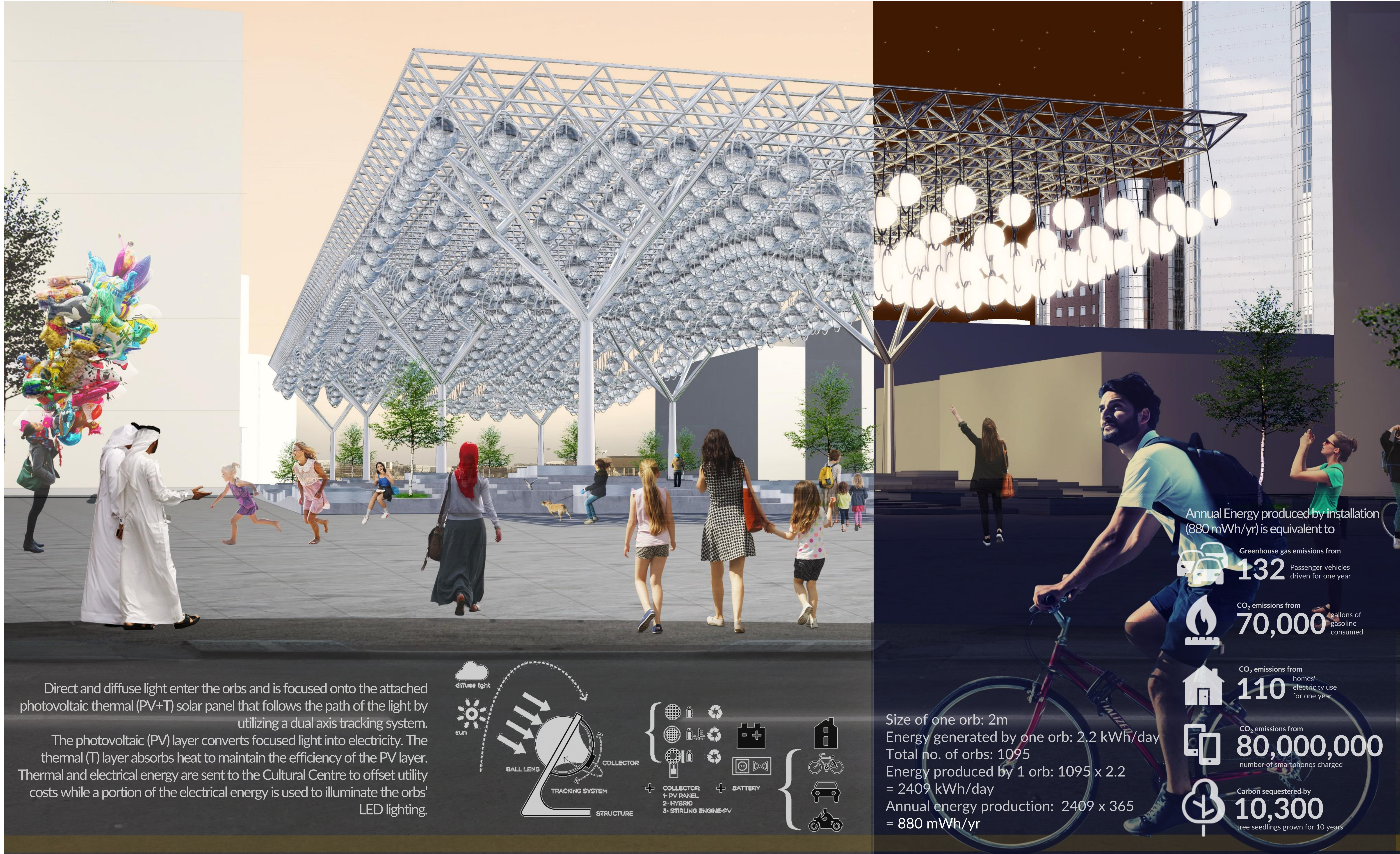
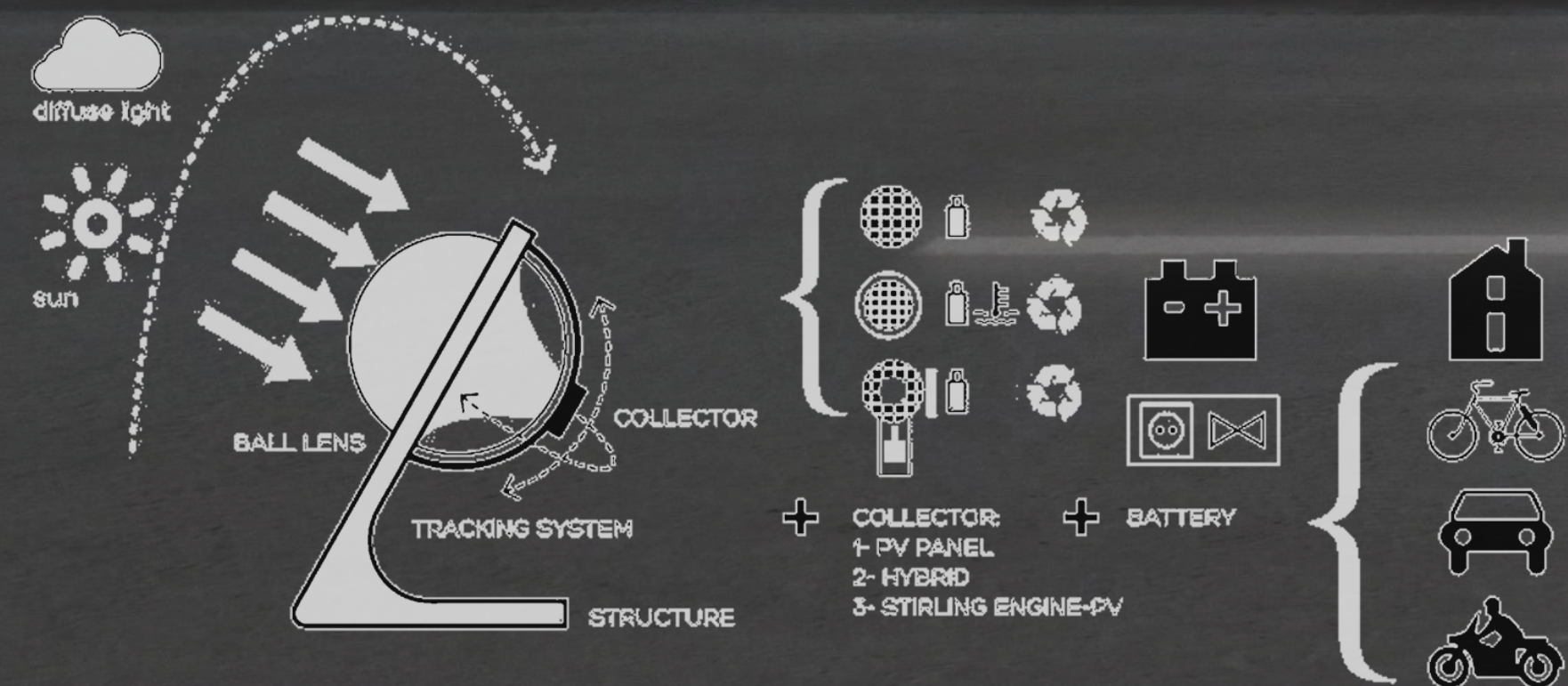


