**The Path of Karma**

*"Life is like a Boomerang, the more good you throw out, the more you receive in return…"*

**Concept:**

Karma refers to the spiritual principle of cause and effect where intent and actions of an individual (cause) influence the future of that individual (effect). Good intent and good deed contribute to good karma and future happiness, while bad intent and bad deed contribute to bad karma and future suffering.

Boomerangs are a symbol of karma and remind us that whatever we do it comes back to ourselves. When you throw a boomerang, it spins and spins, and finally it comes back in your own hands. This is also about nature. If we care for it, it is beneficial for us, and if we ignore it, it will be a disadvantage. Not only a disadvantage for us, but also for our children, and their children, and whoever will live on this planet after us. So it's clearly our duty to save the nature in any way we can. Using clean and renewable energy is one way to save the nature. Thus this symbol can be a great inspiration for visitors and remind them to care about the planet they live in…

Since the boomerang spins on a triangle route as we throw it, this sculpture shows the route of a spinning boomerang. It shows a number of triangles that are connected to each other, and if we look at the installation from a far distance, it seems like a boomerang turning and moving on its triangle route. Also this triangle shape can be relevant to the sites name too (St. Kilda Triangle)!

**History:**

The boomerang is a symbol of the history of Australians. A boomerang is a thrown tool, typically constructed as a flat [airfoil](https://en.wikipedia.org/wiki/Airfoil), which is designed to spin about an axis perpendicular to the direction of its flight. A returning boomerang is designed to return to the thrower. It is well known as a weapon used by [Indigenous Australians](https://en.wikipedia.org/wiki/Indigenous_Australians) for hunting.

Boomerangs have been historically used for [hunting](https://en.wikipedia.org/wiki/Hunting_in_Australia), as well as a sport, and entertainment. They are commonly thought of as an [Australian](https://en.wikipedia.org/wiki/Australia) icon, and come in various shapes and sizes.

The boomerang represents Indigenous people 60,000-year links to this land, because they’ve been used for as long as Indigenous nations have thrived on the Australian continent. Boomerangs play a key role in Aboriginal mythology, known as The Dreaming — mythical characters are said to have shaped the hills and valleys and rivers of the landscape by throwing the sticks around in the hunt.

Evidence of how boomerangs were used can be found in 20,000-year-old rock paintings in the remote Kimberley region of north-west Western Australia, and a 10,000-year-old boomerang was even discovered in a peat bog in South Australia in 1973.

Today, boomerangs are mostly used for recreation.

**Technology:**

Solar systems directly transform the solar light into electrical energy by using the photovoltaic effect. Solar energy is the renewable energy source with the highest development during last years and as new and more efficient solar technologies emerge, this incredible source of energy will be the energy of the future.

But as we now photovoltaic panels don't work in cloudy weather. The same problem is with the wind turbines, as they don't work in sunny days when there is no wind. But because Melbourne is a city that has both sunny and windy days, we decided to use both technologies for the generator.

The Boomerangs are photovoltaic solar generators. They also spin around the metal axis. When the weather is sunny, boomerangs get solar energy. When the wind blows, the boomerangs spin about the metal axis, like a wind turbine, and the sculpture receives the wind energy. So it is a combination of solar and wind generators, and it can generate energy at any time.

Energy is transmitted through the metal path to its storage location. The storage location is considered to be in the underground level were the parking is. That is for the safety of the visitors.

LED lights are located on the Boomerangs in different colors and maps causing it to glow softly in the night, a constant reminder of the energy generated on site.

The structure of the statue can be moved and connected in different shapes. The metal path is placed on the ground in such a way that it alone can hold the sculpture's weight without any help.

The Project is adaptive with the Port Philip city councils master plan. The parking can stay in the underground level. This structure is not a solid volume and so it does not block the view.

The Boomerangs represent one more step in our search for sustainable, feasible and beautiful ways of producing clean, renewable and environmentally friendly energy. They remind us to preserve nature for our descendants…

**ENVIRONMENTAL IMPACT**:

The area of each solar panel is 6m2 (7m length and 3m height).The design can accommodate any manufacturers' panels. For this submission we propose the Sunpower brand panels which are one of the most efficient panels commercially available. They do not have the lowest price but we feel in this context the energy benefit is the right choice. These 330w boomerang shaped panels, could be made from recycled plastic. The angle of the panel relative to the sun is set so that the solar energy is most consumed in this region (38.5 degrees northward is the best). About 120 panels are placed in this installation which can generate about 200MWh energy in a year. The wind energy generated by the boomerangs, which are placed in different heights and positions is about 160MWh energy in a year. The metal path is also made of renewable steel.

As we used solar and wind energy made by recycled material to generate the amount of needed energy for the site, there will be no greenhouse gas produced at all. Also the project is CO2 free and has minimal impact on the landfill.