

 **IRENA**  
International Renewable Energy Agency



# RRA – PANAMA

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## c. Discusiones en grupos de trabajo paralelos

<i>Grupo de discusión 1</i>	<i>Grupo de discusión 2</i>	<i>Grupo de discusión 3</i>	<i>Grupo de discusión 4</i>
<i>Moderador: Ing. Isaac Castillo Subsecretario de Energía</i>	<i>Moderador: Ruben Contreras Lisperguer (IRENA)-Erika Garcia (OLADE)</i>	<i>Moderador: Ing. Fernando Díaz G. de P. Director de Electricidad – (Secretaría Nacional de Energía)</i>	<i>Moderador: Ingeniero José Hernández, Gerente de Planificación y Operación (EOR) – Hugo Ventura (ECLAC)</i>
Plan Estratégico Nacional 2015-2050 Instituciones, Políticas y Marcos Regulatorios	Metas para las energías renovables (potenciales y planificación)	Interfaz entre los mercados nacionales y regionales (financiación y rol del sector privado)	Integración de las energías renovables

## Group discussion guidelines

### *General guidelines*

The group discussions will allow national stakeholders to exchange and validate the findings of the RRA Background Paper with respect to the status of renewable energy development in Panama and key challenges hindering an accelerated deployment of renewables in the country, divided into four subject areas:

1. Plan Estratégico Nacional 2015-2050: Institutional, policy and regulatory frameworks-National and regional implications
2. Renewable energy targets: Assessing the Renewable energy resources for a better planning
3. National and Regional market inter- relation and Renewable energy financing (the role of the private sector)
4. Large integration of renewables and the role of distributed power generation from renewables

The group discussions will also provide input and feedback that will feed into the RRA's services-resources pairs template for each group discussion (using template in Annex 1), to be completed throughout the discussions by appointed rapporteurs and moderators. Completing the RRA's services-resources pairs templates will serve to support the basis for discussions on Day II for national stakeholders present at the meeting to debate and agree on initial recommendations, which will be included in the RRA for Panama (using template in Annex 2) with the help of appointed rapporteurs and moderators.

### *Thematic guidelines*

Significant challenges are hindering deployment of renewable energy technologies in Panama (large and small scale). Despite vast potential in solar and wind particularly, exploiting renewables for electricity generation is still a challenge in Panama. However, with the new policy framework and plan, Panama is taking bold steps to create an enabling environment for renewable energy deployment.

### Group discussion 1

The institutional framework for renewable energy in Panama has been defined through the establishment of “Plan Estratégico Nacional 2015-2050”. To strengthen its mandate for renewable energy in response to growing energy demand and energy shortages, Panama is developing a set of laws and regulations to facilitate the implementation of ambitious renewable energy targets including the adoption of the new Plan Estratégico Nacional 2015-2050, among others. However, there are still present barriers that are hindering on the scaled up deployment of renewable energy and they need to be identified to continue moving forward.

- What are the challenges to implement the “Plan Estratégico Nacional 2015-2050”
- What challenges exist for cross-institutional cooperation on renewable energy resource data sharing and policy-setting
- How can Panama address the challenges already identified?

## Group discussion 2

Panama has already developed some maps for solar and wind<sup>2</sup>. However, the data must be associated with other variables in order to identify a suitable location for a RE project. Assessing the potential of renewables and the suitability of the resources is key to develop bankable projects. Developing a robust reliable and regularly updated database for renewable energy resources based on market needs and technologies will be essential for contribute to information efforts on the available potential of renewables in the country.

- Are the RE targets based on reliable information/data?
- What is the cooperation level among the energy institutions and meteorological institutions?
- Does Panama need to improve renewable energy resource assessment?
- What R&D capacities are needed for renewable energy resource assessment and how can Panama obtain financial support to build required technical and knowledge capacity (e.g. software, hardware and engineering capacity)?

### Group discussion 3

Panama's energy sector is part of a regional interconnection system (SIEPAC) and the new political framework is intended to develop the appropriate incentives for renewable energy deployment, how this national and regional markets interact and the potential to speed up the deployment of renewables in Panama and the region are key challenges to discuss. In addition, The enactment of the "Plan Estratégico Nacional 2015-2050" will support the electricity sector to open up to the private sector as it shifted from a state-owned electricity sector to a gradually decentralized unbundled sector and competitive bidding for solar PV and wind projects as well as the establishment of third-party electricity sales. The role of the private sector will be crucial to mobilize much-needed financing for small-scale and large-scale projects.

- What are the key aspects and interactions between Panama electricity market and the regional market and how these can help to speed-up the deployment of renewables in Panama and the region?
- How can Panama encourage the active involvement of local financial institutions to establish a concrete financial scheme for small renewable energy projects?
- What incentivizing schemes can reduce demand for fossil fuels-based demand and encourage consumers to switch new and renewable energy technologies? Electric cars? More efficient public transportation?
- What institutional mechanisms and policy schemes would be suitable for Panama to provide long-term price guarantee for renewable energy investment and attract private investment at large scale while minimizing investment risk? How could these instruments be put in place and be effective?

#### Group discussion 4

Panama electricity matrix has large shares of hydro power that can support the penetration of large amounts of variable renewable energy (VRE). The new framework and market conditions are changing rapidly in Panama under the new national plan. Therefore, the new renewable energy goals, will increase the number of installed VRE systems. How prepare is Panama to achieve the RE targets.

- What are the studies in place supporting the planning for the deployment of renewables in the grid?
- What support policies and regulations could boost the long-term deployment of renewable distributed power applications?
- How can Panama promote a strengthened collaboration among SWH stakeholders to promote the development of a local market for SWHs?
- What expertise will be needed to support the deployment of renewables in the national grid?

SERVICE	RENEWABLE ENERGY RESOURCE					
	Hydro	Wind	Solar	Bioenergy	Geothermal	Marine
<b>On grid – electricity</b>	x	x	x	x	x	x
<b>Off grid – electricity</b>	x	x	x	x	x	
<b>Motive power</b>	x	x				
<b>Thermal Energy (Heating &amp; Cooling)</b>			x	x	x	
<b>Transport</b>				x		



## Annex 2: RRA Recommendation Plan Template (example)

<b>Service – resource pair(s)</b>	<b>Off-grid solar</b>
Action	Devise appropriate end-user financing mechanisms including the mobilisation of funding to enhance affordability of off-grid renewable energy systems based on lessons learnt under the project.
Actors	Ministry of Energy, financial institutions, project developers, etc.
Time frame	February 2017 – December 2017
Indicator for success	Signed agreement between X and Y
Note: All actions need to be SMART	

## RRA Service-Resource Pair Template

	1	2	3	4
	National Energy Policy and Strategy	Institutions and Regulations	Energy Resources, Technologies, Markets and Infrastructure	Business Model
Current status				
Issues to be resolved				
Capacity Needs	5			
Opportunities and actions				



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