



Media Release

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ARENA supporting bright ideas in solar R&D

The Australian Government today announced \$21.5 million funding for 12 cutting edge R&D projects that will keep Australia at the forefront of solar research.

Parliamentary Secretary for Industry Bob Baldwin made the announcement at an Australian Renewable Energy Agency (ARENA) event held at the University of New South Wales (UNSW).

ARENA CEO Ivor Frischknecht said the projects from the University of New South Wales (UNSW), the Australian National University (ANU), CSIRO and the University of Technology Sydney (UTS) represented the vanguard of Australia's solar ingenuity.

"These are the top 12 projects from a very competitive round where 110 applications were received, peer-reviewed and ranked against one another," Mr Frischknecht said.

"The research will complement ARENA's existing suite of solar projects, which is already delivering more efficient technologies and helping to reduce costs associated with the deployment of renewable energy in Australia.

"ARENA's investment is being matched by substantial contributions from domestic and international partners, resulting in projects totalling more than \$70 million.

"These projects will extend Australia's world-leading research position in solar R&D and deliver economic benefits by generating Australian-owned IP in potentially game-changing technologies."

Mr Frischknecht said the projects ranged from enhancing existing technologies to advancing emerging technologies in solar photovoltaics, solar thermal and solar storage. They all aim to significantly reduce the cost or increase the efficiency of solar power.

"UNSW is seeking to develop an innovative tandem solar cell using perovskite, an emerging material that can be paired with silicon to produce solar panels that could be cheaper and more efficient than conventional silicon-only panels," Mr Frischknecht said.

"CSIRO plans to leverage its solar thermal know-how to design an heliostat mirror and control system that would enable cost-effective deployment of central-tower solar thermal installations, potentially opening a new domestic market.

"ANU is working with Australian solar cell manufacturer Tindo Solar to optimise solar modules for Australia's unique and demanding conditions, providing a competitive edge in the domestic market.

"UTS is developing improved renewable energy storage using lithium-sulfur batteries, currently the most promising and cost-effective technology for large-scale energy storage.

Providing support to R&D projects is a key part of ARENA's strategy to increase the use of renewable energy technologies by making them competitive with conventional energy sources and addressing challenges unique to the Australian environment.

"ARENA is not in the business of investing in research for the sake of research – there is a direct correlation between the research projects we fund and the application of 21st century renewable energy technologies," Mr Frischknecht said.

See below for the full list of R&D projects to receive funding from ARENA.

The list is also available online: arena.gov.au/r&d.

INSTITUTION	PROJECT	ARENA FUNDING	TOTAL PROJECT COST
ANU	Improving solar-thermal receivers for reduced heat loss	\$1,361,327	\$3,550,549
ANU	Lowering the cost of high efficiency silicon solar panels	\$2,023,407	\$6,998,123
ANU	Advanced surface and contact technologies improving solar cells	\$4,102,000	\$15,842,952
ANU	High-temperature solar thermal energy storage via manganese-oxide based redox cycling	\$1,193,534	\$3,068,472
ANU	Solar panels for the Australian environment	\$502,977	\$1,210,492
CSIRO	High efficiency solar thermal power using Allam cycle	\$2,749,748	\$7,046,100
CSIRO	Virtual power station 2	\$850,000	\$2,587,000
CSIRO	Novel concepts for low cost small heliostats in remote installations	\$1,000,000	\$2,158,071
UNSW	Towards ultimate performance commercial silicon solar cells	\$2,970,702	\$12,804,047
UNSW	High-efficiency silicon/perovskite solar cells	\$3,599,459	\$12,308,605
UNSW	Improving solar cell performance testing	\$381,328	\$926,637
UTS	Lithium-sulfur batteries for large-scale energy storage	\$750,000	\$1,990,000
		TOTAL \$21,484,482	TOTAL \$70,491,048

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 University of New South Wales

The University of New South Wales (UNSW) is Australia's leading research-intensive university focused on science, technology and the professions. Renowned for the quality of its graduates, UNSW has a proud tradition of sustained innovation, focussing on areas critical to the future – from climate change and renewable energies to life-saving medical treatments and breakthrough technologies.

About Australian National University

The Australian National University (ANU) is Australia's national university, and a celebrated place of intensive research, education and policy engagement. ANU is home to an interconnected community of scholars, located in the heart of Canberra. It is also home to the Centre for Sustainable Energy Systems, which carries out world-class research into photovoltaic solar cells and concentrator solar thermal technologies.

About CSIRO

As Australia's national science agency, CSIRO has been pushing the edge of what's possible for more than 85 years. Today CSIRO has close to 6500 talented people working out of 58 centres in Australia and internationally. CSIRO's people work closely with industry and communities to leave a lasting legacy. Collectively, CSIRO's innovation and excellence places it in the top 10 applied research agencies in the world. CSIRO is committed to developing cost-competitive, low-emission energy technologies and helping mark out a pathway to a clean, viable and secure energy future.

About University of Technology Sydney

The University of Technology Sydney (UTS) is a dynamic and forward-looking university, renowned for its practice-oriented teaching programs, focus on high impact research, and strong, enduring partnerships with industry and the professions. UTS is rapidly gaining a reputation for research and teaching excellence. The Australian Government's Excellence in Research for Australia 2012 initiative benchmarks all of UTS' broad areas of research at world standard or above. UTS has consistently been top ranked for teaching.