



Media Release

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Tracking clouds for smoother solar energy delivery

The Australian Renewable Energy Agency (ARENA) today announced \$442,000 funding for Fulcrum3D to further develop an advanced cloud tracking system.

ARENA CEO Ivor Frischknecht said that effectively tracking and predicting cloud movements was a key factor in getting the most out of solar PV installations.

“Fulcrum3D’s ‘CloudCAM’ forecasting technology takes a clever approach to cloud tracking”, Mr Frischknecht said.

“The \$904,000 project is part of a suite of ARENA funded projects to improve the reliability and increase the use of solar PV in Australia.

“Effectively predicting off-grid solar PV output means diesel generators can be switched on before production drops or solar output can be gradually ramped down, smoothing energy delivery and potentially allowing more solar to be used.

“Cloud tracking also has potential on-grid applications. At higher solar penetration levels accurately predicting energy generation is important for system stability, on or off-grid.”

Mr Frischknecht said ARENA’s funding would help move this home grown innovation from development to pilot scale demonstration.

“The project will trial ground-based sensors that can better identify cloud height and track clouds that are layered at different altitudes and moving at different speeds.

“This is a step forward from current forecasting technologies that do not cope well with multi-layered cloud bands.

“The approach marries fit-for-purpose camera hardware with specialised software to predict changes in PV energy output using cloud characteristics and velocities.”

The CloudCAM technology will be developed and trialled at the 1 MW Uterne solar PV plant in Alice Springs. The Uterne plant is currently being expanded with 3.1 MW of additional solar.

The project is scheduled for completion in September 2015.

About ARENA

ARENA was established by the Australian Government as an independent agency on 1 July 2012 to make renewable energy technologies more affordable and increase the amount of renewable energy used in Australia. ARENA invests in renewable energy projects, supports research and development activities, boosts job creation and industry development, and increases knowledge about renewable energy.

About Fulcrum3D

Fulcrum3D was established in 2011 by Fulcrum Energy and its partner Orang-utan Engineering to develop, manufacture, market and support remote sensing equipment for solar and wind energy applications. The Fulcrum3D product range includes wind monitoring with the compact-beam Sodar as well as solar resource and weather monitoring.