



The energy source

The fundamental building block of light terrarium (and the source of the site name) is the beta ray which is a relatively new advancement in photovoltaics. The beta ray is a transparent spherical solar energy collector with an inbuilt tracking system that can harvest both solar energy and thermal power simultaneously, generating output regardless of the weather. This new variation of the solar panel boasts numerous advantages over its predecessor in both efficiency and cost. Through concentrating the light to a smaller area the beta ray is able to promise as much as 95% more energy conversion, with a low carbon footprint while producing energy independent of weather conditions. The beta ray achieves this by harvesting thermal power, which makes it independent of cloud cover.

Environmental impact

In total the area that will be covered by the beta rays is 19,000.00 m² and each beta ray takes up 0.0324m² and so in total there will be 586400 beta rays. Each beta ray is 10cm by 10cm and produces about 110 watts per day which in total will be approximately 2680 Kwh for all beta rays and overall will produce 23470 Mwh per year. This is approximately enough energy to power up to 3000 houses with average yearly consumption. In addition to carbon neutral energy produced by the beta ray it also requires significantly less resources to produce and maintain the device. The Light Terrarium concept utilizes a new technology to produce a clean energy producing vibrant public space and it has the potential to pave the way for future urban developments.

- 1.Rawlemon[®] Spherical Beta.ey Solar Generator
- 2.Energy Converter
- 3.LED bulb
- 4.Color Glass Plate
- 5.Structure

