

ASIA CLEAN ENERGY FORUM 2018

HARNESSING INNOVATION TO POWER THE FUTURE

Manila, Philippines • 4-8 June 2018



The Eleven Meeting of Asia Solar Energy Forum

5 June 2018 (Tuesday), 9:00 a.m. - 5:30 p.m.

Background

The Asia Solar Energy Forum (ASEF) was established with support of Asian Development Bank as a non-profit regional knowledge sharing platform organization to help facilitate solar energy technology transfer across Asia and the Pacific. ASEF aims to bridge the information gap between suppliers and developers in the public and private sectors, support the growth of local solar energy competence in the developing countries of Asia and the Pacific, while addressing the barriers to trade in solar and smart grid applications. ASEF was registered as a non-profit organization in Japan in September 2012.

Multiple trends are driving the transformation of global energy systems, especially electricity networks, including “the digitization of everything and the electrification of everything,” decentralization, decarbonization, and democratization with solar power. Accelerated deployment and rapid cost declines of solar and wind power, energy storage, electric vehicles, smart grid technology, and more broadly the Internet of Things (IoT) can facilitate the growth of digital “exoskeletons” around electricity networks and other energy systems, increasing network resilience while creating opportunities for new business models and operations. Technologies are evolving at exponential rates, but policy, planning, and investment decisions continue to evolve in a linear fashion, which implies that disruption is inevitable, but can the transformation be managed.

Objective of the Workshop

Covering strategic considerations for managing 21st century energy networks, the Eleventh Meeting of Asia Solar Energy Forum (ASEF) will highlight four topics (i) distributed digital solar and storage energy system and business; (ii) deployment of solar park model beyond India; (iii) solar irrigation; and (iv) floating solar.

Agenda

Time	Activity
8:30 ~ 9:00	Registration
9:00 ~ 9:10	Opening Remarks Yongping Zhai, Chief of Energy Sector Group of Asian Development Bank and Chair of ASEF
9:10~ 9:40	Keynote Address <ul style="list-style-type: none"> ▪ International Solar Alliance and Scaling of Solar Energy Kewal Kumar Sharma, Advisor, International Solar Alliance ▪ Utility 3.0: The Role of Future Power System to Decarbonize the Society Hiroshi Okamoto, Ph.D., Executive Vice President, TEPCO Power Grid, Inc. ▪ Leandro Leviste, CEO of Solar Philippines
9:40~ 10:30 (50 minutes)	<p>Session 1: Quantum leap by Digitization, Decarbonization, Decentralization, Democratization, and Disruption</p> <p><i>This session will discuss such global trend and possibility to apply for Asian DMCs and relevance to solar energy.</i></p> <p>Moderator: Yongping Zhai, Chief of Energy Sector Group, Asian Development Bank and Chair of ASEF</p> <p>Presentations:</p> <ul style="list-style-type: none"> ▪ Distributed Solar Disruptions Required to Meet the SDGs: Experience of Bangladesh Dipal Barua, Founder and Chairman, Bright Green Energy Foundation ▪ Energy Transformation and Solar Intermittency Issues in Power Design Hiroshi Tomita, Director, Infrastructure and PPP, PwC Advisory LLC ▪ Put A Real Elephant in the Fridge: A Sustainable Path of Traffic Solution in Bangladesh Tan He, Chief Executive Officer, Bangladesh Electric Vehicle Limited ▪ Solar Rooftop Programme in India Dilip Kumar Jain, General Manager (Credit), Punjab National Bank, India Jeevan Kumar Jethani, Director, Ministry of New and Renewable Energy <p>Q & A</p>
10:30 ~ 11:00	Coffee Break
11:00 ~ 12:30 (90 minutes)	<p>Session 2: Deployment of Solar Park Model beyond India</p> <p>Moderator: Priyantha Wijayatunga, Director, Energy Division, South Asia Regional Department, Asian Development Bank</p> <p>Presentations:</p>

