



Solar Triangle

ENVIRONMENTAL IMPACT SUMMARY

It is essential to consider the potential disturbances to the local environment and ecosystem, by any addition or implementation of the technology to the project site. The site occupies a natural habitat, which is no less important to the community's image. The habitat consists of a variety of life forms from animals to insects, which can be affected by surrounding artificial structures.

This project is basically designed to produce clean energy by using strong solar power at the site. It works as a solar radiation receiver that consists of a major multi-colour solar panel roof groups and a range of integrated Solar Palm trees.

The panels itself consists of Silicon which consequences high efficient electricity production in long turn. It is a promising zero greenhouse gas emission material that will not generate any form of environmental pollution. And will become one of the backbone of the Victoria's Net zero greenhouse gas emissions for 2050.

Renewable energy components	Materials	Dimensions
Main architecture	Coloured building integrated photovoltaic(BIPV) panels	11240m ²
Solar Palm Tree	Sunpower folding and flexible solar panel	4m x 2m x 0.0045m x 8 (unit/tree)
	Recyclable steel trunk	12m x 1.5m
Battery	Lithium ion battery	117.7m ²

The primary structure is built majorly by steel to ensure the stability. Other construction materials such as steel reinforced concrete, are recyclable and have no greenhouse gas emission during the function time.

However, considering the project site is located near the sea shore, strategies to mitigate foreseeable issues are:

- 1) An online monitoring electricity performance system should be involved to make sure all the panel models are working properly;
- 2) it is suggested to install bird-friendly devices especially at the top the Palm Tree structure to avoid birds' nesting, which may lead to blockage of the rain water collection system, or rather just provide nesting space for birds;
- 3) Anti-rusting methods should be considered to prevent exposed steel components from corrosion in high salinity environment.