
Statistics of energy harvested

- **Energy Harvesting:**

Measurements of energy harvested from the Beacon were made between Sep. 12th and Sep. 23rd. The weather was mixed – i.e., a combination of wet, sun and overcast. No day was clear. Time of sunrise was around 7am and the time of sunset was around 7pm – i.e., daylight hours were 12 hours per day. Given that the longest day of the year in June is 16 hours and 40 minutes and the shortest day of the year in December is 7 hours and 40 minutes, the data for this time of year represents a good approximation of the average amount of energy harvested throughout the year. It is important to stress that these measurements were made in London. Installations in better climates and where the sun is direct overhead would of course generate better data.

- **Energy Value:**

Average Watts per day harvested by tower and stones was 2300 Watt Hours, over half coming from the stones. The current value of this energy is £23.00 per day (given £0.20 per Kwatt hour – EDF standard price). Value of energy for the year is £8,395.

- **Light Generation:**

The amount of energy harvest by the stones and tower is sufficient to drive 10 high-efficiency, 28-Watt fluorescent tubes from 6pm to 2am (i.e., 8 hours per day). These 10 tubes collectively produce 28,000 lumens of light, which is near the intensity of sun/sky light on an average day. Put another way, the energy generated by the tower and paving stones is enough to drive 8 standard Low-Pressure Sodium streetlights (35W) continuously for 8 hours. But because the light tower follows the principle of 'lighting only where and when it's needed', it pulsates at variable rates according to the level of foot traffic. Which means the energy harvested by the tower and stones can drive tubes for longer.