



Joint IRENA-PPA workshop:

Assessment of grid stability for increased renewable energy integration in the Pacific

Pacific Room 2, Warwick Le Lagon Resort & Spa

15 July 2012, Vanuatu

Background

In order to address the high dependency on fossil fuel in the Pacific island countries, the efforts in the integration of renewable energy have been increasing over the recent years by the island utilities. As the higher share of variable renewable energy is integrated to island grids, the more critical the grid stability issue becomes.

The majority of island networks are old and the power supply is relatively energy inefficient with high system losses. The Pacific Power Association (PPA) has recently conducted an energy loss study for 20 island utilities which observed an average of 12.8% of utility system losses. With the increased variable renewables integration, stability problems are being experienced already in Niue and Cook Islands.

IRENA has a strong mandate to take the lead at the global, regional, and national levels for promoting renewable energy deployment and provide countries the means for an accelerated renewable energy technology uptake tailored to their specific needs, considering national conditions in resource endowment as well as social and economic factors. IRENA has been engaged in the Pacific region since 2011 as part of the *IRENA Islands Initiative*, established to assist islands in transiting to an increased share of renewable energy, and to learn from their unique experience as lighthouse projects.

To date, IRENA is working with various stakeholders in the Pacific region. As part of the effort, IRENA is carrying out a grid stability assessment with the PPA to identify technical requirements for ensuring grid stability and help the Pacific utilities identify appropriate technology solutions.

Objective

The goal of the workshop is to discuss the specific technology solutions to be implemented to address the challenges of grid stability when integrating increased renewable energy into island grids.

Venue

Date: 9:00 am - , Sunday 15 July, 2012

Location: Port Vila, Vanuatu (A side event of the PPA conference)



Agenda

All speakers to be confirmed.

15 July 2012		
8:30 - 9:00	Registration	
Opening		
9:00 - 9:05	Opening remarks	Andrew Daka, Executive Director, Pacific Power Association
9:05 - 9:10	Welcome speech	Dolf Gielen, Director, IRENA Innovation and Technology Centre (IITC)
Renewable energy integration in the Pacific island grids		
9:10 - 9:25	IRENA Island Initiative: Integration of renewable energy to island grids	Dolf Gielen, Director, IITC
9:25 - 9:40	Challenges in the renewable energy integration in the Pacific island grids	Herbert Wade, Consultant, IRENA
9:40 - 9:55	IRENA-PPA collaborative study on grid assessment	Andrew Daka, Executive Director, Pacific Power Association
9:55 - 10:10	Grid stability assessment study: Experience and lessons learned in Niue	Roel Verlaan, KEMA
10:10 - 10:25	Grid stability assessment study: Australia PV Association studies undertaken of PV penetration on Carnarvon and Alice Springs grids	Geoff Stapleton, GSES
10:25 - 10:40	Questions and Discussions	All
10:40 - 10:55	<i>Coffee Break</i>	
10:55 - 11:10	Dynamic modeling of island grids using simulation software tools (via video)	Koos Theron, DigSILENT PACIFIC
11:10 - 11:25	Storage Systems for the integration of renewable energy	Srinivas Bharadwaj, GNB Industrial Power
11:25 - 11:40	The Networks Perspective: Integration issues and solutions	Wilhelm van Butselaar, SMA



11:40 - 11:55	The Networks Perspective: Integration issues and solutions	James Darbyshire, IS Systems
11:55 - 12:10	Questions and Discussions	All
12:10 - 12:50	Panel discussion: finding specific solutions for ensuring grid stability in renewable integration (tbd)	All Moderator: 'Apisake Soakai, IRENA Renewable Energy Coordinator for the Pacific region
12:50 - 12:55	Summary and way forward	PPA
12:55 - 13:00	Closure of the day	IRENA
13:00 - 14:00	<i>Lunch</i>	