



WWEC 2013

Sustainable Deployment of Renewable Energy in Islands

A side event organised by the International Renewable Energy Agency (IRENA) in collaboration with World Wind Energy Association (WWEA) on the margins of the WWEC 2013.

Date: Monday, 3 Jun 2013
Time: 14:00 – 18:00
Location: WWEC 2013, Havana, Cuba

The International Renewable Energy Agency (IRENA) is an inter-governmental organisation, mandated by governments worldwide to promote the widespread and increased adoption and sustainable use of all forms of renewable energy.

Renewables provide decentralized energy solutions that are already becoming cost-effective in many regions. Renewable sources can provide sustainable energy solutions for many islands and can contribute to their energy security, economic prosperity and sustainable Development. Recognizing this, many island states are increasingly defining targets and developing energy plans to realize their renewable energy potential and stimulate economic growth.

Island environments create specific opportunities and challenges for the deployment of renewable energy technologies, hence they require tailored solutions for the integration of RE. Their relatively difficult access to conventional energy sources, and sparse populations, often make renewables an economically viable option. However, various factors including the lack of institutional, technical and financing skills and expertise have historically hindered the deployment of renewable energies.

IRENA's efforts for the deployment of renewable energy in islands are driven by the provisions of its Statute, the Assembly decisions to date and the various requests by the international community. This event will showcase some of these efforts:

- 1- Pursuant to the Malta Communiqué on Accelerating Renewable Energy Uptake for Islands, IRENA has established a Global Renewable Islands Network (GREIN) to share best practices and seek innovative solutions to accelerate the penetration of renewable energy technologies in islands. Autonomous interest clusters have been launched on renewable energy roadmaps and grid integration on islands, and interest clusters on renewable energy resource assessment for islands and renewable energy applications for island tourism are expected to be launched soon.

- 2- Training, education and skill development are essential for the deployment of renewable energy in islands. IRENA Renewable Energy Learning Partnership (IRELP) portal provides a one-stop-shop for renewables energy education and training. As of now, it includes: a repertoire of global education and training opportunities; a library of renewable energy training materials; a database of webinars; an e-learning platform with lectures and tutorials and a knowledge exchange corner forum.
- 3- In the transition to renewable energy to achieve a more sustainable and secure energy future, the issue of grid stability becomes critically important as a higher share of variable renewable energy sources are integrated to the existing grid systems. Therefore it is required to understand the threshold to which a grid can sustain the penetration of such variable renewable energy without affecting the power quality. Without accurate assessment of the level of renewable energy penetration, it becomes risky to plan appropriately, thereby resulting in grid instability. The issue of grid stability is particularly critical in islands where the grids are small and vulnerable to variable power inputs. The developed methodology for the assessment of grid stability using a dynamic modelling software tool can be applied on islands to raise the confidence of islands worldwide in planning the integration of high shares of renewables in island grids.
- 4- Renewable energy technology (RET) projects often face difficulties in demonstrating their bankability to funding institutions, partly due to a lack of information about the project development process and funding options for renewables. IRENA's RET Project Navigator, aims to help project developers in the member states during the development and implementation of RET projects. The written guidelines conduct project developers through a pre-defined process, providing the tools, case studies and best practices needed for successful completion of the project development stage.
- 5- Many islands are sparsely populated with very low grid connectivity. Off-grid renewable energy deployment offers a viable solution. In 2012, IRENA hosted the first International Off-grid Renewable Energy Conference (IOREC). In this event we will showcase the findings of IOREC that are pertinent to islands.

The side event targets RE experts, decision makers from RE institutions, governments, industries, project developers and scholars that recognise the possibilities of the interaction and co-evolution of the renewable energy sector, the educational sector and the industry sector respectively to scale up the deployment of renewable energy in the Islands.

Agenda

14:00	Welcome and opening remarks	Mr. Hugo Lucas, Director KPFC, IRENA; Mr. Stefan Gsänger, WWEA Secretary General.
	Session 1: IRENA's Global Renewable Islands Network (GREIN)	
14:10	GREIN aims to accelerate the uptake of renewable energy technologies on islands through cooperative work on island	Mr. Hugo Lucas, Director KPFC, IRENA;

	roadmaps, grid integration, resource assessment, and renewable energy applications for tourism.	
14:40	Q&A, discussion.	
	Session 2: IRENA Renewable Energy Learning Partnership (IRELP).	
14:50	IRELP's potential to meet the growing worldwide demand for skilled renewable energy personnel, especially in Small Island Developing States, where they have an important role to play in development and poverty alleviation.	Mr. Hugo Lucas, Director KPFC, IRENA.
15:20	Q&A, discussion.	
15:30	Coffee Break	
	Session 3: Grid Stability and Renewable Energy in Islands	
16:00	Assessing the capability of island grids to absorb a high share of generation from variable renewables like wind and solar power while maintaining reliable service, so that island utilities have confidence to install more renewables.	Mr. Roland Roesch, Senior Programme Office, IITC, IRENA
16:25	Q&A, discussion.	
	Session 4: Project Navigator	
16:35	The Interactive Project Navigator, designed to complement the IRENA Project Guidelines Initiative, will allow for exchange of experiences and ideas in renewable energy project implementation.	Mr. Roland Roesch, Senior Programme Office, IITC, IRENA
17:00	Q&A, discussion.	
	Session 5: Off-grid Renewable Energy for the Islands: Challenges and Opportunities	
17:10	Off-grid renewable energy generation offers a viable solution for providing cost-effective energy access in addition to job creation and income generation.	Mr. Hugo Lucas, Director KPFC, IRENA.
17:30	Q&A, discussion.	
17:40	Overall discussion.	Moderation: Mr. Hugo Lucas, Director KPFC, IRENA.
17:55	<i>Closing remarks</i>	

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