## **Energy Land**

Nowadays, considering the issues raised by climate change, people all over the world pay careful attention to global warming and make efforts to combat climate change with renewable energy usage, investment, and design. Wind power is one of the main renewable energy in Australia.

"Wind power is a rapidly expanding mode of renewable energy production with an average annual rate of growth in installed capacity of 35% over the five years up to 2011."<sup>1</sup> The average annual rate of growth for wind power is 35% over the five years until 2011, this renewable energy is rapidly expanding mode right now. Solar energy has great development potential in Australia as well. "As of March 2018, Australia had over 7,803 MW of installed photovoltaic (PV) solar power, of which 1,651 MW were installed in the preceding 12 months."<sup>2</sup>

**Energy Land** is a public art project which will create energy storage for the city, an education program for children, commercial cooperation connections for businesses, and a vibrant attraction for international tourism.

Considering the high production potential of renewable energy, including **wind energy and solar energy**, at the proposal site, energy crossing will create the **Energy Canopy** using solar panels, from which 324,000 annual kwh (Kilowatt-hours) can be generated – much more than traditional solar panels, which only collect sun energy, can produce. The Energy Canopy uses solar panels as structure and shelter for the outdoor car parking area, and there is a wayfinding system to direct people's circulation within the site. The Energy Canopy creates 2 floors (3 levels) of space. It enables visitors to be more playful and have more exploration experiences.

As the floral emblem of Victoria is heath, Energy Land use health shape wind generation installation to generate electricity. Energy Land also contains an **Energy Vertical Wall** with a **Wind Generation Installation**, from which 259,200 annual kwh (Kilowatt-hours) can be generated. When the wind blows on the wind wall, the plastic flower shape rotates and produces electricity, and the installation lights up. The Energy Vertical Wall will be located on the riverfront as well (secondary boundary). Given the surrounding clubs, restaurants, and beach area, the Energy Vertical Wall will contribute to commercial activities near the proposal site. In addition, the Energy Vertical Wall creates an energy lighting corridor to connect the St Kilda Triangle (primary boundary), Jacka Boulevard and The Shore (secondary boundary). The Energy Lighting Corridor helps to direct people through the space, especially at night.

Energy Land also contains the **Energy Floor**, which is generated by **human power**. The Energy Floor welcomes people to jump and step on it in order to generate energy. With 20,000 people's energy, it can produce 298,300 annual kwh (Kilowatt-hours)

<sup>&</sup>lt;sup>1</sup> http://www.asiawind.org/research-data/market-overview/australia/

<sup>&</sup>lt;sup>2</sup> "Australian PV market since April 2001