	<ul style="list-style-type: none"> • India's National Solar Mission: Relevance of Solar Parks Ashvini Kumar, Fellow and Senior Director, Renewable Energy Technology Applications, The Energy and Resources Institute • Rajasthan-The Solar Destination and Development of Bhadla Solar Park Basant Dosi, Managing Director, Rajasthan Renewable Energy Corporation Ltd. • Solar Parks Concept, Implementation and Lessons Learned Agostinho Miguel Garcia, Principal Consultant, SunBD – Sun Business Development • Cambodia's First Solar Park Pradeep Tharakan, Principal Climate Change Specialist, Southeast Asia Regional Department, Asian Development Bank • Development of 900MW solar power plant in Punjab, Pakistan Marco Ma, Director International Business Department, Zonergy Company Ltd. • Softbank experience and plans on solar parks in India Chetan Agarwal, General Manager, Business Development, SB Energy India • Len George, Energy Specialist, South Asia Regional Department, Asian Development Bank <p>Q & A</p>
12:30 ~ 14:00	Lunch
12:30 ~ 14:00	ASEF General Meeting (Invitation Only), PDR 3 and 3a
14:00 ~ 15:30	<p>Session 3: Solar Irrigation</p> <p><i>In many rural communities, ground water is extracted through electric water pumps, which use diesel to fuel their systems. These systems not only require costly, regular servicing and import of diesel fuel, in addition they emit carbon dioxide polluting the atmosphere. In some countries this is a huge fiscal burden. However, photovoltaic water pumping (PVP) for drinking and irrigation provides an alternative and is environmentally sustainable. These factors have made Solar Water Pumping an extremely viable way to expand energy access across developing countries and rural communities. Some governments have opted to subsidize the cost of solar water pumping, increasing the pool of shared learning for this emerging technology. Even though solar water pumping is ready for mainstreaming and has started to take off in some parts of the world, its benefits remain largely unknown to communities, governments, and development institutions. In this session, the speakers will share experiences from both the government and private sector led programs on solar PV pumps. Including challenges faced by the private sector and how these were over-come.</i></p> <p>Moderator: Anthony Jude, Former Director of Energy Division of South Asia Regional Department, Asian Development Bank (ADB)</p> <p>Presentations:</p> <ul style="list-style-type: none"> • ISA and Solar Irrigation Kewal Kumar Sharma, Advisor, International Solar Alliance

	<ul style="list-style-type: none"> ▪ Solar Photovoltaic Pumping for Agricultural Irrigation Md. Sakil Ibne Sayeed, Deputy Director, Office of the Project Director, Bangladesh Rural Electrification Board ▪ Status, Challenges and Prospects of Solar Water Pumping in Nepal Ram Prasad Dhital, Executive Director, Alternative Energy Promotion Center, Ministry of Energy, Water Resources and Irrigation ▪ Promoting Utility Scale Solar Using Viability Gap Financing Modality in Nepal Abhishek Adhikary, Project Manager, Nepal Electricity Authority ▪ Solar PV Pump Research and Application in China Liu Zuming, Professor, Solar Energy Research Institute, Yunnan Normal University ▪ Dual Use – Double Harvest: The Concept of Agro-Photovoltaic Frank Haugwitz, Director, Asia Europe Clean Energy (Solar) Advisory Co. Ltd. (AECEA) <p>Q & A</p>
15:30 ~ 16:00	Coffee Break
16:00 ~ 17:00 (60 minutes)	<p>Session 4: Floating Solar <i>Floating solar has been deployed at more than 70 sites worldwide, with most installations of 1-2 MW in Asia. The world's largest floating plant, 40 MW in China commissioned in 2017, marks the transition to progressively larger plants. The technical potential in ADB developing member countries is easily 20 Giga watts. This session will provide an overview of current development trajectory in Asia.</i></p> <p>Moderator: Dan Millison, Manager, Transcendergy LLC.</p> <p>Presentations:</p> <ul style="list-style-type: none"> ▪ Floating Solar and Low-Cost Energy Storage for Developing Countries Hans-Henning Judek, J.E. Access Ltd., Japan ▪ Floating Solar Technology Ted Feierstein, Project Development Director, Asia Pacific Project Division, Trina Solar ▪ Floating Solar Potential of Central and West Asia Cindy Tiangco, Senior Energy Specialist, Central and West Regional Department, Asian Development Bank <p>Q & A</p>
17:00 ~ 17:30	<p>Summary Naoki Sakai, Secretary General of ASEF and Fellow ICMG</p> <p>Closing Remarks Yongping Zhai, Chief of Energy Sector Group of Asian Development Bank and Chair of ASEF</p>
18:00	Reception

