

# CARIBBEAN WORKSHOP ON "RENEWABLE ENERGY IN SMALL ISLANDS DEVELOPING STATES: HOW TO STRENGTHEN RESILIENCE AND ACCELERATE RENEWABLE ENERGY DEPLOYMENT?"

## Aruba, 28-30 November 2018

#### Background

Small island developing states (SIDS) face dramatic and unique challenges hampering their sustainable economic development. Most SIDS are heavily dependent on imported fossil fuels for their energy needs. For reasons of scale and isolation, energy infrastructure costs are high, and the severe impact of oil price and supply volatility is exacerbated by the small size of local markets. SIDS in the Caribbean are also among the countries most vulnerable to the effects of climate change. Many of them are in areas which are prone to natural disasters such as hurricanes and earthquakes.

In this context, the accelerated deployment of renewable energy is increasingly recognised as a crucial pathway to boost socio-economic development, increase energy access, reduce costs, and improve security of supply and strengthen resilience against the impact of climate change.

Great progress has been made in the Caribbean region so far in terms of renewable energy deployment. However, several barriers remain and need to be addressed, often including the limited capacity to plan for the integration and operation of grids with a high share of variable renewables and the low ability to attract foreign direct investments towards renewable energy projects.

In addition, progress has been observed almost exclusively on a limited number of technologies in the power sector. Therefore, extending the focus on all renewable energy technologies and beyond the power sector to include, for example, geothermal energy and the transport sector is of the utmost importance for the Caribbean. With the objective to increase resilience and spur sustainable development, there is therefore a need to define and support the next phase of energy transformation in the region.

#### Objectives

The workshop aims to identify factors and strategies to increase renewable energy penetration in SIDS. The event will target **senior officers from energy ministries and public utilities in the region who are responsible for planning and strategy of the energy sector**. The overall goal will be to discuss how to improve the financial and policy frameworks as well as how to strengthen the local capacities. In addition, the meeting will examine the role that renewable energy can play in assisting countries in achieving NDCs targets and the nexus between renewable energy and food, water, and health.







## **AGENDA**

Day 1	
09:00 - 09:30	Introductory Remarks
	Arno Boersma, Aruba Centre of Excellence for SIDS
	Leighton Waterman, Programme Officer, IRENA Feature Address
	Hon. Evelyn Wever-Croes, Prime Minister of Aruba
09:30 – 11:00	<b>Panel Session I: How to increase resilience in the power sector?</b> Discussion on major development in climate resilient RE-technology, improved T&D design, investment decisions, and risk mitigation strategies.
	Moderator:
	- Mr Leighton Waterman, Programme Officer, IRENA
	Scene-setting presentation:
	- Mr Andrew Thorington, Technical Services Manager, CARILEC
	Presenters and Panellists:
	- Adam Eberwein, EarthSpark
	- Andrew St. Hilaire, Ministry of Communication and Works, British Virgin Islands
	<ul> <li>Neha Mukhi, Senior Climate Change Specialist, World Bank (Remote)</li> <li>Willard Phillips, ECLAC (TBC)</li> </ul>
11:00 - 11:15	Coffee Break
11:15 – 12:45	Panel Session II: NDCs and investment needs to reach NDC RE targets Discussion on the current status of NDCs and investment needed to reach NDC RE targets; Measures to facilitate NDC implementation and access to finance (including climate finance).
	<ul> <li>Scene-setting presentation and Moderation:</li> </ul>
	- Toshiaki Nagata, Senior Programme Officer, IRENA
	Presenters and Panellists:
	- Judith Ephraim, Head Sustainable Energy Unit. Org. of the Eastern Carib. States
	(OECS) - Kurt Inglis, Ministry of Infrastructure, Port, Energy & Labour, Government of Saint
	Lucia
	- Dr Neil Parsan, Caribbean Climate Smart Accelerator (Remote)
	Lunch
12:45 – 13:45	
	Panel Session III: Renewable Energy Nexus
13:45 – 15:15	Discussion on maximising synergies between SDG 7 and other SDGs, with focus on RE projects
	for food security (e.g. food drying) and rural health centres
	Moderator
	- Mr Arno Boersma, Aruba, Centre of Excellence
	Scene setting presentation and moderation:
	- Willard Phillips, Economic Affairs Officer, ECLAC







