

Solar Energy South Africa

Wind-powered trees



Overview

What is a wind tree?

The Wind Tree can exploit all types of wind, from gentle breezes to powerful gusts of wind in both urban and rural environments. Images © New World Wind The reality of climate change is creeping in closer and closer each year, and it has led to an encouraging push to clean up the environment and shift to green, renewable energy sources.

Can a micro wind turbine mimic a tree?

One of these innovations is a micro wind turbine that mimics the shape and movement of a tree, addressing some of the challenges that come with using renewable energy sources. Developed by a French startup, New World Wind, these “Wind Trees” have multicolored green “Aeroleafs” on their branches, which are small, vertical-axis wind turbines.

How do wind trees work?

These artificial trees are designed with three steel trunks and other smaller branches that house miniature wind turbines in the shape of leaves. A small gust of wind propels the leaves into motion and – voilà – the Wind Tree begins providing an environmentally friendly form of energy.

How much energy does a wind tree generate?

The Wind Tree only requires an 11-meter radius of land to be installed. Parks, business plazas, and even homes have suddenly become the perfect locations to host a source of renewable energy. In the span of a year, New World Wind claims a single Wind Tree can generate 83% of a French household’s electricity consumption.

What is a wind tree rotor?

Their small size and noise-free nature also mean they can be mounted just about anywhere. And compared to turbines that rely on large wind blades, the

Wind Tree is also considerably safer for wildlife. And while it is not the first proposal to make use of vertical-axis rotors, the Wind Tree concept is far closer to being commercially realized.

Could a wind tree bring wind power into cities?

Urban wind power France already has over 2,000 wind farms, and is planning to build another 8,000, both in the countryside and offshore. But some cities are interested in the wind tree as way of bringing wind power into towns. Anne Ged is the director of the Paris Climate Agency.

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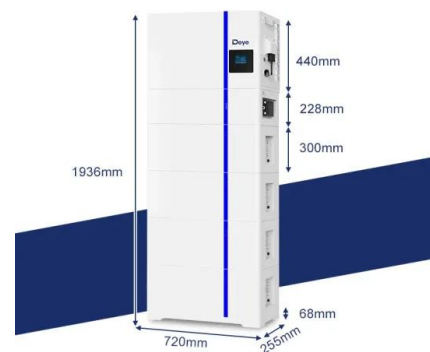
The Wind Tree silently generates electricity from gentle breezes

The Aeroleaf ® is a patented micro wind turbine composed of a double blade with a vertical axis in the form of a leaf and a synchronous micro-generator with permanent magnets. These elements generate an alternating current also ...

[A tree that generates wind power](#)

Cell phone towers masquerading as trees are a pretty common sight. Iowa State University scientists have now similarly disguised wind turbines. and his colleagues set out to design an efficient artificial plant could be ...

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New Wind Tree: Tree Shaped Wind Turbines with ...

Wind power is considered one of the best forms of renewable energy, second only to solar when it comes to clean and sustainable alternatives. As of 2014, wind energy production made up around 4% of total worldwide demand, and ...

'Wind Tree' with micro turbines for green energy in ...

Additionally, hybrid versions of these wind trees are available, incorporating solar petals beneath

the wind turbines. This combination of wind and solar power maximizes energy generation and ensures a more reliable ...



Wind Trees - A New Solution to Green Energy Production

Renewable energy innovators are exploring inventive approaches to incorporate green energy into our homes - a unique solution to this challenge comes in the form of 'wind trees', a micro wind turbine designed to mimic trees.

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