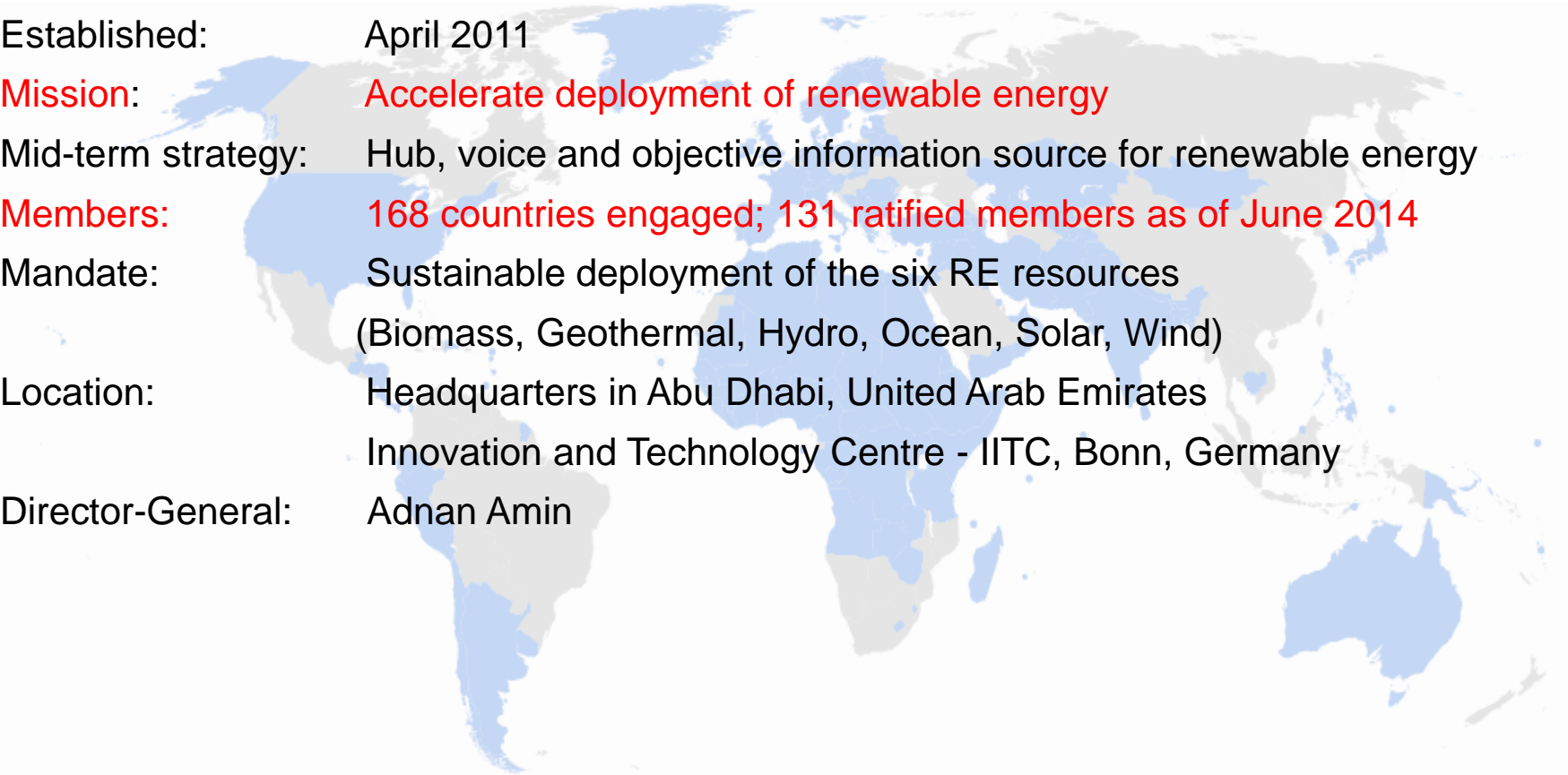


Renewable Power Markets in South East Europe: Opportunities and Barriers to Expansion

***BETTER Regional Workshop
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International Renewable Energy Agency***

International Renewable Energy Agency (IRENA)



Established:	April 2011
Mission:	Accelerate deployment of renewable energy
Mid-term strategy:	Hub, voice and objective information source for renewable energy
Members:	168 countries engaged; 131 ratified members as of June 2014
Mandate:	Sustainable deployment of the six RE resources (Biomass, Geothermal, Hydro, Ocean, Solar, Wind)
Location:	Headquarters in Abu Dhabi, United Arab Emirates Innovation and Technology Centre - IITC, Bonn, Germany
Director-General:	Adnan Amin

Renewable Power Barriers in South East Europe

- Opening of **electricity markets** has been slow.
 - National markets dominated by incumbent utilities.
 - Need opening to IPPs as extra vectors of change.
- Aging **infrastructure** can't easily absorb variable energy
 - Investment needed to refurbish/ enlarge the grid.
- **Operating experience** with variable renewables is limited
 - Training programs needed to build human capacities.
- **Administrative and institutional barriers** make it costly and time-consuming to put RES investments in place.
 - Procedures need to be simplified and harmonized.

