

Remarks

by

Mr. Adnan Z. Amin

Director-General

International Renewable Energy Agency

at the

**Opening Ceremony of the Great Wall World Renewable
Energy Forum 2018**

Zhangjiakou City, China, 22 March 2018

Vice-Governor of Hebei Province, Madam XIA Yanjun,

Party Secretary of Zhangjiakou city, Mr HUI Jian,

Mayor of Zhangjiakou city, Mr WU Weidong,

Your Excellencies,

Ladies and Gentlemen,

I wish to thank the Zhangjiakou Municipal Government for the invitation to take part in the Great Wall World Renewable Energy Forum today and for the warm hospitality. I visit China regularly and each time I am impressed by the scale and pace of the country's remarkable energy transformation and how it is driven by the bold ambition and the long-term vision of China's leadership. Today, China is the largest renewable energy market in the world. Technology and innovation have played a key role in this transformation. From this perspective, the Forum's focus on cutting edge technologies and innovations to further accelerate renewable energy deployment is very timely and relevant.

Ladies and Gentlemen,

As you are aware, the global energy system is witnessing rapid and disruptive changes. Remarkable cost reductions, technological improvements, and enabling policies have led to an unprecedented growth of renewables that has exceeded all expectations. Since 2012, renewable energy has accounted for more than half of the capacity additions in the global power sector and in 2016 alone a record breaking 162 GW of renewable power generation capacity was added globally. The impressive pace of the energy transformation is underpinned by the business case for renewables which has never been stronger. The average cost of utility-scale solar PV and onshore wind has fallen by respectively 73% and 23% since 2010. The costs of battery storage technologies are likewise falling rapidly; according to our estimates, they could fall by 60% over the coming decade. Meanwhile, technological advances, and in particular digitalisation and big data, are revolutionising the way we design and operate our energy systems and consume energy. A bright new future is ahead of us.

China is at the forefront of these developments in every aspect. It is home to some of the largest renewable energy projects in the world, including the Tengger

Desert Solar Park, the world's largest solar PV plant, with 1,547 MW of power generation capacity, and the world's largest floating solar installation. China has nearly doubled its solar capacity in 2017, adding a total of 53 GW of new solar capacity and 15 GW of new wind installations. China is also a leader in renewable energy investment, accounting for about a third of capital invested worldwide in renewable energy in 2016. As producer of over 60% of all new solar panels in the world, it has also been instrumental in the cost reductions for solar energy, which have been essential in scaling up renewable energy deployment across the globe. To put these numbers into perspective, it is estimated that China is currently installing one wind turbine every hour and enough panels to cover a football field every hour of every day.

Despite these impressive achievements, further action is needed to tackle climate change and limit the rise of the planet's temperature to the well below 2°C objective of the Paris Agreement. IRENA's analysis shows that energy efficiency and renewable energy combined have the potential to achieve 90% of the emission reductions needed by 2050. Efforts must be especially intensified in end-use sectors, which account for around 60% of all energy sector CO₂ emissions. Realising this

potential will require ramping up investment significantly and rapidly. While the cost for decarbonisation may appear large, the savings on expenditures to mitigate climate change and human health impacts, including air pollution, are significant. Doubling the global share of renewables would save between 1.2 and 4.2 trillion USD per year – these savings are four to 15 times larger than the cost of renewable deployment. In addition, the energy transition has a net positive impact on GDP and employment. We estimate that global GDP will be boosted by 0.8% in 2050 and jobs in renewables will reach 26 million from around ten million today.

Ladies and Gentlemen,

Taking the energy transformation to the next level will require changing existing paradigms and building a broad coalition of actors to support this transformation. In view of the continuously growing urbanisation and the need to reconcile the energy demands of rising population with a healthy living environment, regions and cities have emerged as central actors in driving some of the most ambitious energy transformation efforts.

Cities are home to 54% of the global population and generate 70% of global GHG emissions. It is thus encouraging to see a growing number of cities aiming for 100% renewable energy with zero net carbon emissions with a view to transforming their communities and economies and maximising the benefits of renewables for their citizens by creating jobs and improving the health of their citizens. Switching to renewables involves re-imagining the urban energy landscape, from buildings to industry, transport and power. The way systems were traditionally operated and markets were designed did not anticipate the requirements of renewable energy. While many innovative solutions to these challenges have already been found, reaching a higher share of renewable energy will necessitate to continue innovating to develop enabling infrastructure, business models, market regulations and system operations.

Many tools and instruments are already at the disposal of cities and regions today to direct urban energy systems towards renewables and reap their benefits. This includes planning, target setting, regulation, public procurement, direct investment and financing, and awareness raising. To effectively transform their energy systems, cities and regions will need to bring together decision makers from

urban planning, power, transport, waste management, and multiple other areas. Effective cooperation within and between different levels of governance will be essential to unlock finance, technical support and lead to real progress for a sustainable energy future.

Chinese cities and regions are great demonstrations for the tangible impact on the ground of renewables and the ambitious plans that are possible on the sub-national level. Qinghai Province, for instance, ran for seven days on 100% renewable energy last June. Shenzhen City just electrified its entire fleet of 16,000 public buses and other cities across the country are following suit, making impressive progress in electrifying public transport. And our host city today, Zhangjiaokou, has been designated as a National Renewable Energy Demonstration Area by the State Council of China and is undertaking ambitious efforts to advance renewable energy. This includes organising low-carbon impact Olympic Games in its role as host of the 2022 Winter Olympics, together with Beijing,

In this context, it is my pleasure to announce that I will be signing a Memorandum with Madam XIA Yanjun, Vice-Governor of Hebei Province, aimed

at establishing a closer cooperation between IRENA and Hebei Province on scaling up renewable energy deployment and advancing the energy transition at the provincial and municipal levels. As part of this collaboration, IRENA will support the development of an energy transition roadmap for Zhangjiakou City, ahead of the 2022 Winter Olympics, collaborate on the development of the Zhangjiakou International Renewable Energy Industry Innovation Center and actively engage with high-level dialogues and discussions on the energy transition. I am confident that this could mark the beginning of a new era for Zhangjiakou.

Ladies and Gentlemen,

Let me conclude by saying that IRENA is very much looking forward to further strengthening its engagement with China at all levels to build a sustainable energy future. In this regard, China's presidency of the ninth IRENA Assembly in January 2019 will be an opportunity to further advance this cooperation. I wish you all fruitful discussions.

Thank you.