

Title: Energy Transition

Date: Thursday, 5 September 2019

Time: 9:00 – 11:25

Venue: Conference Room 1

Status: Open to all participants

Coordinating Organizations: Asia LEDS Partnership (ALP)

Supporting Organizations: IEA, IRENA, REN21, UNDP, UN Environment, UNESCAP, WBCSD, WRI

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Overview

Countries in Asia and the Pacific are leaders in transforming their national and local economies to low emission pathways that will enable sustained economic growth, resource efficiency, resilience, and environmental protection. The energy sector is central to this transformation, and countries are realizing the critical role of the power sector in achieving both the Paris Agreement as well as Sustainable Development Goals. In their NDCs, 14 Asian countries have established renewable energy targets, accounting for an estimated 1TW of renewable energy capacity added, which will require an investment of 1.1 trillion USD.

Renewable energy capacity in Asia and the Pacific has been expanding rapidly in the last decade, increasing from 387 GW in 2010 to 1000 GW in 2018. In 2018 alone, Asia accounted for 61% of new global capacity added. Analyses have shown that South Asia and Southeast Asia can reach 100% decarbonization of electricity generation by 2050 and phase out coal generation by 2040. Yet the abundant opportunities for renewable energy potential within the region remains largely untapped.

Objective

A deep decarbonization of the energy sector would enable multiple benefits for countries in the region, including increased access to electricity and energy security and resilience, as well as reduction in GHG emissions, job creation and improved livelihoods. With this in mind, this session aims to achieve two major objectives:

1. Showcase the efforts of Asian and Pacific countries in leading a transition to low carbon, resilient energy systems, especially scaling-up use of renewable energy technologies
2. Discuss mechanisms for scaling up investments from the public and private sectors to support this energy transition

Expected outcomes

As a result of this session, participants will be able to better understand the unique, context-specific challenges and opportunities associated with scaling up renewable energy and other low carbon energy solutions in Asia and the Pacific. Participants will also obtain an overview of how policy and regulatory environments and innovative financing mechanisms can support low carbon energy transformation and help achieve NDC goals.

Proposed High-Level Agenda

Time	Description	Speaker/Moderator
9:00-9:10	Welcome and Opening Remarks	Ron Benioff, LEDS GP Soumya Chaturvedula, Asia LEDES Partnership
9:10-9:40	Context Setting: Achieving a Low Carbon Energy Future <ul style="list-style-type: none"> • Overview of status of low carbon energy technologies in the Asian and Pacific region, and the importance of decarbonizing the energy sector for achieving the Paris Agreement • Long-term goal setting, technology trends, and the implications of emerging low carbon technologies on policy setting and related market considerations • Overview of decarbonization energy transformation pathways and enabling policies and measures 	Moderator - IEA Energy Transition Overview for Asia and the Pacific, Cyril Cassisa , Environment and Climate Change Unit, IEA (6 min.) Low Carbon Energy Transformation in Thailand, - Phason Haesakul , EGAT (8 min.) Low Carbon Energy Transformation in the Pacific, Christian Lohberger , Pacific Center for Renewable Energy and Energy Efficiency (8 min.) One-minute highlights from audience on examples of low carbon energy transition leadership and priorities for further learning and assistance (8 min.)
9:40-10:30	Panel Discussion on Pathways and Enabling Policies and Measures for Renewable Energy Scale-Up <ul style="list-style-type: none"> • Need and benefit of long-term strategies for accelerating RE use and for developing low carbon, resilient economies • Alternative pathways and planning processes for RE scale-up and application examples • Enabling policies and measures for expanding RE penetration 	Moderator – IRENA RE Scale-Up Pathways and Leadership in Asia and the Pacific, Dr. Paul Durrant , Renewable Energy Innovation, IRENA (6 min.) Achieving High RE Penetration in Asia and the Pacific, Lea Ranalder , Project Manager, REN21 (8 min.) ASEAN Renewable Energy Targets and Pathways, Beni Suryadi , ASEAN Centre for Energy (8 min.) Panel Q&A (10 min.) One-minute highlights from audience on RE and power transformation leadership, needs for further learning

