



Media Release

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Shining light on an emerging solar technology

An innovative solar cell technology with the potential to reduce the cost of renewable energy is receiving a funding boost from the Australian Renewable Energy Agency (ARENA).

ARENA is providing up to \$892,000 to support CSIRO to develop and apply guidelines for assessing the performance of perovskite solar cells. Perovskite solar photovoltaic (PV) cells have the potential to be a cheaper competitor to traditional silicon cells with comparable efficiency and adaptability.

ARENA CEO Ivor Frischknecht said the undertaking intends to accelerate the development of perovskite solar PV cells in Australia.

“If perovskite solar cell technology matures to commercialisation, it has the potential to provide cheaper power from the sun. Perovskite can be turned into solar PV cells with a less cost and labour intensive process than required with silicon,” Mr Frischknecht said.

“The international standards for measuring solar PV cell performance were established at a time when only silicon wafer cells were available. CSIRO is now aiming to establish new methods and guidelines applicable to cells using perovskite materials.

“A standard approach to measuring the performance of new solar cell technologies will provide a level playing field for researchers and ensure that funding support is directed at the materials and fabrication processes with the greatest potential for success.”

Mr Frischknecht said CSIRO would apply the new guidelines at the ARENA supported PV Performance Laboratory in Newcastle.

“The lab is the first and only in the Southern Hemisphere that is internationally accredited to measure solar PV cell performance and is already proving to be a valuable asset,” Mr Frischknecht said.

“This capability will allow Australian researchers to test perovskite samples on our shores instead of sending them overseas, speeding up research and reducing risk and costs.”

“The solar research community has been getting behind the endeavour. Members of the Australian Centre for Advanced Photovoltaics and international research agencies have provided letters of support and offers of cell samples that will be used to develop best practice methods.

“Internationally accredited laboratories will validate test results and CSIRO will collaborate with overseas counterparts to develop best practice methods suitable for different research laboratory environments.”

The three year \$2.4 million project is due for completion in November 2018.

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About ARENA

ARENA was established by the Australian Government 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. ARENA is currently supporting more than 200 projects and is actively seeking new projects to support.

About CSIRO

CSIRO is pioneering low-emission technologies that create value for industry and households and provide the knowledge which will help guide Australia towards a smart, secure energy future.

Through our scientists and research facilities, CSIRO is playing an essential role in achieving reduced emissions and the better use of energy resources. Our solar project priorities focus on research at the National Solar Energy Centre and examine the technical, economic, environmental and transitional issues for uptake of new energy technologies.

See more information: www.csiro.au/energy