

“Accelerating the global energy transition: the way forward”

Remarks

by

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at the

CEM Ministerial Side Event

Innovation of Growth Pattern: Clean Energy Economic Transition

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Your Excellency Mr. Wan Gang, Minister of Science and Technology,

Your Excellency Mr. Nur Bekri, Administrator of the NEA,

Your Excellencies,

Ladies and Gentlemen,

This is the second time this year that I am visiting Beijing – I was here in May for the Belt-and-Road Forum, and now for the 8th Clean Energy Ministerial. These global gatherings are clear signs of China’s leadership in the global energy transition. At IRENA, we have witnessed this leadership first hand since China joined the Agency in 2014, including most recently with China chairing IRENA’s Council for the first time. So I am particularly pleased to have the opportunity to address you here today in Beijing, and I would like to thank the Energy Foundation for its invitation.

The theme of this event is particularly timely. The ongoing transition is not only an energy revolution, but also an industrial revolution, which requires a holistic perspective on all sectors of the economy. The strong business case of renewable energy is at the heart of it.

In only a few years, we have seen the costs of renewables fall at a remarkable pace. Solar PV projects are now being offered for less than US 3 cents/kW. In Abu Dhabi, where IRENA is based, the contract for a solar PV park of 1.177 GW at a price of US 2.42 cents/kWh was just signed. The winning bid was submitted by China's JinKo Solar and Japan's Marubeni. So best case prices are already very competitive. But also on average for all new capacity cost declines are expected to continue in the next decade with costs for solar PV having the potential to fall by a further 60% and by respectively 35% and 25% for offshore and onshore wind.

In 2016, global renewable energy generation capacity increased by 161 GW, making it the strongest year ever for new renewables capacity additions. Around 62 percent of all power generation capacity additions were renewable, with this number above half for every year from 2011. Renewable energy investment stood at nearly USD 300 billion last year, and the decline in costs means that we are getting more for each dollar invested.

While these figures show a clear trend, they do not capture just how transformational the ongoing transition has become. Take California for example – on 13 May this year, a state with a GDP larger than that of France generated 80% of its power from renewable energy sources. On May 26th, in the UK, solar PV generated 8.75 GW of

power, satisfying 24% of electricity demand and outpacing nuclear energy for the first time.

Meanwhile, many countries around the world are raising their ambitions to accelerate renewable energy deployment. China announced earlier this year that it was investing at least 361 USD billion in renewable power generation by 2020 and cancelling plans to build more than a 100 coal plants.

However, for the energy transition to be truly global, the participation of the largest oil and gas producing countries was the real test. And, Ladies and Gentlemen, that is now happening. I was just at the St Petersburg International Economic Forum (SPIEF) last week where I witnessed first-hand how renewables are increasingly at the centre of energy discussions. Russia is now moving ahead with its largest-ever renewable energy auction of almost 2 GW, attracting wide interest from foreign and local investors. Before Russia, I visited Saudi Arabia in April to take part in the launch of a new renewable energy program with up to US\$50 billion in investments planned to achieve a target of 9.5 GW of electricity from renewables by 2023.

But the energy transition is not just about governments. Sub-national governments and cities are also stepping up to the plate. Last month, I participated in the Renewable Cities Forum in Vancouver, a city which has committed to 100%

renewables by 2050, and is collaborating with other cities that share similar ambitions. Last week, an IRENA team visited the province of Hebei, here in China, to discuss with local authorities means to scale-up renewables deployment.

We are also seeing private companies increasingly choosing renewables to power their businesses, with corporate sourcing accounting for USD 25 billion of new utility-scale renewable energy since 2010. Google announced earlier this year that it is set to power 100% of its global operations this year from renewables, and has signed sourcing deals accounting for more than 2.5 GW. IRENA, as the operating agent of CEM's Corporate Sourcing of Renewables Campaign, will be hosting a day-long event on this topic tomorrow, with a number of partners including the Energy Foundation. We invite you all to join what promises to be stimulating discussions with representatives from governments and corporations.

