



Media Release

27 May 2015

New laboratory to increase confidence in solar

CSIRO is set to increase confidence in large scale solar by more accurately predicting how different solar photovoltaic (PV) systems will perform on Australian shores.

Over the course of a 32 month project supported by \$1.3 million ARENA funding, CSIRO successfully established unique indoor and outdoor testing capabilities that are now accessible to PV researchers and industry.

ARENA CEO Ivor Frischknecht said these new facilities would allow different solar panels and cells to be scrutinised, assessing how they respond to Australian conditions and predicting their output over time.

“Accurately predicting the energy output of a solar PV power plant is critical throughout its lifecycle, from forecasting future revenue and determining commercial viability to day-to-day operation on the electricity grid,” Mr Frischknecht said.

“Effective forecasting is particularly important for investor confidence and risk mitigation as the cost of new plants is mostly up-front.

“A manufacturer’s solar panel power rating comes from a standardised laboratory measurement that doesn’t represent how well it will perform under Australian conditions.

“Knowing how the panels should perform allows solar PV system design to be assessed, and the quality, health and degradation of systems to be tracked over time.”

Mr Frischknecht said researchers and industry would be able to access CSIRO’s accredited indoor laboratory to independently measure solar cell efficiency against international standards.

“This capability was previously only available at selected PV laboratories in the Northern Hemisphere, making it an important new piece of research infrastructure for the Southern Hemisphere,” Mr Frischknecht said.

“To complement this, the outdoor section of the facility includes the most advanced solar ground measurement station of its type in Australia to measure the impact of different weather conditions and solar radiation levels.

“These notable achievements will further Australia’s enviable position in solar PV research and strengthen the case for utility scale solar PV plants and rooftop installations.”

The results and final report for the \$3.2 million project are now available on the [project page](#) on ARENA’s website.

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, the Commonwealth Scientific and Industrial Research Organisation, is Australia's national science agency and one of the largest and most diverse research agencies in the world. Its role is to deliver great science and innovative solutions for industry, society and the environment.