**DREAM ENERGY NETWORK**

Dream energy network is a land art concept based on the interconnection of trees and the idea that a connected whole is greater than the sum of parts. I derived the concept from the historic Corroboree tree in St Kilda.

The structures are steel-framed lattices of energy generating turbines that form a fabric for the structure and capture wind energy, solar energy (through solar panels on the turbine blades), wave energy (where they enter the sea) and kinetic energy via human interaction. The turbines are arranged either vertically or horizontally on steel frameworks and increase in size the higher up they go. The smaller turbines which are within reach of people, are constructed from a light rubber (recycled) and can generate energy when “spun” by hand or wave movement. The larger turbines which are out of human reach, generate energy from the wind and are made of fiberglass and recycled aluminum. These have solar panels attached to the turbine blades. Energy generated is transmitted below ground where it is connected to the rest of the network.

The Dream Energy Network land art concept is highly versatile in its application and structures could be extended across the city with varying turbine size. Uses include – interactive artworks, bridge and freeway additions, shade for cars and people and installations for unused traffic islands.

**Dimensions**

Smaller turbines are described as 300x200x200mm

Larger turbines are described as 1000x500x500mm

 Energy Generated

Approximate energy generated per annum: 825 Mega Watts

Energy generated: Based on

* 500 large and 500 small turbines per structure
* 15 structures
* Energy generated per large turbine: 1300 kW (annually)
* Energy generated per small turbine: 349 kW (annually)
* Large turbine is 1300 kWh (x24h x364 days = 1300kW)
* Small turbine is 400 kWh (x24h x364 days = 349kW)

**Environmental Impact**

The impact on surrounding ecosystems would include:

* Disruption to soil with the laying of concrete foundations for the steel structures (although soil is likely to already be disturbed in an urban environment)
* Sound impact at high wind speed.
* Materials

Mitigations

* Soil: a proper assessment should be done of soil and vegetation and any excavations should include a top-soil stock piling program.
* Sound: Structures should be located where the turbine sound can be capitalized on (e.g. near to the major roads). Certain no-go areas should be identified to allow for silent spaces
* Materials: Recycled materials should be used where possible.