

New hybrid technology set to change the future of renewables

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The McCamley turbine looks quite different to traditional turbines and incorporates solar cells.

A new hybrid technology that integrates wind and solar power generation is set to overcome many of the problems associated with traditional renewable power systems and revolutionise the green energy sector.

The project has been developed by SME McCamley Middle East Ltd with research input from our Department of Mechanical Engineering.

McCamley's hybrid turbines encase [wind turbine blades](#) in an outer frame, which is topped with [solar cells](#). Unlike traditional turbine, the McCamley structure has proven to be bat and bird friendly, with animals being deterred from the blades by the outer frame.

The turbines are specially designed to be mounted on buildings and in built-up areas, helping to facilitate a growth in Urban Renewable Power.

They're lightweight so reduce the impact on buildings, and the multi-leg design distributes the load onto the building evenly.

The compact, noise-free design overcomes concerns that many people have about living near traditional [wind turbines](#) farms.

While traditional turbines lose the ability to generate power at very high wind speeds, the McCamley turbine operates safely in storm conditions and doesn't need to be shut down. Conversely, when wind speeds are as low as 1.8m/s it can still self-start and therefore needs no power from the grid.

Abulrub, CEO of McCamley Middle East Ltd and a University of Bath alumnus, said: "The success of McCamley's hybrid turbine in meeting customer needs and addressing existing associated problems with traditional turbines is the result of innovation and research by both our team and that at the University of Bath.

"Our resulting turbine addresses many of the concerns that the energy sector and the general public have with other [renewable technologies](#), and we believe that as a company we're set to revolutionise the sector."

Dr Necip Sahinkaya, academic lead at the University, said: "Small and medium sized enterprises (SMEs) form a significant share of the UK's economic activities and are being increasingly recognised by the Government as an important vehicle for future growth and economic recovery.

"Through the University of Bath working with SMEs like McCamley we're able to provide a unique environment and leadership. We aim to match our young engineers with innovative companies like this one where the resulting product contributes to the future of our country."

More information on McCamley's hybrid turbines is available from the [company's website](#), or through its [YouTube channel](#).

Provided by University of Bath

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