	<ul> <li>Presenters and Panellists:</li> <li>Shalini Jagnarine, International PAHO Consultant, Pan American Health Organization (Health)</li> <li>Hannah Olmberg-Soesman, Guguplex Technologies, SAC (Agriculture/food)</li> <li>Robert-Jan Moons, TNO Caribbean (Sustainable community)</li> </ul>
15:15 – 15:30	Coffee Break
	Table Discussion to distil results for way forward
15:30 – 16:15	Summary of Day 1
16:15 - 16:30	Leighton Waterman, IRENA

## Cocktail Reception. 6:00 p.m.

Day 2	
09:00 - 10:30	<ul> <li>Panel Session IV: Increasing sustainability in the transport sector <ul> <li>Discussion on options for sustainable transport in the region including road transport (electrification, biofuels, etc.), shipping and aviation, including relevant policies, financing, and planning.</li> <li>Moderator <ul> <li>Mr Leighton Waterman, IRENA</li> <li>Scene-setting presentation</li> <li>Dr. Curtis Boodoo, Asst. Prof. Utilities Engineering Group, Univ. of Trinidad and Tobago, Co-Chair C-SERMS Working Group on E-Mobility</li> <li>Presenters and Panellists:</li> <li>Vivian Rambarath-Parasram, Head MTCC-Caribbean</li> <li>Ryan Falconi, Elmar, Aruba</li> <li>Andrew Irvin, Energy Programme Officer, IUCN Oceania (Remote)</li> </ul> </li> </ul></li></ul>
10:30 - 11:00	Coffee Break
11:00 – 12:30	<ul> <li>Panel Session V: Grid Integration of Renewables</li> <li>Discussion on technical aspects related to the grid integration of renewable energy resources <ul> <li>Scene-setting presentation and Moderation:</li> <li>Manuel Coxe, Programme Officer, IRENA</li> <li>Presenters and Panellists:</li> <li>Ms. Khadija Usher, Generation Planning Engineer, Belize Electricity Limited</li> <li>Sanjay Bahadoorsingh, Snr. Lecturer, Univ. of West Indies, T &amp; T</li> </ul> </li> </ul>
12:30 - 13:30	Lunch









13:30 - 15:00	Panel Session VI: Supporting geothermal and ocean thermal energy deployment - main challenges and possible solutions
	Discuss experiences and lessons learned with geothermal energy development in islands context.
	<ul> <li>Scene setting presentation and moderation:</li> </ul>
	- Judith Ephraim, Head Sustainable Energy Unit. Org. of the Eastern Carib. States (OECS)
	- Presenters and Panellists:
	- Ellsworth Dacon, Director of Energy, Min. of National Security, Air & Seaport Dev, SVG
	- Charlin Bodley, Energy Officer, St Lucia
	- Diego Acevedo, Vice President, Bluerise Ocean Thermal Energy
	- Elvira Morella, Senior Energy Specialist, World Bank (Remote)
	Coffee Break
15:00 – 15:15	
15:15 – 16:15	Conclusions and Way Forward
16:15 – 16:30	Closing Remarks Leighton Waterman, IRENA

### Day 3

09:30 – 12:30	<b>Site visit</b> Smart Community Aruba. SCA brings together a unique mix of ingredients: the support of a powerful consortium of the Aruban electric and water utilities (WEB, ELMAR), Communication company SETAR, the Housing Development foundation (FCCA), Government of Aruba and Caribbean Branch Office TNO. Key objective is knowledge development relating to scalable technology solutions and business models to help make Aruba's transition to sustainable energy a reality.
13:00 – 14:00	Lunch