**Experience**

The Loop is an energy-harvesting landscape: a symbolic expression of the endless and consistent embodied energy that Santa Monica waters provide. It also serves as an extension to the already active and vibrant athletic and entertainment culture. The main goal is to bring both locals and visitors to the site by providing amenities such as interactive spaces, running and bicycle track, venue spaces, and additional vantage points.

Wave energy harvesting strategy has shown great potential for an alternative renewable energy. Being a consistent source of energy, The Loop incorporates buoy technology for energy harvesting. The Loop offers a glimpse of what the technology is capable of and how it works. Wave energy harvesting is still in research and development phase, which would make this a low-cost investment as well as to test a finished prototype for the city of Santa Monica.

The Loop serves the visitors by extending the pier into the energy-harvesting center. As a tourist, they get the chance to learn about the advantages of wave energy harvesting over conventional methods. Moreover, the buoys work continuously to bring water to the deck which would change depending on the intensity of the waves.

The landscape design invites locals, including runners and cyclist to experience Santa Monica from a new perspective. Visual connection is established between the occupants and the technology by showing glimpses of the system underneath the structure. The buoys can be viewed at various locations of the site to provide a sense of contemplation while educating the public. Moreover, the water features within the site is a visual representation of how much energy is being produced by the waves.

The Loop consists of floating decks that are actuated by the force of the waves. The primary structure that ties the platforms together consists of PTFE-woven textile, enabling human interaction with the membrane, further enhancing the wave energy contemplation factor. The pier structure consists of steel piles following the same language as the existing pier at Santa Monica.

In the end, the loop brings in a new daily routine for the locals of Santa Monica, encouraging them to visit the waterfront; which ties in to their daytime high-adrenaline culture and nighttime notion of performance. With the growing number of residents visiting The Loop, the projected amount of visitors is expected to rise proportionately, raising people’s awareness on environmental stress in the area and a newer, greener form of energy generation.

**Environmental Impact**

According to an existing Australian wave energy harvesting research company, CETO, we estimate one 6-meter buoy to produce as much as 50-80 kWh of energy. The Loop consists of 26 buoys, hence it has the capacity of producing a minimum of 1,300 kWh. The minimum annual energy generation with an average of 1-meter-height wave is 11,388,000 kWh/year. A typical Santa Monica household consumes approximately 10,932 kWh/year. As a result, the Loop has the power to supply energy to 1,040 homes when operated continuously.