Speakers

Yongping Zhai, Chief of Energy Sector Group of ADB and Chair of ASEF

Dr. Zhai has been working on energy development in Asia and Africa for more than 25 years. He is currently Chief of Energy Sector Group of the Asian Development Bank (ADB), in charge of overall energy policy coordination and technical support to ADB energy sector operations. He is also in charge of developing energy sector knowledge work for ADB and interacts with worldwide energy sector partners.



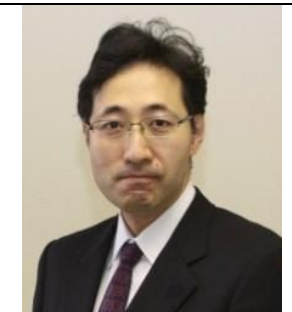
Kewal Kumar Sharma, Advisor, International Solar Alliance (ISA)

Mr. K. K. Sharma is an advisor in International Solar Alliance (ISA). He is a former Secretary of the Ministry of Human Resources Development Department of Higher Education, Government of India.



Hiroshi Okamoto, Executive Vice President, TEPCO Power Grid, Inc.

Dr. Okamoto has been working for Tokyo Electric Power Company (TEPCO) on management of transmission technologies, renewable energy integration, smart grid and regulatory affairs of electricity market reform for over twenty years. Since June 2017, he has been serving as EVP of TEPCO Power Grid Inc.



Leandro Leviste, Founder and CEO of Solar Philippines

Leandro Leviste leads Solar Philippines, a fast-growing 350-person company transforming the Philippine power industry, and accelerating the advent of solar parity worldwide. It is the nation's No. 1 solar provider and only integrated solar financing and construction company.

In 2014, it pioneered the first MW solar rooftops in the Philippines. In 2015, it built the largest locally-owned solar farm (63.3 MW). In 2016, the company started the first Philippine solar panel factory. In 2017, it plans to construct a total of 500 MW in projects and the world's largest off-grid portfolio.



Dipal Chandra Barua, Founder & Chairman, Bright Green Energy Foundation (BGEF)

Mr. Barua, Founder is a bright innovator, passionate and a proactive entrepreneur. He is the pioneer of Solar Energy in Bangladesh. Mr. Barua is the Former Deputy Managing Director (DMD) & Co-Founder of Grameen Bank in Bangladesh. In 1996, He successfully started expanding the renewable energy technology in rural Bangladesh as the Founding Managing Director of Grameen Shakti. He has designed a monthly installment based financial model at the price of kerosene which has made the Solar Home System affordable for the rural people of Bangladesh and by following the path Bangladesh has already installed over 4.5 million Solar Home System in the off grid areas of Bangladesh which is the largest solar program in the world. For his innovation and commitment to alternative energy Mr. Barua awarded the First Zayed Future Energy Prize 2009 from Abu Dhabi, UAE as the first winner of the Prize since its introduction by Abu Dhabi Government, UAE.