- **Regulatory complexity, lack of transparency, lack of consistency.**
- **Lack of implementing legislation and operational direction.**
- **Incomplete market opening to independent power producers.**
- **Incomplete framework for ancillary services and balancing.**
- **Lack of clarity on cross-border transmission capacity for trade.**
 - **Coordinated Auction Office to be established in Montenegro (for Albania, Croatia, Bosnia and Herzegovina, FYR Macedonia, Greece, Montenegro, Romania, Slovenia, Kosovo* and Turkey) solar.**
- **Insufficient transmission and distribution capacity.**

- *How can regulations be simplified while still ensuring competitive, cost-effective, reliable electric service?*
- *How can regulations be made more consistent across ministries and between countries of the region?*
- *How can regulators provide for a more level playing field in the market for independent power producers?*
- *What further steps are needed to establish markets for ancillary services like frequency and voltage control?*

- **Tariffs don't reflect full costs of fossil-fueled generation.**
- **Banks lack experience with renewable power projects.**
- **Supports lack transparency, predictability and funding.**
 - **Feed-In Tariffs often have restricted budgets or support ceilings, such as maximum amount of solar PV capacity to be supported.**
- **Transaction costs often high due to small project size.**

- *How can electricity tariffs be made more cost-reflective?*
- *How can banks be made more familiar with renewable power projects – costs, reliability, lifetime and output?*
- *How can support schemes be better funded – or smartly designed so their need for funding is reduced?*
- *How might renewable power projects be bundled to reduce transaction costs per unit of capacity?*

- **Complex and cumbersome authorization procedures for new projects.**
- **Long and expensive procedures to obtain transmission rights-of-way.**
- **Many permits required from many uncoordinated institutions.**
- **Poor coordination of zoning at local, district and national levels.**
- **Fragmented and unclear land ownership may complicate siting.**

Discussion of How to Deal with Administrative Barriers

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- *How can procedures be streamlined to avoid slowing renewable power development?*
 - *What could be done to make administrative procedures more transparent?*
 - *How could procedures be organized in parallel to speed up approval processes?*
 - *What best practices can countries share for overcoming administrative barriers?*
 - *What are the most important procedures to harmonize to facilitate cross-border investment and trade?*

Transmission Infrastructure Needs in South East Europe

- To expand renewable electricity generation and trade, ***major new transmission links will be needed:***
 - Within each country of South East Europe
 - Among the countries of South East Europe
 - Between these countries and the rest of Europe.
- ***Regional planning*** could help achieve economies of scale and scope in generation and transmission.
- Governments could also cooperate to ***accelerate approval*** of high-priority cross-border transmission links.



Map 3.
PECE Electricity Generation
 Source: Consultants representation of the PECEs
 on the basis of the ENTSOE map

Some Findings on Transmission Projects in South East Europe

- **The TYNDP (Ten-Year Network Development Plan) is robust and practical; three-quarters of all projects included in 2010 were still included in 2012.**
- **ENTSO-E (European Network of Transmission System Operators-Electricity) reports that one out of every three transmission projects in TYNDP 2010 are delayed due to low social acceptance or inefficient permitting procedures. EU energy infrastructure packages attempt to deal with this.**
- **IRENA and partners could help to speed approval of transmission projects by articulating the region's renewable energy potential and the need for transmission lines to bring this potential to market.**

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- *How much new transmission capacity is needed to support renewable power development?*
 - *Are there key transmission corridors that should be strengthened to accommodate more renewables?*
 - *What are the best strategies for ensuring that high-priority regional transmission links are built?*
 - *What smart grid investments could boost the share of renewable power and electricity generation?*
 - *What cost savings might be achieved through joint integrated resource planning of generation and transmission facilities at regional level?*
 - *How can countries cooperate to speed approval of investments in high-priority transmission projects?*

Issues to be Discussed on Renewable Power Financing

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- **What criteria do banks and donors have** for financing renewable energy investment? What government policies could help power plant investors meet those criteria?
 - **What are the principal obstacles** to obtaining the amounts of investment required? What changes in market structure and regulation might promote needed investment?
 - **How adequate are existing financial instruments** to attract the investment required? What financial instruments have been most successful in attracting renewable investment?
 - **How much investment in renewables** and associated transmission infrastructure might be cost-effective and require financing beyond what is required to implement NREAPs?

Heating: Energy Efficiency and Renewable Energy Audits

- Renewables can satisfy a larger share of energy needs if energy is used efficiently – particularly in buildings.
- Key renewable options to consider – where electricity tariffs are high – include solar hot water and rooftop photovoltaics.
- **Audits of cost-effective renewable energy options can be done most efficiently on top of audits of energy efficiency options.**
- **We could cooperate to assess energy auditing capacities:**
 - Are there enough skilled auditors in South East Europe
 - Are they familiar with the renewable energy options?
 - Could European auditing associations help with training?
- Energy Service Companies could help finance EE and RE measures that audits (by themselves or others) find cost-effective.

Thanks for listening!

