



Knowledge Sharing Event Sustainable Electricity Access in Pacific Island Countries

3:30-5:00 - 3rd December 2019, Canberra Rex Hotel

In conjunction with the Asia-Pacific Solar Research Conference

<http://apvi.org.au/solar-research-conference/workshops-side-events/>

Pacific Island nations have ambitious renewable energy targets, and have been making significant recent progress towards these goals. There are, however, a number of technical and institutional challenges arising, both in serving remote dispersed off-grid end-users, and as variable renewable energy (VRE) penetration levels increase on what are often relatively small grids.

UNSW Institute for Global Development and the Australian Renewable Energy Agency's Knowledge Sharing Program (Mission Innovation Challenge 2) have provided funding for UNSW, USP and partners CSIRO, ITP Renewables and GSES to engage with stakeholders to identify key challenges towards high RE targets in Pacific Island countries (PICs), and potential solutions.

The aims of the workshop are to:

- Review the status, plans and challenges for energy access and renewables in Pacific Island Countries;
- Present the outcomes of workshops held in Sydney and Suva over the past 12 months; and
- Highlight related partner activities.



A GLOBAL INITIATIVE WORKING TO ACCELERATE CLEAN ENERGY INNOVATION



1 GOAL

To **accelerate** the pace of clean energy **innovation** to achieve performance breakthroughs and cost reductions to provide widely **affordable** and **reliable clean energy** solutions.

25 MEMBERS

Launched in
2015 at COP21
in **PARIS**

MI Members represent about 80% of global government investment in clean energy RD&D

4 OBJECTIVES



Substantial boost
in public sector
investment



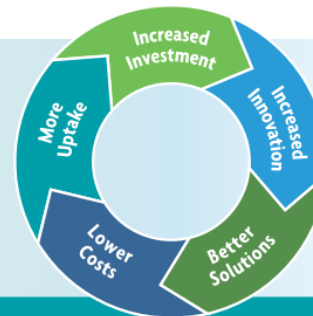
Increased private
sector engagement
and investment



