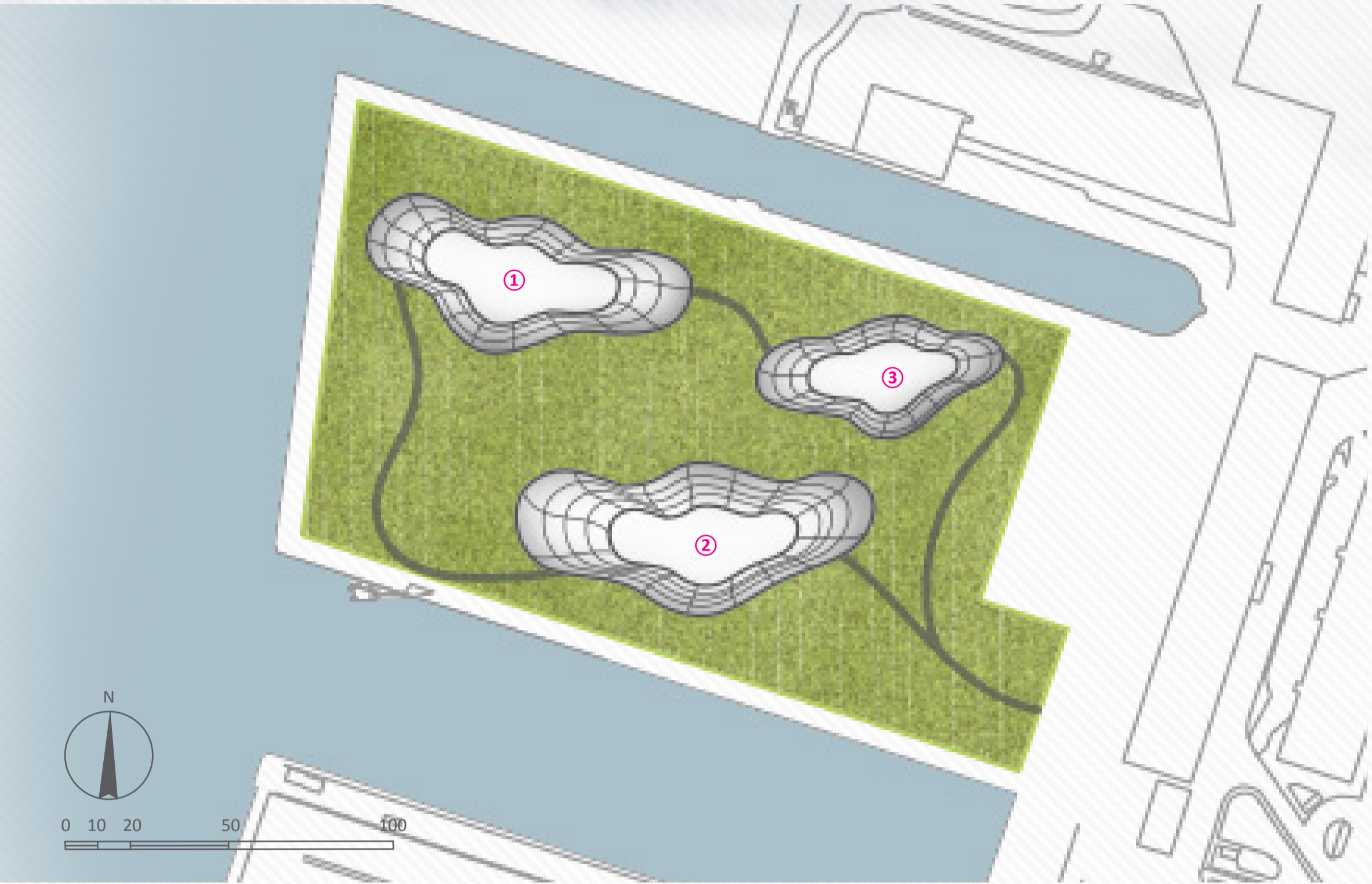
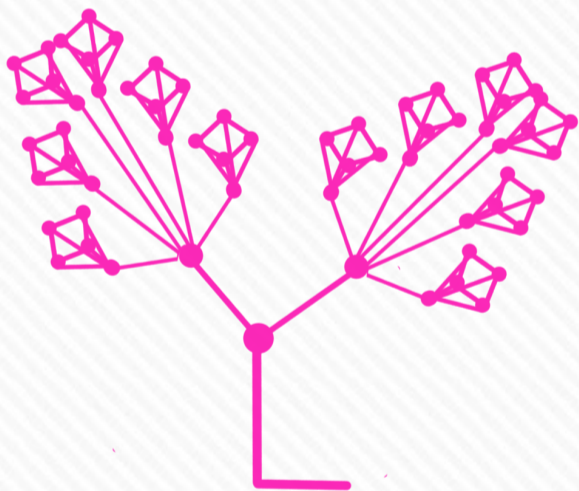


