**IEAGHG Information Paper 2016-IP46: IEA Medium-Term Renewable Energy Market Report 2016**

The IEA has just published its Medium-Term Renewables Energy Report for 2016. The Executive summary and full report can be found at:

http://www.iea.org/Textbase/npsum/MTrenew2016sum.pdf

http://www.iea.org/bookshop/734-Medium-Term_Renewable_Energy_Market_Report_2016

The report shows that Despite lower fossil fuel prices, renewable power expanded at its fastest-ever rate in 2015, thanks to supportive government policies and sharp cost reductions. Renewables accounted for more than half of the world's additional electricity capacity last year.

Some of the key points taken from the Executive Summary are:

- In 2015, annual renewable electricity capacity growth reached a record at 153 gigawatts (GW), thanks to record additions in both onshore wind (63 GW) and solar photovoltaics (PV) (49 GW).
- Record deployment was accompanied by continued sharp generation cost reductions, with announced record-low long-term remuneration prices ranging from USD 30/megawatt hours (MWh) to 50/MWh for both onshore wind and solar (PV) plants
- Global renewable electricity capacity is expected to grow by 42% (or 825 GW) by 2021
- China remains the undisputable global leader of renewable energy expansion, representing close to 40% of growth
- India's solar PV capacity is forecast to grow eight-fold supported by ambitious government targets and competitive auctions, where contract prices have already declined by a factor of two since 2014.
- Renewable capacity growth will be faster in the United States than in the European Union (EU)
- Solar PV and onshore wind together represent 75% of global renewable electricity capacity growth over the medium-term
- The share of renewables in overall electricity generation will rise from over 23% in 2015 to almost 28% in 2021
- The share of biofuels in transport fuel demand is expected to increase only marginally from 3% in 2015 to 4% by 2021, with growth slowing compared to the 2009 to 2015 period
- While the United States and Brazil will comfortably remain the largest biofuel producers in 2021, Asian markets are forecast to account for over a third of the 2015-21 global biofuels production increase.
- Renewable heat deployment is expected to grow slowly over the medium term
- Renewable heat markets face multiple economic and non-economic barriers that need targeted policy support, particularly in a low fossil fuel price environment

Of interest is the conclusion that: ***More renewables deployment is required to reach long-term climate goals and reduce harmful air pollution.*** The report suggests that renewable power growth is currently in line with the INDC electricity targets to 2030. However, only onshore wind and solar PV deployment are on track with long term 2°C pathways. Meeting the objective of the COP21 global climate agreement to hold the increase in global average temperature to well below 2°C, will require stronger decarbonisation rates and accelerated penetration of renewables in all three sectors: power, transport and heat.

For the electricity sector, the report identifies a set of additional policy initiatives in a number of key markets (including China, United States, India, the European Union and Brazil) which could be implemented in a short period of time with significant impacts over the forecast period. Under this accelerated case projection, global renewable capacity growth could be 29% higher than in the main case forecast. The IEA believes These initiatives would put the global power system on a firmer path towards ambitious climate targets while also improving air quality in key emerging markets (China, India and ASEAN). To achieve this accelerated deployment of renewable energy the IEA advises that policy makers need to address three important challenges to deployment:

1. Addressing infrastructure challenges and market design issues to improve grid integration of renewables.
2. Implementing stable and sustainable policy frameworks that give greater revenue certainty to capital-intensive renewables and reducing policy uncertainties
3. Developing policy mechanisms that reduce cost of financing and lower off-taker risks especially in developing countries and emerging economies.

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