Time	Description	Speaker/Moderator
		and assistance, and/or questions for the panel (10 min) Brief panel responses (8 min)
10:30-11:20	<p>Panel Discussion on Effective Financing Mechanisms for the Low Carbon Energy Transition in Asia and the Pacific</p> <ul style="list-style-type: none"> • Mobilizing clean energy investment at scale • What are the major challenges and obstacles faced by in attracting investment in renewable energy? What are some of the solutions? • Corporate procurement and innovative RE purchasing models for commercial and industrial users 	<p>Overview of Financing Mechanisms, Virender Kumar Duggal ADB (6 min.)</p> <p>Enabling Corporate RE Procurement – Qyuhn Chi Trinh, Clean Energy Investment Accelerator, Vietnam (8 min.)</p> <p>Effective Blockchain Trading Mechanisms for Financing RE Projects – Alastair Marke, Blockchain & Climate Institute (8 min.)</p> <p>Panel Q&A (10 min.)</p> <p>One-minute highlights from audience on leadership with RE investment mobilization, needs for further learning and assistance, and/or questions for the panel (10 min.)</p> <p>Brief panel responses (8 min)</p>
11:20-11:25	Closing Remarks	Carishma Gokhale-Welch , LEDS GP and NREL

<p>Ron Benioff</p> 	<p>Ron is Laboratory Program Manager for International Programs at the National Renewable Energy Laboratory. In this capacity, he leads NREL’s science and technology and analysis cooperation in support of U.S. government programs and with research institutes, governments, international agencies, foundations, and other partners around the world. He also serves as Executive Director of the LEDS Global Partnership where he guides activities of the partnership across the regional platforms, topical working groups, and more than 300 member institutions. In addition, he manages NREL’s work in support of various Clean Energy Ministerial initiatives, including the Clean Energy Solutions Center providing clean energy policy resources, expert advice, and training to countries around the world. Along with leading NREL’s International Programs, Ron has served as manager of the lab’s analysis and state and local programs. Prior to</p>
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	<p>joining NREL in 1997, he worked at the U.S. Environmental Protection Agency for 11 years on climate change and waste management issues.</p>
<p>Soumya Chaturvedula</p> 	<p>Soumya Chaturvedula, Deputy Director, ICLEI – Local Governments for Sustainability, South Asia – has over 14 years’ experience in urban sector, focusing on climate change, energy and municipal service sectors. She holds a Master’s in Environmental Engineering and Business Administration.</p> <p>Soumya leads the Asia LEDS Partnership work in the Asia region – focusing on energy, transport, climate finance and multi-level governance. She is also responsible for the execution of several projects dealing with different aspects of climate change, energy efficiency, renewable energy, resource efficiency, and capacity building. She has been involved in the preparation and execution of projects related to renewable energy, energy baseline studies, energy action planning, energy efficiency (including ESCO contracting) and district cooling systems in Indian cities.</p> <p>Her experience spans over over 30 cities in India as well as in Indonesia and Malaysia. She plays a key role in designing and steering programme implementation and has rich working experience in South Asia and South East Asia regions.</p>
<p>Cyril Cassisa</p> 	<p>Cyril, expert on energy and climate policy analysis, became Project Coordinator in the Environment and Climate Change Team at the International Energy Agency (IEA) in 2018 taking charge of the project on China’s Emissions Trading System. Previously, he was Project Manager at Enerdata from 2015 to 2018 leading several projects on energy transition, NDC assessment and carbon pricing instruments for the WB, UNEP, IRENA, national administrations and private sector companies. Cyril has more than 10 years’ experience in China from 2005 to 2015 where he did his PhD thesis jointly between Ecole Centrale Lyon in France and Chinese Academy of Science (CAS) in China, worked as a Researcher at Beihang and Tsinghua Universities as well as a Climate Expert at the French Embassy in China.</p>
<p>Phason Haesakul</p> 	<p>Phason Haesakul is the engineer who is responsible for the short-term and long-term planning of generation operation at Generation Operation Planning Department, Electricity Generating Authority of Thailand (EGAT).</p>

