

CEM7 Roundtable Topic

Next Generation Wind and Solar – Getting Policies and Markets Right

OVERVIEW

Initial wind and solar power deployment in the 21st century was pioneered by countries using policy instruments such as feed in tariffs. These instruments have been very successful in driving down the cost of wind and solar power. At a time when the cost of wind and solar PV was very expensive, the focus on driving down costs was an effective approach. But thanks to the success of these initial policies, this has now changed. As a growing number of countries is recognizing the opportunity of investing into wind and solar, the focus on generation costs *alone* can be misleading. Today, the value of the electricity that wind and solar produce is quickly becoming equally important. This value is determined by the overall savings wind and solar bring to the system as a whole.

There are many opportunities that policy makers have to increase the value of wind and solar power. These opportunities are not widely known and as a result, existing policies often fail to deliver - a lost opportunity with potentially significant economic consequences. In fact the marginal cost of the balancing options that can be supplied with a system friendly solar and wind deployment are significantly lower than other balancing options on the current technology stage, such as e.g. demand response, storage interconnectors etc.

As part of its Grid Integration of Variable Renewables (GIVAR) project, the International Energy Agency (IEA) has been developing strategy recommendations on how to craft policies that maximize the value of wind and solar power. These were developed under the umbrella of the CEM's Multilateral Solar and Wind Working Group (MSWWG). These strategies include deploying a well-balanced mix of resources and introducing a trade-off between tapping into best resources or locating wind and solar power plants closer to demand. Finally, the design of wind and solar power plants can also increase their value for the entire power system - but only if policy and market frameworks are adjusted to deliver.

STRUCTURE OF THE ROUNDTABLE

The roundtable is expected to be chaired by IEA Executive Director Fatih Birol and feature an input presentation from the IEA that sets the scene on the different opportunities policy makers have to maximize benefits and minimize costs of wind and solar deployment.

This will be followed by a discussion where concrete, best practice examples will be showcased by both government and highest level industry representation. Government interventions could include emerging economies that have implemented best practice approaches (e.g. Mexico) or that are considering market reforms for enhanced RE uptake (e.g. China). These interventions could be echoed by developed country examples, including from Denmark and Germany. Private sector interventions could reflect on the industries' contribution for improving the quality of the electricity that can be obtained from wind and solar power from equipment manufacturers, utilities and innovative market actors.

POTENTIAL DISCUSSION QUESTIONS

The core of the roundtable discussion would be centered on identifying the economic, technological and regulatory barriers that are preventing energy systems from achieving the maximum value of solar and wind deployment. Questions for discussion may include:

- How have recent cost reductions in wind and solar power opened new opportunities for their deployment?
- What are the most appropriate strategies to ensure the secure and cost-effective integration of wind and solar power?
- What are examples of how wind and solar power contribute to their own integration?
- What positive changes are currently underway to facilitate the uptake of distributed renewable energy resources?
- What key elements of market design are needed to maintain investments in wind and solar power?
- What are the best market and policy frameworks to enhance system flexibility?

EXPECTED OUTCOMES

- Endorsement from governments and the private sector that there is a need for a paradigm shift in renewable energy deployment policies and market design: shifting from a focus on costs to one of value
- A clear understanding of what areas/barriers can be addressed and what the industry can offer to achieve significant savings in deploying wind and solar power
- Sharing of best practices in policy and market design to achieve the maximum system value to the power system with solar and wind deployment.

POTENTIAL PARTICIPANTS

Through its well-established contacts to industry stakeholders, the IEA will support securing high level participation at the event via its Energy Business Council and the Renewable Industry Advisory board. The Executive Director of the IEA, Fatih Birol, is expected to chair this roundtable. Furthermore, the Danish, Spanish and German Minister's will make high-level outreach to other CEM Ministers for the roundtable.