**SWITCH ON**

Switch on proposes a new urban environmental occupation of digital illumination using a net zero emission and welcoming a clean visual energy infrastructure. It offers an interactive opportunity to engage with the site and rouses curiosity as it’s a generative and communicating clean technology. At night the technology transforms with colour and luminosity, engaging the public with radiance and leaving them with a fresh experience. Switch on is a responsive, active and in constant dialogue with visitors. The environmental impact sets into the landscapes, and creates this energetic and charming environment promoting a sense of wonder and interest to variety of renewable technology.

Solar Panels

Each module of the Solar panel pixel is comprised of Zero energy emission panels. With the ability to contain storage able energy. The panels create an approach to a renewable energy that is fresh, exciting and captivating. Each panel is made with 3 material layers. The first panel is made of mirror which collects energy and absorbs solar energy 108 KWH per day. The second layer is for energy storage and is used the night time illuminations of the panels. The third layer is a thick fibrous skin, of photovoltaic panelled systems which enable the illumination of each pixel, which is then used to create a variety of programmed colours.

The amount of energy one panel is 200cms which then creates in one day is 108 kWh. There are 1500 photo voltaic panels which annually creates (1419120000 kWh) 1,419120 MW a year.

Wind Turbine

The series of wind powered sculptures are to encourage a sense of curiosity and in visitors and have them engage or be guided by them. The sculptures are made of concrete which have gaps that allow the wind to enter inside. Inside the sculpture itself contains a wind turbine system known as Vertical axis turbine winds (SVAT). The wind then rotates the five-blade system, which move the dependently on the wind pressure. This system is then connected to a battery storage unit at the bottom, for illumination of LED lights at night.

The amount of energy for one sculpture creates 1,155 kWh per day and 10,117 kWh annually. The amount of repeating sculptures is 50 which creates, (500000 kWh) 500 MW annually.

Kinetic Generators

The ‘tree’ balloons sway to the pressures of the wind which then activates a kinetic energy generator at the base. Each branch has piezoelectric generators and LED lighting system. This unification generates electricity from the bending of the PVC branches, capturing the energy from the movement with the kinetic energy from the movement with the kinetic generators, and lights up to signal the energy harvesting system, used to illuminates at night. The LED lights inside each balloon mesh, to make it illuminate beautifully.

The amount of energy one ‘tree’ can generate is 7.5 KWH and 105 kWh per day. The ‘trees’ all together create (919,000 kWh) 919 MW annually.

Annually all the Renewable technology creates = 1,420539 kWh (1420.538 MW)