<p>Christian Lohberger</p> 	<p>Christian Lohberger is the president of the Solar Energy Association of Papua New Guinea. SEAP is a volunteer led industry group that represents the interests and acts a voice for stakeholders in the clean energy and storage sector of PNG. In his day job Christian is the founder and CEO of Astra Solar Ltd which is a project developer and EPC for commercial and utility scale clean energy projects. He is also active in regional dialogue through participation in the Pacific Energy Advisory Group and by sitting on the steering committee for the Pacific Center for Renewable Energy and Energy Efficiency. Christian is attending Asia Pacific Climate Week as a private sector representative of the PNG Climate Change and Development Authority and is a member of their sub-technical working group on energy transition. Christian has a degree in Political Science and a Master's in Engineering.</p>
<p>Paul Durrant</p> 	<p>Paul has over 20 years' experience of shaping UK and international innovation policies and programmes. In January 2018 Paul joined IRENA's Innovation & Technology Centre in Germany. There he leads on strategy and engagement with the aim of fostering deeper international partnership working to accelerate the adoption of the renewable energy technologies that are needed to deliver a clean energy transition.</p> <p>Paul graduated with a PhD in Nuclear Physics from the UK's University of Southampton before taking on technology policy roles in the UK Home Office and Department for Transport. For 10 years Paul led on Energy Innovation Policy & Strategy in the UK's Department of Energy & Climate Change and the Department of Business, Energy & Industrial Strategy. In those roles he managed the Department's €100m+ per annum innovation funding programmes and was instrumental in strengthening the cross-governmental strategy and coordination of the UK's support for low carbon innovation.</p> <p>In his UK roles, and more recently at IRENA, Paul has worked extensively to strengthen international collaborations on clean energy technology-driven innovation including as the UK representative on the EU's Strategic Energy Technology (SET) Plan Steering Committee and chair of the Committee's Bureau. From Autumn 2015 onwards Paul led UK engagement with the Mission Innovation initiative and later became Head of Mission Innovation's Secretariat.</p>
<p>Lea Ranalder</p>	<p>Project Manager, REN21</p>
<p>Beni Suryadi</p>	<p>Beni Suryadi is the Manager of Policy Research and Analytics (PRA) Programme at the ASEAN Centre for Energy.</p>

	
<p>Virender Kumar Duggal</p>	
<p>Qyunh Chi Trinh</p> 	<p>Dr. Qyunh Chi Trinh is an expert on Renewable Energy and Power Market in Vietnam. Before joining CEIA in January 2019 as Advisor on Corporate Clean Investment, she worked for GIZ Energy Support Programme Vietnam for 3 years during which her main task is to provide policy and regulatory advisory service to the Ministry of Industry and Trade on Renewable Energy market development. She was responsible for various studies and policy recommendations such as "Auctioning Mechanism for Wind Power in Vietnam"; "Forecasting System for Wind Power in Vietnam" and "Revision of Feed-in-tariff for Solar PV in Viet Nam applicable post June 2019". Her current position at CEIA allows her to work on daily basis with C&I Energy Buyers, investors and developers of such a dramatically growing market as RE sector in Vietnam.</p>
<p>Alastair Marke</p> 	<p>Alastair Marke is currently the Director-General of the Blockchain & Climate Institute (BCI), which is a think tank supporting governments in the deployment of blockchain and emerging digital technologies to achieve climate change policy goals. He is a co-drafter of the ISO 14097 climate finance standard and a UK representative on ISO 22739 blockchain and distributed ledger technologies standard (use case, smart contract and governance) working groups. In the UK, Alastair chairs the Energy, Climate Change & Green Finance Committee of the British Blockchain Association. He also serves as an ad hoc Expert Advisor to the All-Party Parliamentary Group on Blockchain. From Autumn this year, Alastair will be the Deputy Chairman (Emissions Trading) of the Climate Change Committee under the Blockchain for Government Council.</p> <p>Alastair is a seasoned climate change and innovation policy advisor in the field of international development. Seeing the dire need to accelerate global efforts to fill the current climate finance gap, Alastair co-founded the BCI composing over 80 experts from 30 countries. The group has produced the world's first book on blockchain and climate change issues - "Transforming Climate Finance & Green Investment with Blockchains" released in July 2018. Alastair is a recognised speaker and strategist of a series of innovation projects that apply blockchain to renewable energy, green finance and disaster risk insurance, etc. His forthcoming book will be on blockchain and emissions trading law.</p>

