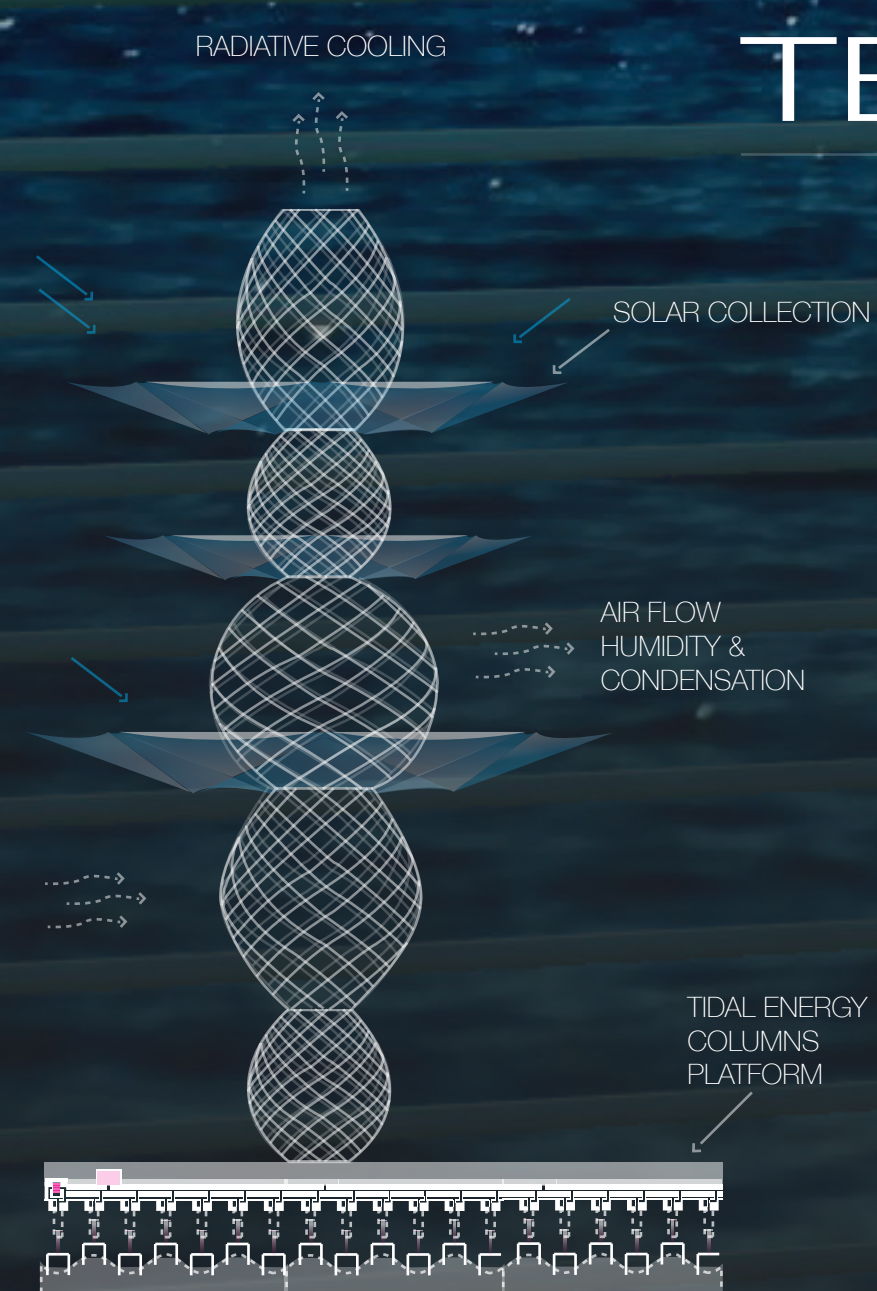


## TECHNOLOGY

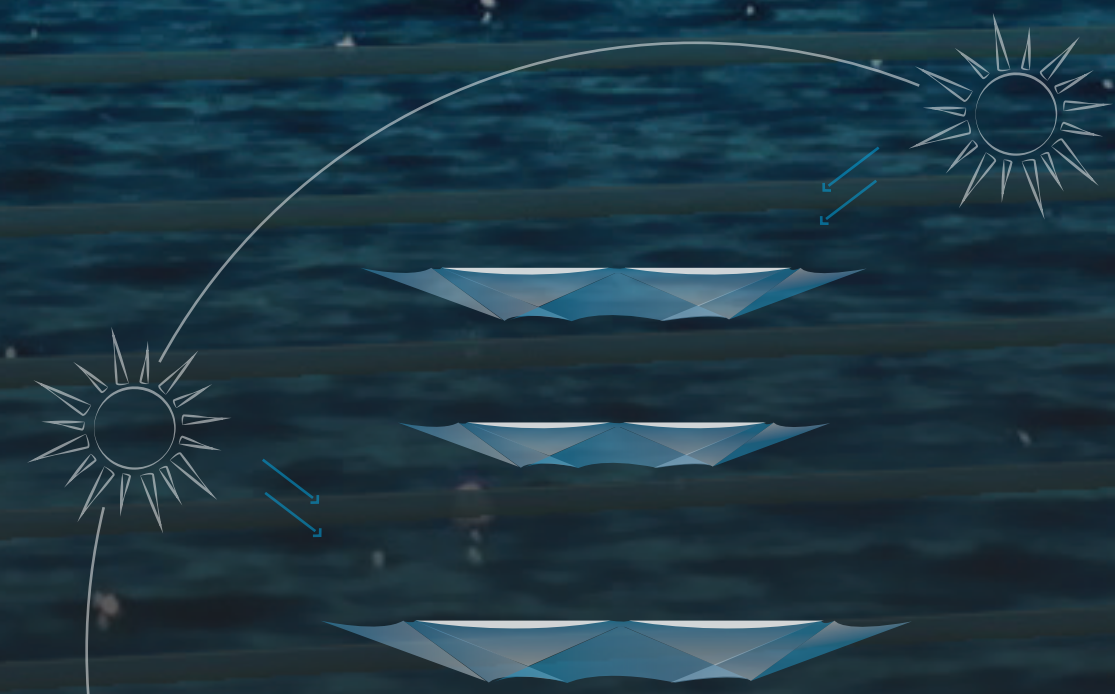


This installation is designed to accommodate both energy and water collection for the Santa Monica area. The installation's home out beyond the breakwater will be tethered to the ocean floor and float on top of the waters surface so that it doesn't disrupt the natural motion of the waves into the beach area. The structure is meant to be all weather and can hold in any condition while still harvesting water and or energy.

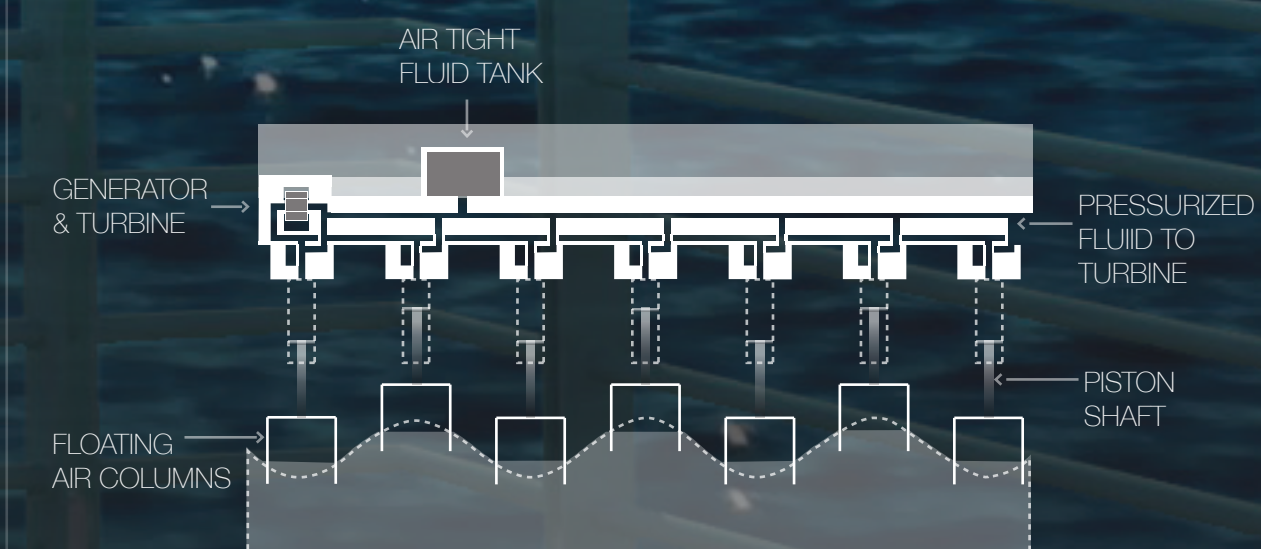
Total energy collection of the project is 6,300 megawatts annually. With research in 2014 stating an average United States utility customer consumes 10,900 kilowatts per year, the installation can provide power to 576 homes. This project is also constructed based off need and cost. The kit of parts construction concept allows for whatever height and variance of figure sections and photovoltaic skirt array cells necessary to achieve the desired water and energy collection, which allows for flexibility based on budget. The goal is to achieve a design that encompasses the character of Santa Monica and is flexible based off the needs of the city.

