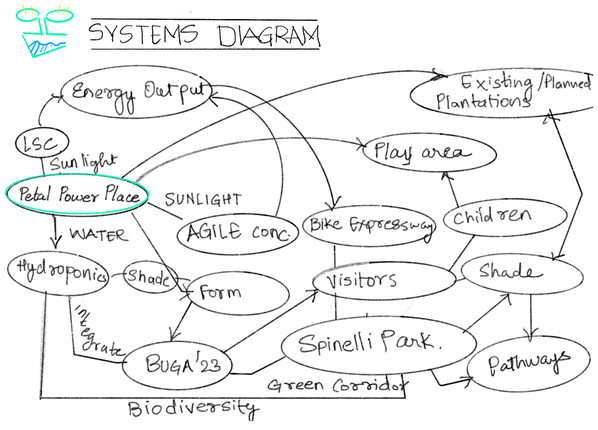
75,000 USD
APPROX. COST PER UNIT

Apart from this, the sculpture itself through its features supports 13 out of the 17 goals of the UN including Zero hunger, Good health and well-being, Quality education, clean water and sanitation, Affordable and clean energy, Decent work and economic growth, Industry innovation and infrastructure, Sustainable cities and communities, Responsible consumption and production, Climate Action, Life on land, Peace justice and strong institutions and Partnerships for the goals.

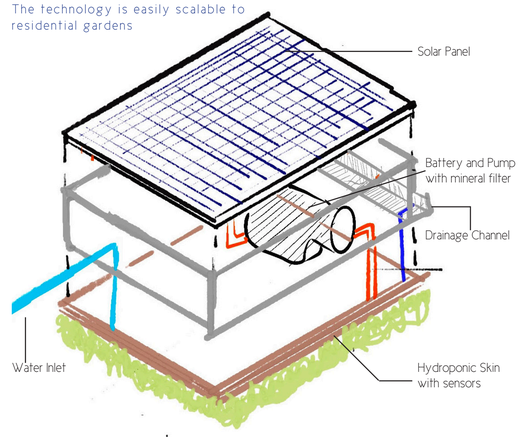
PROCESS



BEFORE/AFTER VISUALS OF REAL WORLD APPLICATIONS- MAKING USE OF THE EXISTING INFRASTRUCTURE



The technology is easily scalable to residential gardens



In the light of the horticulture event BUGA '23, the design explores a form of a blooming flower. A flower is universally a symbol of beauty. Integrating renewable energy in the form of a flower symbolizes the beauty of change- the change in our approach, life-styles and environments that will be shaped by the process of global energy transition.

The form of a flower lends an opportunity to exhibit the innovative technologies to showcase biophilic renewable energy forms that are organic in addition to fostering water conservation.

Petal Power Place stems from a single idea, and explores two models that emerged from two different approaches of making use of existing structures for Agrivoltaics:

MODEL 1 is a showcase for incorporating solar technology where shade structures for farming exists- for eg. Greenhouses could replace glass or polymer sheet envelopes with the LSC to produce energy.

MODEL 2 is a showcase for incorporating productive urban landscape/ energy crops on the structures that support energy technologies. For Example, the structure supporting a wind turbine, or the parking structure supporting the solar panels can provide infrastructure for landscaping. Both the sculptures boast a 15.2 meter diameter flower canopy that sits 3.6 meters above the ground. All 34 units produce 10,200 MWh energy per year.