

SOLAR CLOUD

Design Concept

'Solar Cloud' is conceived as a land art energy generator born from complex urban context and new climate challenge. Fluid dynamics was taken as the conceptual and technical basis prototyping a new type of urban space, which is not only open to the public, but also functioned as members of the energy infrastructure in the city. The exploration of fluid dynamics as a digital tool forming this particular land art connects the re-generation of natural energy flow together with human interaction, which system is not isolated but related to human behaviors on the site.

Developing a multi-layered energy infrastructure system using natural light collector, movable batteries, passive cooling, landscape integrated pavement lighting, and light weight urban furniture is a process re-phrasing individual presences with one another for an integrated differentiated outdoor land scape/art.

Our proposal of 'Solar Cloud' also investigates the role of collective solar panels as a subsidiary self-shading system, acting as a catalyst of active public space. By working with crowd flows and urban space connectivity, 'Solar Cloud' is creating multiple stages for public activities on the site, where 'Solar Cloud' moves from the Esplanade to the St Kilda Triangle, then extends across Jacka Boulevard to the shore, creating three major fields from rigid to more dynamic urban fabric integrating with the existing one.

Further exploration of the strategic setting energy infrastructure systems gave us a repertoire of rhythms that allowed us to adjust the configurations of each field space. Development of the parametric system helped us to be more predictive in the process of transforming the aggregated energy collectors (Cloud) into realistic outdoor space. The physical construction that operated in all the levels of the fields, starts from a local condition to a global rhythm, reacting to variable design inputs on site.

Site Fluid Analysis