“ LIVE IN THE SUNSHINE. ... SWIM IN THE SEA. ... DRINK THE WILD AIR. ”

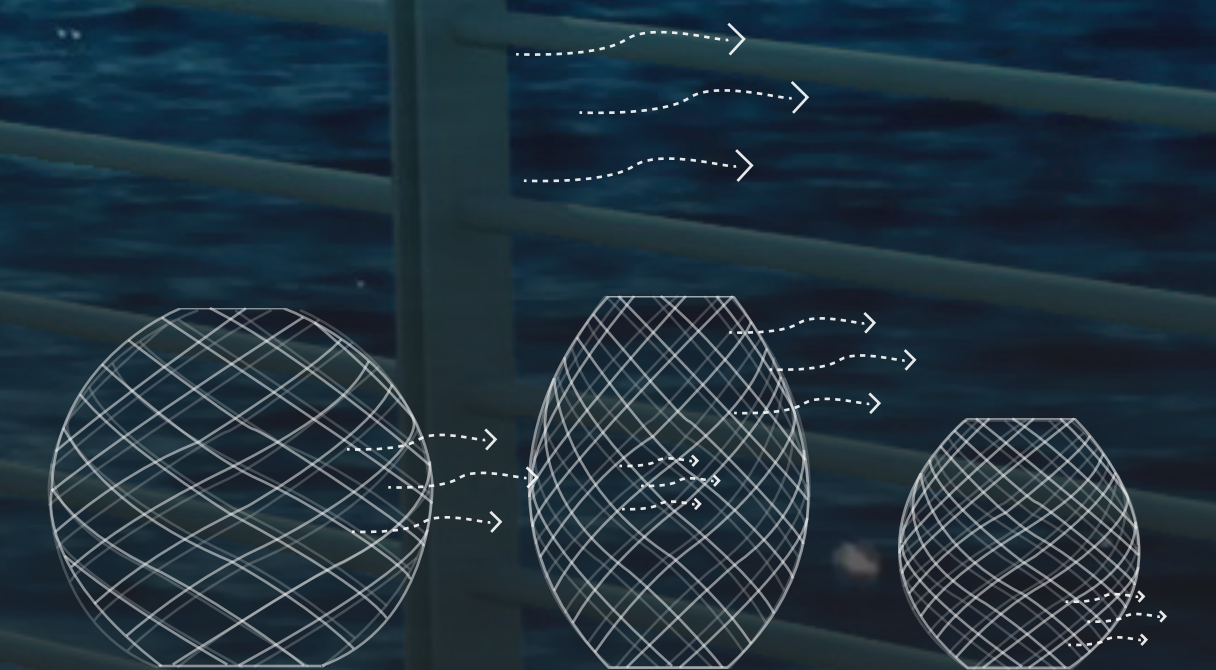
-EMERSON



Specially designed printed photovoltaic cell arrays will be placed around the concaving midsections of the figures to signify to onlookers the dancers skirt and flare of the dance movements of an age past but not forgotten. The PV cells have been spaced out between the mesh segments to receive max sunlight and take advantage of the 300 days of sunshine that Santa Monica receives annually.



The platform is a wave energy extractor made up of oscillating water columns (OWC) allowing the entire structure to float on top of the water. The columns alternate rising and falling with the waves and create fluid pressure that can be pushed to a generator and a turbine to create energy. The wave energy extractor is teathered to the sea bed just before the breakwater and transfers energy to the city grid.



Each dancing figure is composed of a low cost polyethylene or polypropylene mesh. The mesh material collects water droplets from the marine layer and low forming stratus clouds and carries them down to the base of the system which contains a reverse osmosis system built into the platform that can transfer out clean drinking water. The mesh has a coating that helps the water quickly travel down the system to the base before heavy winds can push the droplets out of the mesh.