BREATHINGFOAM

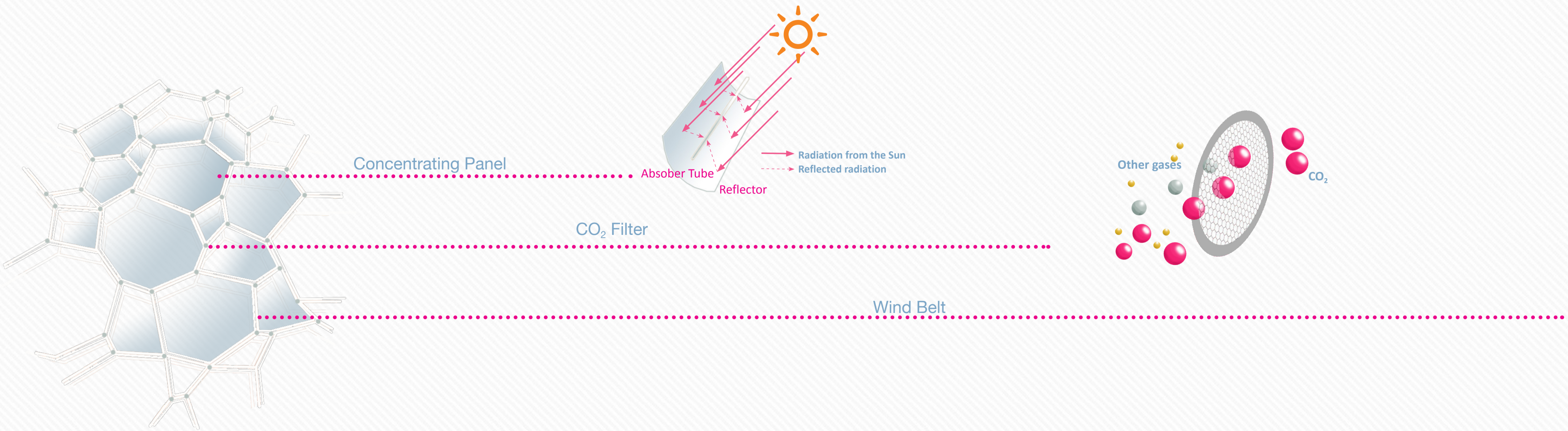
Master Plan



Structure



The electronic system for the Breathing Foam consists of three individual systems: solar power generator system, wind power generator system, and CO₂ reduction system. In the day, the Breathing Foam's structure will be powered and stretched by themselves to orient to the sun and capture wind power. Besides, the membranes which intersect in windbelts will filter CO₂, and a dashboard on the post will show how much CO₂ has been filtered by this system. The top of the canopy would be installed with solar panels which are used to capture the solar power. In the night, the structures shrink and continue capturing the wind power and filter CO₂.



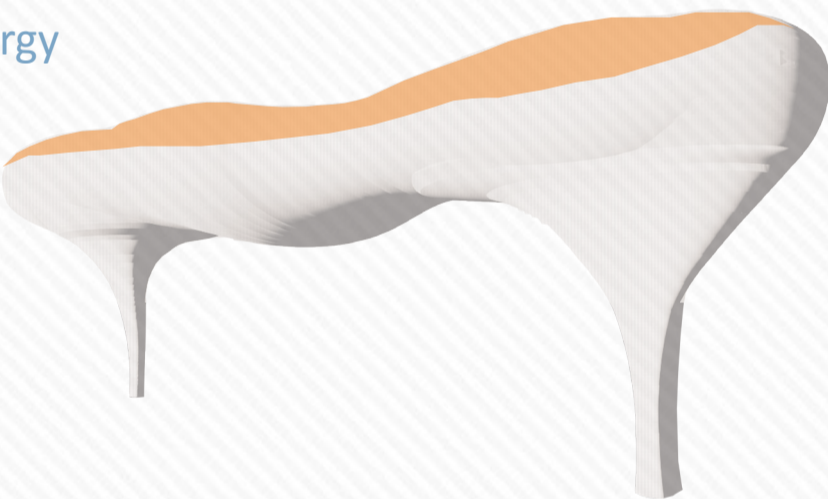
Wind Analysis



Energy Technology

Solar Power: Photovoltaic - Concentrated PV (CPV)

Technology Reference:
LAGI-A Field Guide to Renewable Energy

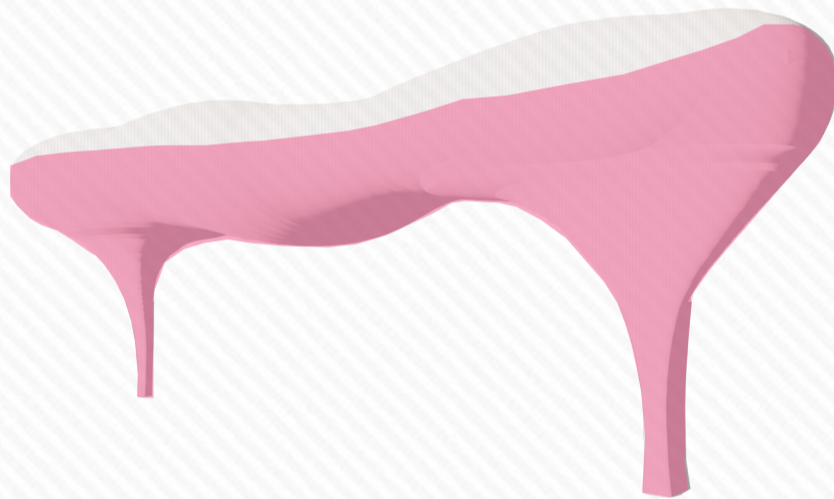


The CPV is a device that 'employs photovoltaic cells to concentrate sunlight and directs a manifold beam onto a smaller area solar cell specifically to handle the greater energy and heat.'

This device will satisfy the operational power on site.

Wind Power: Windbelt™

Technology Reference:
Humdinger Wind Energy, LLC
<http://www.humdingerwind.com/#/home/>



The Windbelt is the main structure of the design. The aluminum frame of each device is assembled into a hexagonal unit shown as above. The function of the unit is to wind harvest device that converts aeroelastic flutter into electricity. Power generated by this device will support most part of the lighting on site.

