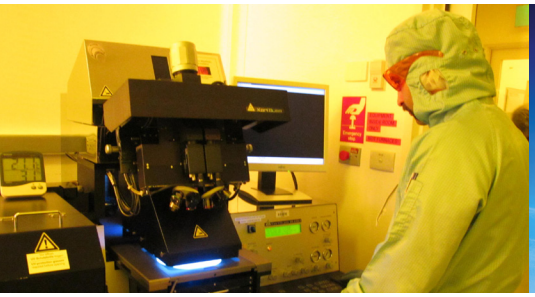
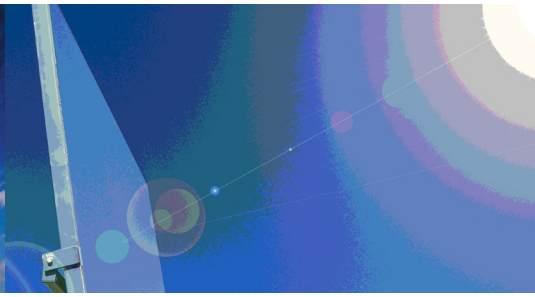
Fact Sheet

United States – Australia
Solar Energy Collaboration – Open Funding Round

AUSTRALIAN SOLAR INSTITUTE





Micro Urban Solar Integrated Concentrators (MUSIC)

ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY (RMIT), AUSTRALIAN NATIONAL UNIVERSITY, UNIVERSITY OF NSW, CSIRO, ARIZONA STATE UNIVERSITY, UNIVERSITY OF CALIFORNIA, UNIVERSITY OF TULSA, RHEEM, FIELDERS

AT A GLANCE

Grant Recipient
RMIT

ASI Funding
$4.5 million

Total Project Value
$13.2 million

The thermal requirements of commercial and industrial building processes account for approximately one half of global energy consumption. As such, there is a vast market for the supply of thermal energy in the 100-400°C range, a demand that is currently met by gas and electricity. However, if the correct technology is implemented it could also be met by concentrated solar power, eliminating billions of kilograms of CO_2 emissions per year.

The aim of this project is to create a paradigm shift in urban solar collector technology. It will develop innovative lightweight, thin, concentrating collector platforms for the delivery of up to 400°C thermal energy and electricity from building roofs. They will be fully contained in a glazed envelope, will have minimal wind loading and architectural impact, will have similar weight and thickness to a photovoltaic (PV) panel, and will be either building integrated or mountable on standard PV racks, thus minimising installation costs.

When coupled with the development of storage and energy/grid management techniques, this technology could potentially revolutionise the uptake and utilisation of solar energy within cities. More importantly, this revolution would require only minor investments and short implementation times.

To achieve these ambitious goals, a multidisciplinary research and development approach will be necessary. Therefore, the Centre will be structured to facilitate the combination of novel collaborative science with innovative engineering and demand management to develop a new class of solar utilisation products.

The project will establish long-term collaboration between Australian and the US, and help create a critical mass of activity. This will position Australia as a world leader in distributed generation of solar energy, spawning new products and services to meet the clean energy market.

> "The project will help create a critical mass of activity to position Australia as a world leader in distributed generation of solar energy, spawning new products and services to meet the clean energy market."
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> *Professor Gary Rosengarten, Project Leader*

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