IRENA event: Wind Power Economics and Business Models
3 July, Bonn

The World Wind Energy Association WWEA and the German Wind Energy Association BWE will jointly organize the 11th World Wind Energy Conference and Exhibition (WWEC2012) in Bonn, Germany during 3-5 July 2012. The conference is aimed at presenting, exchanging and discussing the latest knowledge on the state of wind energy and renewable energy in general, including the state of the technology.

The theme of the WWEC2012 is "Community Power – Citizens' Power", referring to the development and ownership of renewable energy projects by local citizens and communities including farmers and landowners, cooperatives, municipalities, local and regional utilities, as well as other partners. Amongst the participants, there will be representatives from local, regional and national governments, international organizations, community power wind farm developers, local and regional utilities, engineers, wind turbine manufacturers and more.

WWEC2012 is comprised of a three-day programme of panels and presentations focused on ownership and business models, policy, financing, local and regional renewable energy integration, technology, governance and capacity building.

IRENA will organize a side event at this meeting. This event is scheduled for the afternoon of the first day (3 July). About 75 participants are expected.

The side event will consist of four panels or around 55 minutes each, all related to activities in the IRENA work programme for 2012. One speaker will set the scene with a 15 minute talk, followed by three panellists interventions of 10 minutes each and a discussion with the audience of around 20 minutes.

For additional information contact: mtaylor@irena.org

14h00: Costing and competitiveness of wind power

Background

In 2011 IRENA collected data on the status and outlook of cost for wind power and other renewable power generation options (Solar PV, Concentrating Solar Power, Hydropower and biomass for power). The current state of the market and technology are summarised, but the core of the papers is the analysis of the cost of wind power. Regional differences have been assessed and various cost indicators have been developed. The data suggest that the rising cost trend for wind has been reversed and cost reductions are likely in the near-term.

Theme/Questions

Is the projected fall of wind cost likely? How can a cost fall be accelerated?

Why are there significant regional differences in wind energy project and LCOE cost?

Chair

Dolf Gielen

Speakers

Michael Taylor

Stefan Gsänger (WWEA)

14h50: Small wind turbines for mini-grids and islands

Background

Small (<100 kW) and medium sized (100-500 kW) wind turbines are playing an increasing role in markets where large wind turbines are less suited. This includes energy access projects and islands. But it is also becoming a mainstream technology. China already has 0.5 million small-scale wind turbines in operation in Inner Mongolia, while and Spain has a target for 370 MW by 2020. Interesting opportunities exist for shipping and in the urban environment. There is an urgent need for technical standards and certification, a better understanding of the cost and quality of turbines and ways how to integrate them into the system.

Theme/Questions

How can the policy framework for small wind be improved and what role can small wind play in future energy markets?

Chair

Dolf Gielen

Speaker

Nico Peterschmidt (INENSUS)

Panelists

Ignacio Cruz (CIEMAT), Leopold Faye (Vergnet), Shen Dechang (Chinese Wind Energy Equipment Association)

15h40-16h00: Coffee Break

16h00: Wind costs and deployment in Central and South America

Background

There is increasing interest in wind in Central and South America. Recent wind energy auctions in Brazil have shown that wind is becoming increasingly competitive. However, significant barriers need to be overcome if wind deployment is to accelerate and meet the significant potential it has in the America's.

Theme/Questions

How competitive is wind today in Latin and South America?

What is the outlook for wind turbine and total installed costs?

What are the key barriers holding back the deployment of wind in Latin and South America?

Which countries are poised to see the most growth?

Chair

Stefan Gsänger

Speakers

Claudia Do Valle (IRENA), Hugo Lucas (IRENA) and Sergio Oceransky (The Yansa Group)

Open discussion from the floor

16h50: Business models for mini-grids and large wind project development in developing countries

Background

Viable business models are critical for the rapid deployment of wind power.

For mini-grids a community based approach can play a vital role. Issues related to ownership, electricity price setting and recuperation of dues, and the costs for transmission, distribution and connection all play a vital role in determining the economics of these projects. Critically, various types of financing models, including microfinance, require attention if wind in mini-grids (stand-alone or a hybrid) is to see rapid growth.

For large-scale projects, the interest in wind is increasing in non-OECD countries, but apart from China and India is yet to take-off. Part of the challenge is that the development of large wind projects faces a number of barriers. Experience shows that expensive infrastructure is often needed, in the form of roads and transmission lines, that significantly add to the project cost. Imported equipment often incurs high transportation costs, while financing costs are often substantially higher than in larger markets, especially in the least developed countries. A major additional challenge in this context will be to ensure that local communities can benefit directly from larger wind projects, eventually as shareholders, in spite of shortage of equity. A rapid uptake of wind power will depend on solutions to these problems.

Theme/Questions

What are the key factors in a successful business model for wind based minigrids?

To what extent does this differ from solar PV and SHP minigrids?

How do the economics of wind power in developing countries compared with those in developed countries?

What can be done to enhance the economics?

Can higher shares of locally produced components help to reduce the cost?

Which national and international policies and frameworks can support local ownership in terms of manufacturing as well as wind farm operation?

Chair

Hugo Lucas

Speaker

Balthasar Klimbie (Alliance for Renewable Electrification)

Panelists

Jakob Schmidt-Reindahl (INENSUS) and Zuki Jakavula (Just-Energy) and Ibrahim Togola (Mali Folk Centre)

17h40: Closure