This sensor actuated solar spheres are cheap, but energy efficient and controlled by individual motors that can lift or push them down based maximum energy output. The spheres are 2 m in diameter and can generate energy out 2KW/ day. These spheres are self illuminating at night, rendering the sky with a thousand full moons hence the name INARA. These spheres are placed on a space frame of 3.5 x 3.5 sqm which is also used as the dimension for the landscape grid. A significant number of these spatial grids are converted into landscape planters for native plant species. A few more of those pixels are combine to create a vast water body that lends a poetic definition to this surreal space.

INARA - BUBBLE DUNES



Direct and diffuse light enter the orbs and is focused onto the attached photovoltaic thermal (PV+T) solar panel that follows the path of the light by utilizing a dual axis tracking system. The photovoltaic (PV) layer converts focused light into electricity. The thermal (T) layer absorbs heat to maintain the efficiency of the PV layer. Thermal and electrical energy are sent to the Cultural Centre to offset utility costs while a portion of the electrical energy is used to illuminate the orbs' LED lighting.



Size of one orb: 2m
 Energy generated by one orb: 2.2 kWh/day
 Total no. of orbs: 1095
 Energy produced by 1 orb: 1095 x 2.2
 = 2409 kWh/day
 Annual energy production: 2409 x 365
 = 880 mWh/yr

Annual Energy produced by installation (880 mWh/yr) is equivalent to

- Greenhouse gas emissions from 132 Passenger vehicles driven for one year
- CO₂ emissions from 70,000 gallons of gasoline consumed
- CO₂ emissions from 110 homes' electricity use for one year
- CO₂ emissions from 80,000,000 number of smartphones charged
- Carbon sequestered by 10,300 tree seedlings grown for 10 years