Ladies and Gentlemen,

What all this tells us is that the economic case for renewable energy is now firmly established, and the global energy transition is well underway; and China has been instrumental in making this happen with its large market and manufacturing capacities. As I mentioned earlier, however, renewables have a broader impact. They have not only become a cost-competitive source of energy, but they also bring a wide

array of benefits in terms of tackling climate change and air pollution, fueling economic growth, creating jobs and developing manufacturing. Analysis developed at the request of Germany, which holds the G20 Presidency this year, shows that renewable energy and energy efficiency measures can achieve 90% of the required emissions reductions to decarbonize the energy sector by 2050, in line with the well below 2C degree target of the Paris Agreement. IRENA's own analysis further estimates that this would boost global GDP by 0.8%, while generating employment opportunities for up to 26 million people. IRENA recently released jobs review shows that almost 10 million people now work in renewables. This is particularly important at a time where employment opportunities are sorely needed. These are all remarkable benefits.

At the same time, a system-wide approach is needed to take the energy transition to the next level and further reap such benefits. In this context, innovation is critical and I am glad to see it feature prominently in the event's agenda. Not only technological innovation is needed but also innovation in policy, business models and market design. Innovative solutions can help integrate higher shares of variable renewable energy in power systems. Countries such as Germany and Denmark are showing the way in this respect. Innovative policy frameworks can attract

investments, drive cost reductions, provide incentives to enhance system flexibility and help accelerate deployment of renewables in end-use sectors where it is lagging behind.

IRENA has prepared a report on “*Accelerating the energy transition through innovation*” which will be made available this week as a working paper. This new analysis elaborates the energy innovation challenges of a “well below 2 degrees” scenario in thirteen sectors, building on the decarbonisation study undertaken at the request of Germany during its G20 Presidency. I hope it can contribute to informing the work of Mission Innovation and the Clean Energy Ministerial.

China is at the forefront of efforts to accelerate the energy transformation through innovation. Chinese operators and companies are developing innovative solutions in critical areas such as digitalization, storage and electric mobility. And given the scale of the Chinese market, these solutions can have a transformational impact beyond China. During my last visit to Beijing, I toured the dispatch center of the State Grid Corporation at the invitation of its President with whom I am sharing this panel. It was remarkable to see the grid of the world’s second largest economy being managed from this one place using advanced digital technologies. And, the State Grid has so

far rolled out 350 million smart meters, demonstrating the scale and speed with which these solutions are being deployed in China.

Chinese companies such as GCL and BYD are at the cutting edge of technologies for solar PV, energy storage and electrified transportation, with these last ones being critical for reaching the 6 million electric vehicles target by 2020. There are many other examples I could mention.

China is also spearheading efforts to advance the energy transition through numerous initiatives and partnerships. The Belt and Road Initiative is an example of promoting cooperation to develop the infrastructure that could allow for an accelerated uptake of renewable energy. IRENA estimates that as much as 2,000 GW of interconnection capacity will be required by 2050 in order to meet the objectives of the Paris Agreement.

Cooperation on financing of renewables is also central for accelerating the energy transition. I recently met with the President of the Asian Infrastructure Investment Bank (AIIB), which is based here in Beijing. Energy related projects make up the majority of the AIIB's portfolio, and it is currently finalizing an energy strategy which has a strong focus on clean energy development. The Bank's activities have

the potential of giving a decisive push to the scale-up of renewables in Asian countries.

Ladies and Gentlemen,

We stand at a critical juncture. The energy transition underway is more than a transformation of our energy sector – it is a transformation of our economies which brings new opportunities, greater prosperity and new jobs while improving the air quality in our cities, preserving the environment and protecting our climate. China is at the epicenter of this transformation and of the innovative solutions it calls for. We look forward to working with China and all our 150 Members to scale-up solutions adapted to their needs to accelerate the transition towards a sustainable energy future. Finally, I look forward to today’s deliberations in which many of these solutions will be discussed and congratulate the organizers for a rich and well-designed programme.

Thank you.

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