**Solar Feathers**

Each solar feather is a canopy in the shape of a long arc in plan. The arcs cradle the area around the Palais. Each feather canopy is made of steel beams, framing a layout of 72-cell monocrystalline panels in a herringbone pattern, to form the vanes of the feather. The center feather shaft is left open to the sky and features a line of distinctive colored lighting. It is hoped that this lighting can be continued beyond the project boundaries, to weave in existing streets such as Acland, and on the shore side, to weave in pedestrian bridge(s) and even beyond, to link to future piers and canopies over the water.

Each feather is intended to generate power, but also to create an attractive path and shade for a new set of laneways, picnic areas, and market stalls, to encourage extending the street life of the upper city to the edge of the shore. Melbourne’s existing downtown laneways are the precedent. Rammed earth buildings are planned below the canopy; these are planned as intentionally small to encourage street-market-scale merchants, food vendors, bars, cafes, and temporary use by artisans to sell their work.

**Environmental Impact**

The feathers are scale-able and their placement can be adjusted to preserve desired views, and make pedestrian links across the boulevards to the shore. Areas of the vanes can be left open, without panel infill, as needed for light or vertical access. The canopies are intended to work with the planned below-grade parking, and parts of the urban design plan.

The power output is calculated based on panels lying flat, in order to create a low profile from the city side.

**Materials:**

* Steel
* Rammed earth
* Photovoltaic cells, estimated 300w per panel
* 63 panels per section, 126 panels per 10-meter bay, 24 m wide

**Power:**

For a 100m long feather:

* 435,321 kWh per year

For 3 feathers as roughly sketched:

* 943,900 kWh per year