"Drivers, challenges and opportunities of the global sustainable energy transition – developments in the MENA region and Jordan"

Remarks

by

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at the

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Your Excellency, Dr. Hani Al Mulki, Prime Minister of Jordan,

Your Excellency Minister Dr. Ibrahim Saif,

Distinguished Ministers, Your Excellencies,

Ladies and Gentlemen,

I wish to thank you for the invitation to address this important summit and to extend my gratitude to the organisers and the Jordanian authorities, and my appreciation to H.E. Minister Dr. Saif, who served as Vice President of IRENA's 7th Assembly last January.

I am delighted to be here today as this is my first visit to Jordan, and one I have been looking forward to for a long time and especially to participate in this event which is a testament to Jordan's leadership and commitment to advancing an economy powered by affordable, secure and clean energy. The MENA region is in the minds of many, traditionally associated with conventional forms of energy. However, it is remarkable the speed at which renewables are finding the limelight here, and a positive story of diversification and sustainability is emerging as the region continues to showcase the immense possibilities of a sustainable and prosperous energy future.

When IRENA was established just over six years ago in Abu Dhabi, it sent a strong signal to the world that the drive to scale up renewables is being undertaken globally, and the MENA region is playing a central role. At that time, many were not convinced of the need for the energy transformation, or of the role renewables could play. But developments in falling costs, improving technologies and robust policies since then have not only proven the sceptics wrong, but also exceeded the expectations of even the most optimistic supporters.

Today, the transition to a sustainable energy system is well underway. We have entered an era of change, and more importantly, of great opportunity. Renewables are now an essential and growing part of the global energy landscape. This is recognized by an increasing number of governments with more than 170 countries having now established renewable energy targets. I am witnessing this recognition first-hand from the leaders of our Agency's over 150 Member States. Last December, I had the opportunity to meet with HE President el-Sisi of Egypt, who discussed his country's ambitious scale up of renewables in a way that reflected an acute understanding of their socio-economic benefits in terms of growth, employment and manufacturing.

The chief driver of renewable energy deployment is its business case, which is growing stronger. Since last year's summit, renewable energy costs have continued to drop dramatically, with solar and wind projects now offered for 3 US cents per kWh in the region and even less. These cost declines are expected to continue. Our analysis finds that the costs for solar PV could drop by a further 60 per cent, offshore wind by 35 per cent, and concentrated solar power by almost 45 per cent over the decade.

These spectacular cost reductions have paved the way for growing investment and deployment of renewables. IRENA's newly released *Capacity Statistics* report found that renewables generation capacity increased by 161 gigawatts last year, making 2016 the strongest year ever for new capacity additions. Remarkably, over 50 per cent came from developing countries, showing the global nature of the opportunity before us.

The private sector is also becoming an active player in the energy transition. Major global businesses, such as Google, Apple and Facebook, are increasingly powering their operations with renewables. This message emerged from IRENA's 7th Assembly discussions on corporate sourcing of renewables, which were chaired by Minister Saif.

The increasingly bold leadership by MENA countries has placed the region in many ways at the forefront of the global shift to renewable energy. Some of the lowest wind and solar power prices were recorded in renewable energy auctions in MENA over the last two years. In 2016, solar PV achieved a record-breaking bid of 2.99 US cents per kilowatt-hour as part of an 800 megawatt solar park in Dubai. And here in Jordan, the auction scheme is advancing at an impressive pace, with the lowest bid in the second round dropping by nearly 50 percent compared to the previous round's lowest bid.

This momentum in the region continues to grow. At the World Future Energy Summit in January in Abu Dhabi, we heard Jordan announce its intention to award 300 megawatts of new solar and wind projects this year. In the oil producing Gulf region, the UAE, our host country where IRENA is headquartered, announced last January that it would cut carbon emissions by 70 per cent and have 44 per cent of power generation from renewables by 2050. And now Saudi Arabia plans to invest up to USD 50 billion to achieve a target of 9.5 gigawatts of electricity from renewables by 2023, showing that even some of the largest oil producing countries are now part of this global momentum of energy transformation.

In Jordan, the rapid pace of the energy transition is increasingly evident. Faced with rising energy demand, and a need to diversify its energy mix and reduce fossil fuels imports, the government embarked on ambitious plans to harness Jordan's vast solar and wind resources through the creation of an enabling policy environment. By setting its 10% renewables target, designing an incentivizing net-metering scheme and establishing its direct proposal process with the Renewable Energy and Energy Efficiency Law in 2012, Jordan's solar PV market was effectively jump-started. And in a relatively short period of time, Jordan's renewables market has accelerated to become hundreds of millions of USD per year in value. With a renewable energy project pipeline of over 1 gigawatt, Jordan has proven that a country can successfully shift its energy narrative through strong government commitment and economically-transformative plans.

Ladies and Gentlemen,

The socio-economic benefits of the transition to a sustainable energy future are enormous, especially in an era of climate change. Just last month, IRENA released a new study, undertaken in collaboration with the IEA, which shows that a decarbonisation of the energy sector by 2050, in

line with the 'below 2 °C' objective of the Paris Agreement, is technically and economically feasible. Renewable energy and energy efficiency would meet 90% of emissions reductions needed. This energy transition can fuel economic growth and create new employment opportunities. Global GDP will be boosted around 0.8% in 2050 (USD 1.6 trillion). Renewable energy jobs would be around 25 million by 2050, from a current estimate of 9.4 million jobs today.

In the MENA region, the benefits are already being felt, showing that the energy transition is not a burden, but a transformative opportunity. IRENA's *Annual Review of Renewable Energy Jobs 2016* report highlights Egypt's budding solar PV sector that employs an estimated 3,000 people, and which is expected to add many more jobs. In Morocco, the largest solar thermal plant in the world, being built in Ouarzazate, will not only be supplying electricity to one million homes, but will also be creating jobs and improving livelihoods in a disadvantaged region.

The benefits for MENA also extend critical to resource areas, such as water and food security. IRENA's analysis finds that realising renewable energy plans in the Gulf could result in an overall reduction of 16 per cent in water withdrawal in the power sector, equivalent to 11 trillion litres of water per year. Jordan offers an example of this type of forward-thinking approach with the recent opening of its first desalination

plant powered by renewables, which will meet all of Aqaba's water needs until 2035.

Technological innovation is required as we look to integrate higher shares of variable renewable energy into electricity networks, but innovation is also needed in policy, finance, business models and market design. In this context, the innovative approach taken by Jordan to overcome, for instance, barriers to financing should be highlighted. IRENA's *Risk Mitigation* report points out that in 2014, seven solar PV projects in Jordan agreed to standardise and aggregate their projects in order to co-ordinate negotiations, reduce due diligence costs and attract investors, ultimately bringing in USD 247 million in investment. These are valuable lessons from Jordan's experience that other countries can also benefit from.

Ladies and Gentlemen,

The transition to a sustainable energy future offers a path of prosperity and sustainable development, particularly in the MENA region. But an ambitious effort to boost economic growth and diversification requires leadership and we are seeing examples all around the region from Abu Dhabi to Egypt and Morocco. I was very struck by the leadership

provided by His Majesty the King who has not only spearheaded this national effort but is leading by example in converting the Royal Palace and Court to solar power in a record short period with projected economic benefits ahead.

Thank you very much.