



**UNSW**  
SYDNEY

# Energy Efficiency and Renewable Energy Systems

**Energy efficient buildings, Building Integrated and Building Applied PV/energy systems for low energy buildings and highly efficient fluid handling systems.**

## Competitive advantage

- Expertise in analysis of energy systems to enhance energy efficiency and renewable energy integration, technical and economic optimisation.

## Impact

- Step changes in energy performance through the integration of highly optimised efficient and renewable energy systems
- High-efficiency fluid handling systems capable of delivering significant energy and emissions savings for commercial and residential buildings

## Successful applications

- Led the program for CRC for Low Carbon Living – many successful projects taken up by industry
- Algorithms to predict energy demand and solar system performance for individual dwellings were adopted by an industry partner
- Highly efficient fluid handling systems for HVAC in Buildings – optimised HVAC design, adopted by industry partner
- Highly efficient solar thermal, PVT fluid handling systems – world record COP for solar pool heating implemented with industry partner
- Energy efficient building modelling and designs adopted by industry partners

## Capabilities and facilities

- Technical and economic analysis of energy and renewable systems, measurement, modelling, and forecasting
- Development of multipurpose renewable energy systems (PV/Thermal)

## Our partners

- BlueScope Steel
- CSR
- AECOM
- Solar Analytics
- Simply Better Pools Savings

## More Information

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