



**UNSW**  
SYDNEY

## Solar Thermal Energy Harvesting and Storage

**Extensive expertise in development of new solar thermal and thermal energy storage technologies with testing capabilities to understand the performance of existing technologies, with an emphasis on real-world experimentation 'on-sun', where appropriate.**

### Competitive advantage

World-class testing facilities for outdoor testing of prototype solar collectors and thermal storage devices that run on liquid or gaseous working fluids.

### Impact

- Improve technologies for solar thermal and thermal energy storage.

### Successful applications

- Lead investigator on two ARC projects:- Superhydrophobic/nanotechnology, micro solar collectors - Waste heat recycling for desal in solar thermal power plants
- Chief Investigator on four ARENA funded projects in solar thermal areas:- Aluminium processing with solar energy (current project)- Hydrogen production via solar thermal/pv system (in collaboration with Chemical Engineering)

### Capabilities and facilities

- Two outdoor solar laboratories
- An indoor lab for fluids and heat transfer measurements (includes a differential scanning calorimeter, IR cameras, and other thermal characterisation equipment)

### Our partners

- Vast Solar (CSP Engineering)
- Apricus (Solar Hot Water)
- GREE (HVAC manufacturer)
- Solar and Thermal Energy Solutions (Consulting)

### More Information

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