Outcomes from Suva Workshop

Sustainable Electricity Access in Pacific Island Countries:

From targets to implementation

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ARENA

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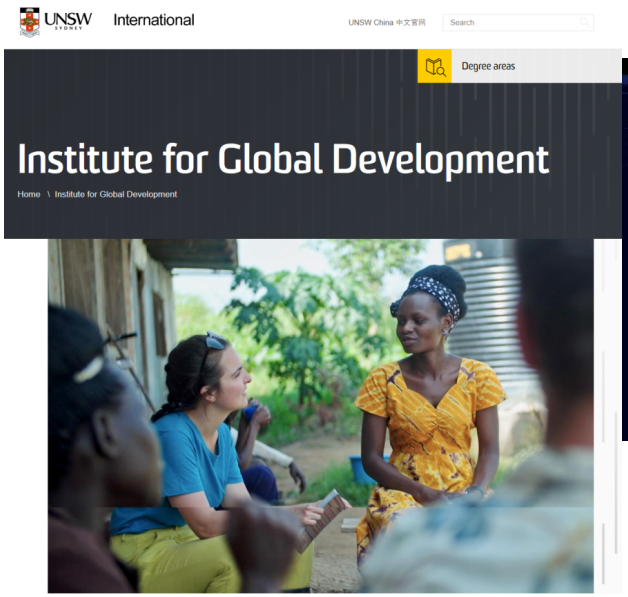

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The Workshop

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

29th-30th August 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.

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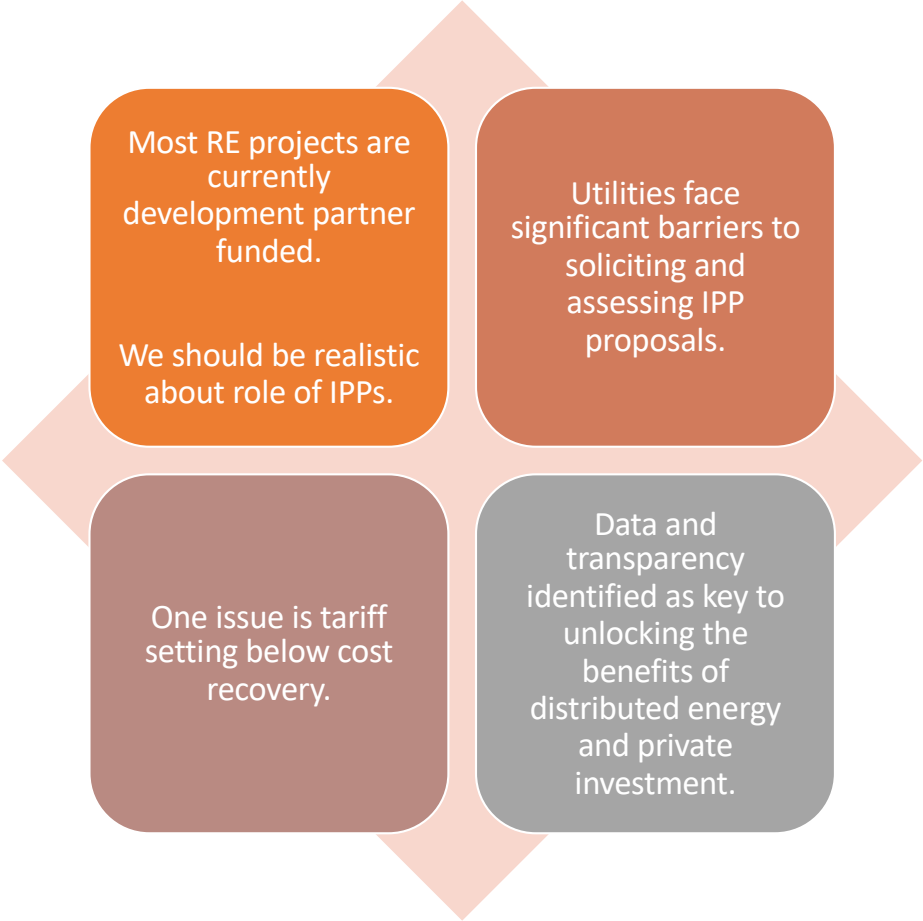
Participants

Questions

1. How might we balance tariff setting and cost recovery? What is the role for the private sector?
2. How might we enable distributed energy incl. EE, while ensuring utility financial sustainability?
3. How might we do off grid projects at scale while still ensuring community engagement?
4. How might we choose what is appropriate for rural electrification (on grid vs off grid)?
5. How might we facilitate utility integration of RE?
6. How might we achieve sustainable transport?

1. How might we balance tariff setting and cost recovery? Noting barriers to private investment, what is the role for the private sector?



1. How might we balance tariff setting and cost recovery? What is the role for the private sector?

Regional coordination for IPPs

Standing regional technical assistance /capacity development for utilities assessing private sector involvement

- Capacity building, templates and on-request assistance
- Transparency, benchmarking of IPPs

Regional coordination for net metering (or export feed in tariffs) to liberate small private sector investment

Improved retail interface to consumers

- Transparency in tariff setting
- Sandpit cost transparency with new minigrids

3. How might we do off grid projects at scale while still ensuring community engagement?

- Key challenges identified:
  - Poor O&M,
  - Lack of capacity building,
  - Lack of data to understand energy access and successful models.
- Community empowerment and knowledge sharing are key.

3. How might we do off grid projects at scale while still ensuring community engagement?

Off grid community projects

Better data on energy access

Community knowledge sharing

Collate best practices in a centralised repository to understand what works and what doesn't

Improved operation and maintenance

- Develop O&M standards and training
- Identify capacity building opportunities through community engagement
- Bundling installation with O&M
- Focus on building energy resilience instead of installing systems

4. How might we choose what is appropriate for rural electrification (on grid vs off grid)?

Not enough data most of the time to answer this question

- Technology assessments
- Understanding the impact of energy access interventions
- Energy demand estimates before and after a project

4. How might we choose what is appropriate for rural electrification (on grid vs off grid)?

Collect data to map demand, cost, income across the Pacific to inform goal setting and understand impact

Requires data collection system and regional coordination

Resource assessment and transparent modelling of generation and electrification costs for on grid and off-grid solutions:

GIS mapping of resources, infrastructure, land ownership, geography and demographics	Cost estimates for equipment, logistics	Models for costs of on grid and off-grid solutions	Performance and reliability data

5. How might we facilitate utility integration of RE?

RE master plan and reverse auctions for RE capacity

- Strategic grid upgrades

Regional coordination of integrated RE programs

- Complimentary projects including broadening to EE/DSM

Standards committee within an existing regional organisation

Donor and development partner harmonization

Pacific Battery R&D Centre

Data collection for planning + operations to integrate RE

Dynamic planning for resilience

- Planning as a tool rather than a goal
- Infrastructure development plan

Conclusions

- Regional approaches can access economies of scale and share learnings
- Data and transparency is critical to improve private investment and consumer trust
- Capacity building needs to be implemented at all levels, programmatically, and should be embedded in every project
- Local capabilities and engagement are key for remote electricity access – complex technologies may be infeasible if capacity can't be built
- Data collection and transparent planning models, regularly updated, are needed to inform good decision making and innovation