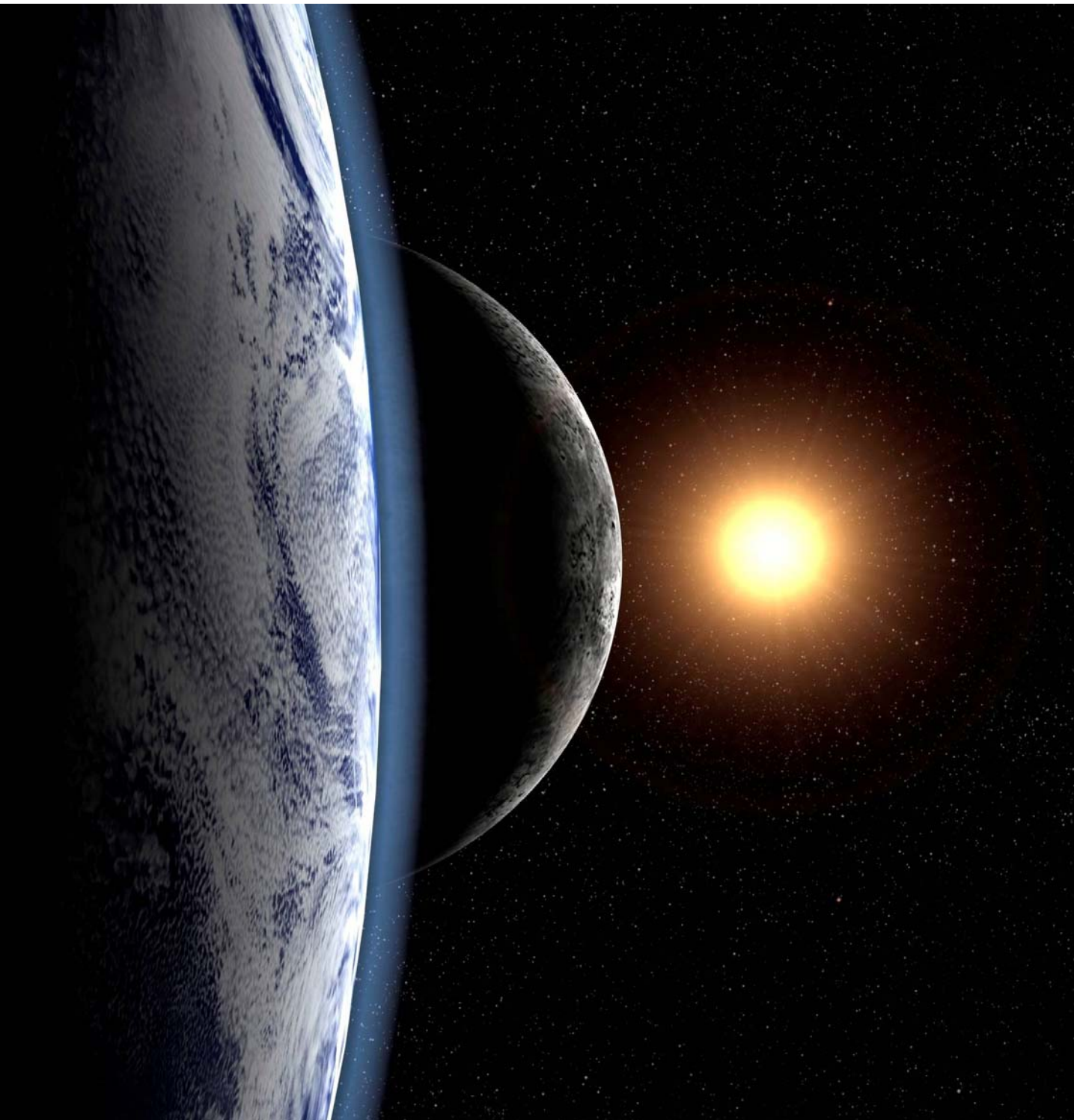
Environmental Information



Environmental Information

EPi's unique process can deliver efficient and cost effective generation of renewable energy. Carbon negative and energy efficient, this process can provide a substantial contribution towards reduction of carbon emissions, whilst providing a practical and environmentally sound solution to the disposal of a wide range of waste materials, that are currently sent to landfill or disposed of in a manner that creates unnecessary emissions.

EPi's unique patented process allows the guiding principles of BAT (Best Available Technology) to combine BPEO (Best Practical Environmental Solution) whilst fully meeting all of the benefits of the Proximity Principle.

Typical Installation : Treating the domestic waste arisings of an average sized town, would require a facility capable of processing around 40,000 tonnes per annum. EPi's technology is supplied in multiples of 1 tonne per hour modules. The above example would require a 5 module installation, which assuming an 8000 hr annual operation, provides a processing capacity of 40,000 tonnes per annum. i.e. 5 tonnes per hour.

Local Impact : EPi have designed the plant with the specific aim of enabling the technology to be located on existing waste transfer or local recycling operations. This not only provides an opportunity to eliminate all secondary transport costs, but physically removes all secondary traffic flow together with the associated pollution and impact upon the local community.

Size : The plant is tiny and is designed to fit comfortably within most existing buildings. A single main process module occupies a footprint of less than 3m x 9m, whereas a full size installation with 5 modules, designed to treat approximately 40,000 tonne per annum, should fit comfortably within a 30m x 10m building.

Noise : The entire process is extremely quiet. The plant itself is virtually inaudible, even when stood next to it. There would be nothing to indicate its presence to anyone outside the building in which the plant was located.

Smoke : There is no combustion - Therefore there is no smoke.

Odour : The process is entirely odourless. As an added bonus, any odour that might have been present within the incoming material is also completely eradicated.

Emissions : EPi's technology is an entirely closed system. There is absolutely no combustion phase, neither as a reaction of the process itself, nor as a means of creating the heat for the process in the first place. The only gaseous output is a predominantly hydro-carbon gas stream. The only possible emissions will be from the gas engines at whatever point the gas is converted into substantial amounts of renewable energy.

Dioxins, Furans and VOC's : are the result of combustion / oxidation processes. As there are no combustion phases in our process, then it is not possible for us to create the type of emissions which rightly cause public concern. In fact our process does the exact opposite. Any existing organic contaminants, that might have resided within the original material, are completely destroyed by the extreme temperatures inside our process.

Surface Discharges : There are none. The only liquid created by our process is organic oil (often referred to as bio-oils). We currently choose to limit production of these and actually convert all of our oil to gas, thereby maximising our potential for generation of renewable electrical energy.

Carbon Footprint : The only point at which any emissions can occur from our process is when the gas is finally turned to energy using a gas engine, or a fuel cell. We are pleased to advise that we produce almost 20 times more energy than we consume, which in our book makes us Carbon Negative by a factor of 20, or as we would say **Carbon Negative** $^{20.}$

Environmental Power International Ltd
Email : info@EPiEnergy.com
UK Office - Tel 00 44 (0) 1225 765816
www.EPiEnergy.com