

Keynote

by

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at the

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of the
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Your Excellencies,

Distinguished Guests, Ladies and Gentlemen,

I am delighted to join you today and would like to thank the organisers for the invitation to make the keynote at this session. This year, the Singapore International Energy Week is particularly important as it is being held in conjunction with the 36th ASEAN Ministers on Energy Meeting and IRENA's 4th International Off-grid Renewable Energy Conference and Exhibition (IOREC). I am happy to see that 'Invest' is one of the key themes of this year's week, given its centrality to accelerate the global energy transformation.

And this transformation is unfolding as we speak. The cost of renewables has continuously been declining. The cost of electricity for solar PV has fallen by as much as 73 % since 2010 and the cost of wind turbines by 30%. Enabling solutions are witnessing similar trends. Our latest report on battery storage shows that by 2030 total installed costs – both for stationary and mobile applications – could fall between 50% and 60%, and this will dramatically change the landscape of energy. These developments have made possible the addition of 168GW of global renewable energy generation capacity in 2017, making it the fifth consecutive year where

renewable energy outpaced the growth of all other electricity sources accounting for around \$260 billion of investment in 2017. As you look around the world, it has become routine to see examples of solar and wind power generation at below 4 US cents per kilowatt hour.

This transition is nowhere more evident than here in Asia, a continent leading the way with the largest renewable energy market in the world. Southeast Asia, in particular, has emerged as one of the world's fastest-growing regional economies. Renewable energy will be a key in sustaining this growing energy demand while securing considerable socio-economic and environmental benefits for the region. ASEAN has huge renewable energy potential and all countries are actively tapping this immense opportunity. ASEAN has set an ambitious aspirational target of 23% of primary energy supply coming from renewables by 2025. The adoption of such a target, combined with efforts to reduce carbon emissions to meet the objectives under the 2015 Paris Agreement, signal the region's commitment to transforming the energy sector.

IRENA has been supporting the region's efforts to achieve these goals. Our collaboration has resulted in assessment of the potential of renewable energy at the

country and regional levels, as well as in expert analysis of market conditions, technological innovation, financial and policy frameworks required to achieve these goals. The signing of a Memorandum of Understanding this morning, and adoption of the Action Plan between ASEAN Member States and IRENA today, takes our partnership to the next level and reflects IRENA's strong commitment to work with the region on energy transformation.

Although much progress has been made, there is an urgent need to further scale up renewable energy deployment if we are serious about tackling challenges posed by climate change. As the UN Intergovernmental Panel on Climate Change (IPCC) recently reported, we have only 12 years left to take action to keep global temperature rise below 1.5 degrees of pre-industrial levels. IRENA's *Global Energy Transformation Roadmap to 2050* estimates that renewables and energy efficiency together, can provide over 90 per cent of the energy-related CO₂ emission reductions required to keep global temperature rise to two degrees Celsius. This would require a share of two-thirds renewables in total final energy consumption by 2050. A deployment of renewables and energy efficiency solutions on this scale would, from our macro analysis, boost global GDP by over USD 50 trillion, creating 11 million additional jobs and a host of social and economic benefits. We believe that, given

the rapid innovation and strong business case for renewables today, this is an achievable target.

Ladies and Gentlemen,

If we want to reap these benefits, we have to start sowing the seeds now. And this begins with investment. Between 2006 and 2016, nearly USD 27 billion was cumulatively invested in renewable energy in Southeast Asia. However, there is a need to scale up investments well beyond these levels. An analysis by IRENA and ASEAN Centre for Energy shows that USD 290 billion of total investment is required by 2025 for Southeast Asia to reach its regional target, signalling annual investment be scaled up to USD 27 billion, almost a ten-fold increase from the current level. Reaching this level requires targeted efforts focused on improving project readiness, facilitating access to finance, broadening the range of financing instruments deployed, including risk mitigation instruments, as well as a continued strengthening of legal, institutional and administrative frameworks.

Scaling up investments in renewables can be unlocked by using public finance to leverage private sector investment. This can be done by improving early stage

project risks, liquidity, currency and credit risks, and by helping design capital market vehicles to attract investors. We see movement in the right direction in Southeast Asia. For example the World Bank Group's \$650 million Geothermal Resource Risk Mitigation facility in Indonesia aims to mitigate exploration risks, bridge financing gaps and leverage \$4 billion of capital from the private sector. On a global level, a risk mitigation facility that would cover and pool risks not easily borne by mainstream investors would be a promising avenue for attracting large-scale capital providers.

Green bonds are another promising example from the region. GuarantCo, a public finance institution providing credit guarantees for infrastructure projects, recently helped launch the first 10-year local currency green bond in Southeast Asia, proceeds from which will support renewable projects in the Philippines. This success is a part of a burgeoning green bond market in the region, coming on top of Malaysia's launch of the world's first green Islamic (sukuk) bond in 2017 worth \$755 million, and Indonesia's first sovereign green sukuk bond worth \$1.25 billion, issued earlier this year.

On the national level, there is a need for dedicated financing vehicles, such as green investment banks. The region has such institutions; however, challenges exist with their capacity and risk appetite to finance renewable energy projects. Providing concessional financing, capacity building support and risk guarantees to these institutions can enhance the availability of capital, lending capacity and reduce risk.

To support such developments, IRENA has been engaging with governments, capital providers and industry stakeholders to examine the current policy and financial landscape in the renewable energy sector, to identify bottlenecks and highlight practical steps to address them through the sharing of experiences and best practices. IRENA has also developed a range of online tools and platforms that address the lack of deal flow in renewables and connect the industry stakeholders.

Under the IRENA project facilitation approach, IRENA's Global Atlas supports resource assessment to help the identification of suitable project sites, while the Project Navigator provides comprehensive guidance for the development of bankable renewable energy projects. IRENA's Sustainable Energy Marketplace is a match-making platform to connect project developers, financiers and other stakeholders and this is beginning to make a real impact in terms of project facilitation in markets around the world.

Ladies and Gentlemen,

It is encouraging to see corporations and non-energy companies turning to renewable energy to power their businesses. IRENA *Corporate Sourcing of Renewable Energy* report – the first global comprehensive study of industry and market trends in corporate sourcing – shows that corporations from wide range of sectors in 75 countries are already procuring or self-generating renewable energy. Although there is a rising demand for renewable electricity among companies headquartered in Asia Pacific region, few corporate procurements have been made so far. However just last month, Sembcorp Industries here in Singapore, signed a 20-year deal with Facebook to provide it with power sourced from 50 MW solar panels from around 900 rooftops in this land-scarce island state. The region has high potential which can be unlocked through the right regulatory framework and governments’ motivation to incorporate the potential of corporate sourcing in energy strategies and policies.

Ladies and Gentlemen,

Investing in renewables pays off for governments, business, and for people – we have seen this around the world. The economic, social and environmental

benefits they bring are immense. If we use public money wisely and ensure attractive enabling environments for private investment, renewables will be a key factor in sustaining the economic growth of ASEAN in the future. There is no shortage of capital or willingness in capital markets if we get this formula right. Let's not miss this outstanding opportunity for all of us.

Thank you.