

# Can plastic trees solve global warming?

By Charlotte Eyre

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UK-based firm SolarBotanic hopes to revolutionise the green energy movement with its new power-generating plastic tree concept, which uses nanotechnology to convert solar energy to electricity.

The Energy Harvesting Trees are made up of thin films and nano-materials built around an artificial trunk structure. The firm is not disclosing what materials it will use to make the tree, as the design is still at the R&D stage, but the company is looking at a range of recycled plastics and rubber materials.

“We are trying to find a carrier that will allow the film to pick up light energy from both sides,” CEO Harry Corrigan told European Plastics News. “That’s something that has never been done before, not even with solar panels.”

The trees are designed to utilise three major types of nano-technologies: photovoltaics, thermovoltaics and piezovoltaic. Photovoltaics directly convert light to electricity; thermovoltaics convert heat to electricity; and piezovoltaics convert kinetic energy to electricity.

Corrigan has high hopes for the energy trees, especially as they are designed to blend into the natural environment.

“There is a lot of resistance to some green energy devices, for example wind farms, especially in the UK,” he says. “But you wouldn’t mind one of these in your garden as it looks like just another tree.”

He says SolarBotanic could become a vital tool in the push for clean energy, claiming an average tree, with a canopy of 6 sq metres could create enough energy to provide for the needs of an average household.

The firm imagines planting Energy Harvesting Trees alongside major roads across the world. It estimates that around 32,000 SolarBotanic trees placed alongside France’s 460km Paris to Lyon highway could lead to the country reducing its carbon footprint by 145,000 tons of CO<sub>2</sub> per year. Similarly, the UK could produce enough electricity to power over 10,000 average size homes by “planting” the trees alongside London’s M25 ring road, it claims. Corrigan says SolarBotanic has invested \$2m in the trees and is hoping to invest another \$2-3m in the prototype, which is due for launch in the next six months.

The concept has already drawn interest from several “large companies” as well as the US, Korean and Japanese governments, he adds.

**Reference: Plastics News Global Group Site – [www.prw.com](http://www.prw.com)**