

Special Addresses

by

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at the

International Solar Alliance Forum

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Honourable Director General Upendra Tripathy,

Excellencies, Ladies and Gentlemen,

It is a great pleasure to be here with you today. I want to express my appreciation to the International Solar Alliance for hosting this important Forum. We have been working with nascent ISA for a while. In March last year, I had the pleasure of attending ISA's Founding Conference in New Delhi. On that occasion, we signed a Joint Declaration for the Promotion of Solar Energy Globally. Thank you. We look forward to working together with ISA to advance solar energy deployment in the context of the ongoing global energy transformation in order to meet the SDGs and the Paris Agreement climate goals.

There is a great opportunity to further scale-up solar. The cost decline for electricity generated from utility-scale solar photovoltaic projects has been remarkable. Already today, and increasingly so in the future, solar power generation can undercut the costs of fossil fuel-fired electricity generation. Between 2010 and 2017, solar PV module prices have decreased by 73%. Recent record low auction

prices for solar PV in Dubai, Mexico, Peru, Chile, Abu Dhabi and Saudi Arabia have shown that a Levelized Cost of Electricity of below USD 0.03/kWh is possible. The costs for concentrated solar power is also decreasing. Auction results in 2016 and 2017 for CSP that will be commissioned in 2020 and beyond - signal a real step-change, with costs falling to between 6 US dollar cents and 10 US dollar cents per kWh. But to achieve these prices, the right conditions have to be in place, including a favourable enabling environment for renewables; low offtake and country risks; a strong, low project development costs; and strong solar energy potential.

According to IRENA's *Roadmap to 2050*, renewable energy needs to be scaled up at least six times faster for the world to meet the decarbonisation goals set out in the Paris Agreement. The report shows that renewable energy and energy efficiency can, in combination, provide over 90% of the necessary energy-related CO₂ emission reductions.

In addition to a transformation in power generation, achieving these targets would require significant change in all end-use sectors, including heating.

The use of rooftop solar PV panels and solar water heaters must be at the forefront of the

energy transition in the buildings sector and that was rightly underscored by Director General Tripathy. Solar water heaters would need to play a greater role for both industry and buildings, and cover around 9% of all final energy use worldwide. This would entail the development of a huge market for solar heaters. Solar thermal applications could also play a much more prominent role in the supply of low- and medium-temperature process heat, as required, for instance, in the food industry. Overall, the currently negligible amount of concentrated solar thermal in industry could grow to a formidable 1 443 GW in 2050.

Solar energy solutions are also driving the creation of access to energy in remote areas. The sector has undergone tremendous innovation in technologies and business models for the provision of renewable electricity at low cost. More than 133 million people today were served by off-grid renewable energy technologies in 2016, up from 20 million in 2011. In only 5 years this is a 600% increase. We discussed this at the IRENA Assembly at a dedicated Ministerial Roundtable, where there is a lot of evidence of excitement and positive momentum in the off-grid solar sector.

I also want to highlight that the solar industry provided 3.37 million jobs in 2017, which is an annual increase of 8.7%. As deployment of solar PV continues to expand, more and more countries will benefit from job creation along the supply chain, primarily in installations and operations and maintenance.

Considering this positive momentum, the Joint Declaration of IRENA and ISA reaffirms our commitment to collaborate on advancing solar deployment by assisting countries in the development of policies and regulations. This is an area in which IRENA has done considerable work particularly on auctions and their design. IRENA also facilitates project development with tools and platforms including the Global Atlas for Renewable Energy, the Project Navigator, and the Sustainable Energy Marketplace. IRENA and the Terrawatt Initiative (TWI) have launched a joint effort to provide a standardized and open-source contractual documentation solution to solar power projects. The documentation has already been drafted and is currently being reviewed. Soon after, we will seek feedback on it from both public and private stakeholders. Then, the documents will be finalized and made available to the global solar power community and I believe they will be transformational in terms of ensuring consistency and coherence for solar projects.

IRENA will continue to work with the Members and other key stakeholders to advance energy access and build a sustainable energy future that contributes to poverty eradication, economic prosperity, employment creation, and environmental sustainability. I would like to express my sincere gratitude to the organisers for the invitation to this Forum and wish you great success in your efforts to scale-up solar energy deployment worldwide and we look forward to the continued collaboration with ISA in the coming years.

Thank you