Carishma Gokhale-Welch



Carishma Gokhale-Welch is a Technical Project Leader at the U.S. Department of Energy's National Renewable Energy Laboratory. With nearly two decades of work experience in the U.S. and abroad, her work focuses on providing technical assistance to developing country governments with clean energy planning and strategy. Carishma also supports microgrid feasibility and techno-economic analyses, power sector transformation activities in Asia, energy resilience planning, and assists communities with energy transitions. Before coming to NREL, her work involved overseeing activities ranging from strategic planning, building partnerships and new initiatives, to mine reclamation and watershed management. Raised in India, she was educated at the University of Mumbai and at Yale University, where she earned a Master's in Environmental Management.

About the Organizers

[Asia LEDS Partnership](#) (ALP): is a voluntary regional network comprised of individuals and organizations from the public, private, and non-governmental sectors active in designing, promoting, and/or implementing [LEDS](#) in Asia. It is one of four regional platforms of the [LEDS Global Partnership](#), an initiative of more than 120 countries and international programs launched in 2011 to enhance coordination, information exchange, and cooperation among those working to advance low emission growth around the world.

[International Energy Agency](#) (IEA): is an intergovernmental organization that was founded in 1974 to help its member countries co-ordinate a collective response to major oil supply disruptions. Its mission has evolved to become a global energy authority and rests today on three main pillars: working to ensure global energy security; expanding energy cooperation and dialogue around the world; and promoting an environmentally sustainable energy future.

[International Renewable Energy Agency](#) (IRENA): is an intergovernmental organisation that supports countries in their transition to a sustainable energy future, and serves as the principal platform for international cooperation, a centre of excellence, and a repository of policy, technology, resource and financial knowledge on renewable energy. IRENA promotes the widespread adoption and sustainable use of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy in the pursuit of sustainable development, energy access, energy security and low-carbon economic growth and prosperity.

[REN21](#): was created in 2004 as an outcome of the Bonn 2004 International Conference on Renewable Energy. REN21 is an international policy network of passionate players dedicated to building a sustainable energy future with renewables. Its reports and activities are clustered under two main blocks: 1. Knowledge: what's happening now in the energy sector and what we think will happen. 2. Debates: discussing a renewable energy future with players both within and outside the energy sector.

[UNDP](#): The United Nations Development Programme is the United Nations' global development network. It advocates for change and connects countries to knowledge, experience and resources to help people

build a better life for themselves. UNDP works to eradicate poverty and reduce inequalities through the sustainable development of nations, in more than 170 countries and territories.

UN Environment: The United Nations Environment Programme (UN Environment) is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment. Its mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

UNESCAP: The Economic and Social Commission for Asia and the Pacific (ESCAP) serves as the United Nations' regional hub promoting cooperation among countries to achieve inclusive and sustainable development. The largest regional intergovernmental platform with 53 Member States and 9 associate members, ESCAP has emerged as a strong regional think-tank offering countries sound analytical products that shed insight into the evolving economic, social and environmental dynamics of the region. The Commission's strategic focus is to deliver on the 2030 Agenda for Sustainable Development, which is reinforced and deepened by promoting regional cooperation and integration to advance responses to shared vulnerabilities, connectivity, financial cooperation and market integration. ESCAP's research and analysis coupled with its policy advisory services, capacity building and technical assistance to governments aims to support countries' sustainable and inclusive development ambitions.

WBCSD: WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. It helps make member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies. Its member companies come from all business sectors and all major economies, representing a combined revenue of more than USD \$8.5 trillion and with 19 million employees. Its Global Network of almost 70 national business councils gives its members unparalleled reach across the globe. WBCSD is uniquely positioned to work with member companies along and across value chains to deliver high-impact business solutions to the most challenging sustainability issues.

WRI: WRI is a global research organization that spans more than 50 countries, with offices in the United States, China, India, Brazil, Indonesia and more. Its more than 700 experts and staff work closely with leaders to turn big ideas into action to sustain our natural resources—the foundation of economic opportunity and human well-being. Its work focuses on seven critical issues at the intersection of environment and development: climate, energy, food, forests, water, cities and the ocean.