Increasing
international
collaboration



Raising awareness of the
transformational potential
of energy innovation



8 INNOVATION CHALLENGES

Global collaborations to accelerate innovation in key technology areas



IC1
Smart Grids



IC2
Off-grid Access
to Electricity



IC3
Carbon
Capture



IC4
Sustainable
Biofuels



IC5
Converting
Sunlight



IC6
Clean Energy
Materials



IC7
Affordable
Heating and Cooling
of Buildings



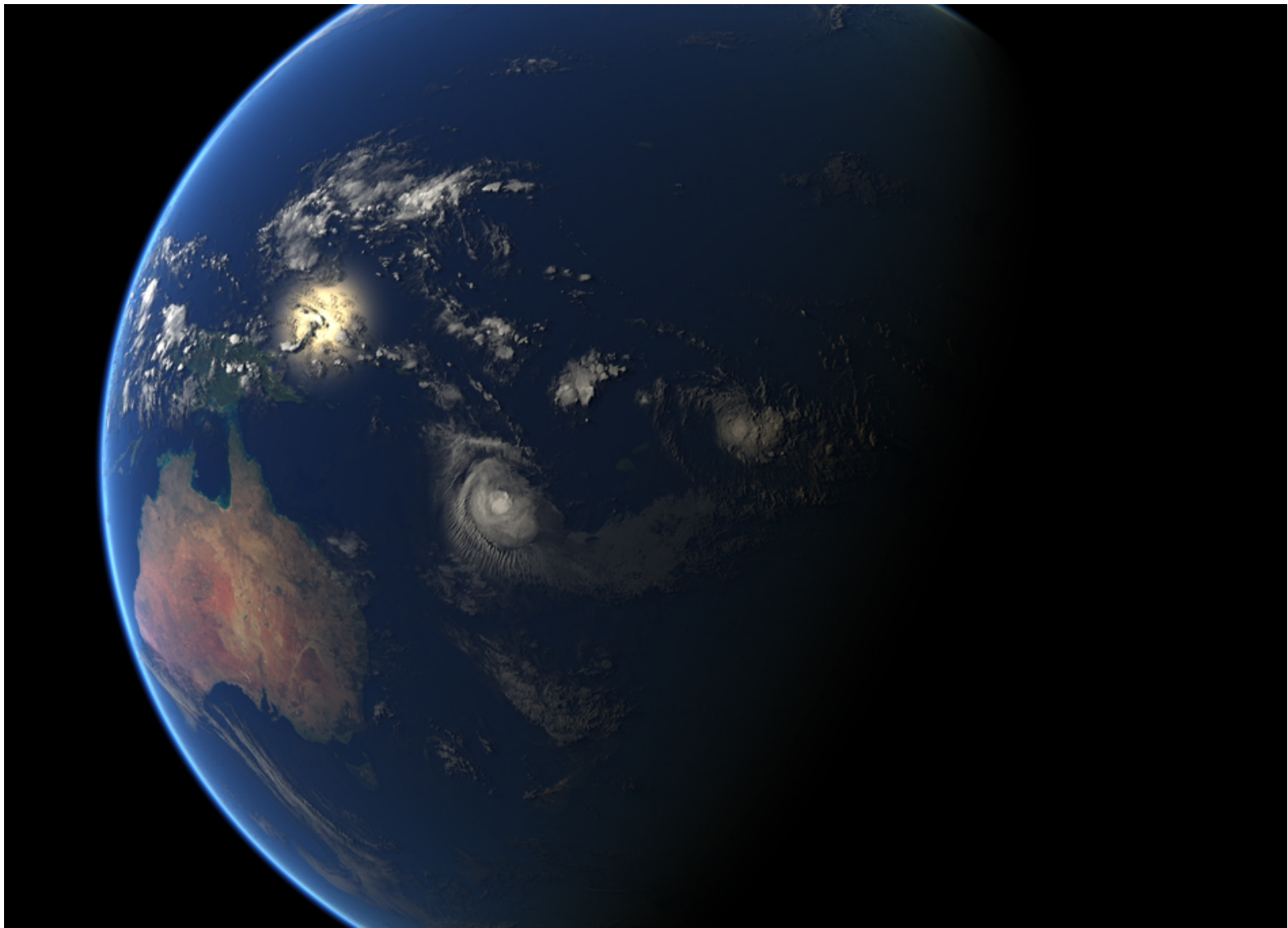
IC8
Renewable
and Clean
Hydrogen

OBJECTIVES OF IC2

The objective for the Off-Grid Access to Electricity Innovation Challenge is to develop renewable systems that are cheaper than fossil fuel for affordable access to electricity by off grid.

For individual homes, the objective is to support the significant reduction in price and increase performance of renewable power systems by 2020 and for remote communities, by 2020 to demonstrate in diverse geographic and climate conditions, the robust, reliable, autonomous operation of renewable power systems up to around 100 kW at a significant lower cost than present cost.





Workshop on High Penetration Variable Renewables in Pacific Island Countries: Small grids and Off-grid

Friday, December 7, 2018, UNSW Sydney, Colombo Theatres

Pacific Island nations have ambitious targets for renewable energy penetration, and have been making significant recent progress towards these goals. There are, however, a number of technical and institutional challenges arising, both in serving remote dispersed off-grid end-users, and as variable renewable energy (VRE) penetration levels increase on what are often relatively small grids.

UNSW Institute for Global Development and the Australian Renewable Energy Agency's Knowledge Sharing Program (Mission Innovation Challenge 2) have provided funding for UNSW, USP and partners CSIRO, IT Power Australia and GSES (Australian RE companies working in the Pacific) to engage with stakeholders to identify key challenges and needs of Pacific Island nations in reaching high RE penetrations. A workshop is held in conjunction with the Asia-Pacific Solar Energy Research Conference at UNSW Sydney, 4-6th December 2018. The aims of the workshop are to:

- Discuss the challenges and opportunities of introducing more variable renewable energy into small grid and off grid contexts in the Pacific
- Hear from a range of invited speakers regarding the status of VRE integration, key challenges and solutions to facilitate high penetration VRE in small grids and improved off grid energy service delivery
- Identify potential future work to address key issues and themes arising in the discussion



Workshop on Sustainable Electricity Access in Pacific Island Countries: From Targets to Implementation

Thursday, August 29, 2019, Pacific Harbour, Fiji

Pacific Island nations have ambitious renewable energy targets, and have been making significant recent progress towards these goals. There are, however, a number of challenges arising, both in serving remote dispersed off-grid end-users, and as variable renewable energy (VRE) penetration levels increase on what are often relatively small grids.

UNSW Institute for Global Development, the Australian Renewable Energy Agency's Knowledge Sharing Program (Mission Innovation Challenge 2) and Clean Energy Solutions Centre have provided funding for UNSW, USP and partners CSIRO, ITP Renewables and GSES to engage with stakeholders to map out goals and progress towards high RE targets in Pacific Island countries and identify key challenges and opportunities to support the transition from assessment and planning to implementing effective solutions.

With a diverse range of projects, country contexts and challenges, standardization of designs and solutions has been challenging to date, while many capacity building and planning efforts have remained project-based.

The aim of the workshop is to identify and kickstart a set of promising collaborative initiatives for regional approaches, standardisation and scaling up. Particular areas of focus include the following areas:

- Training and Capacity Building
- Grid Integration of RE
- Utility management with high RE penetration
- Role for the Private Sector
- Off-grid access
- EE and other distributed energy resources
- Electrifying transportation
- Opportunities for collaboration and support for such initiatives.

Workshop plan

Presentations

- Atul Raturi, USP – Sustainable energy challenges in Pacific Island Countries and Fiji's Low Emissions Strategy
- Manu Rawali, UPNG – PNG electricity access status, plans and challenges
- Danny DeSchutter, ThinkPlace – A design thinking approach to PICs sustainable energy challenges
- Anna Bruce, UNSW – Outcomes of Suva workshop <http://www.ceem.unsw.edu.au/event/workshop-sustainable-electricity-access-pacific-island-countries-targets-implementation>
- Chris Martell, GSES – Task 18 workplan relevance for PICs challenges
- Brian Spak, CSIRO – Pacific Island Countries challenges and potential learnings for Australia
- Muriel Watt, ITP Renewables – PICs policy challenges and potential solutions

Q&A