Hiroshi Tomita, Director, PwC Japan

Mr. Tomita is a Director with PwC Japan focused on Japanese and international Energy / Power Industry and Climate Change issues in the PPP&I team, PwC-Japan. Hiroshi has been involved in the international energy and power market since 1997 with Inter-American Development Bank (“IDB”) in Washington DC and Japan Bank for International Cooperation(“JBIC”) in Tokyo and then in Fortis Bank BNP/Paribas in Tokyo before joining PwC-Japan.



Mr. Tan He, CEO & Founder of Bangladesh Electric Vehicle Ltd.

Founded Yingtai Hold Ltd. in 2011. The company focuses on crude oil extraction and bulk crude oil trade and in the United States. He founded Bangladesh Electric Vehicle Ltd. in 2015. The company is dedicated to the R & D and operation of electric taxis, as well as the construction of distributed civilian power grids.



Dilip Kumar Jain, General Manager (Credit), Punjab National Bank

Mr. Jain is presently working as General Manager –Credit at Punjab National Bank, Head Office. He is a qualified Chartered Accountant and Company Secretary (Intermediate). He is a seasoned banker with over 30 years of rich experience and has held various important positions in bank as a Executive, Secretary to MD & CEO, Secretary to Board, Circle Head, Incumbent of Large Corporate Branch (LCB). He worked at Head Office, Zonal Office, Zonal Audit Office, Circle Office and branches of Punjab National Bank along with serving as Director of PNB Investment Services Limited. Before joining the bank he also served at Reserve Bank of India, National Housing Bank and Rajasthan Financial Corporation on different positions.



Jeevan Kumar Jethani, Director, Ministry of New and Renewable Energy

Mr. Jethani is a Director in the Ministry of New and Renewable Energy. He has been associated with power/renewable energy sector for over 25 years. During his initial professional career he was involved with power generation, transmission and distribution in the State of Rajasthan. He worked in Rural Electrification Corporation and associated with finalization of implementation framework for RGGVY, a flagship scheme for rural household electrification. In his present position at the Ministry he was a part of the core team for formulation and implementing National Solar Mission and also renewable power related regulatory framework in the country. He was associated with the formulation of Green Energy Corridors project and its implementation framework. While handling Wind Energy Division he was instrumental to preparation of Repowering Policy, National Wind-Solar Hybrid Policy, Wind bidding scheme and its implementation guidelines, Onshore Wind Power Development Guidelines, etc. Presently he is looking after implementation of rooftop solar and off-grid solar projects in the country.



Priyantha Wijayatunga, Director of Energy Division, South Asia Regional Department, Asian Development Bank

Mr. Priyantha holds a degree in Electrical Engineering from the University of Moratuwa Sri Lanka and a Doctorate in Power Economics from Imperial College



London where he was a Beit Scientific Research Fellow. He joined the Asian Development Bank in 2008 and he is currently the Director, South Asia Energy Division. He has contributed extensively in energy sector policy and regulatory activities over 25 years and has co-authored over 75 publications. He was the founder Director General of the Public Utilities Commission of Sri Lanka and a key contributor to the Sri Lanka Electricity Act 2009 and Sri Lanka Sustainable Energy Authority Act 2007. He was a lead author of the Sri Lanka Energy Policies and Strategies. He was also a Senior Professor of Electrical Engineering and the Chairman of South Asia Forum for Infrastructure Regulation. He is a Member of Institute of Engineering Technology (IET), London, a Chartered Electrical Engineer and a Fellow of the Institution of Engineers Sri Lanka. Also he is a Senior Member of the Institution of Electrical and Electronic Engineers (IEEE), US.

Agostinho Miguel Garcia, Principal Consultant, SunBD-Sun Business Development

Mr. Garcia is a Principal Consultant of SunBD – Sun Business Development, a Portuguese engineering and consultancy firm exclusively in Renewable Energies.

The guest speaker has more than 15 years of technical experience developing, designing and constructing solar power plants (PV and CSP) as well as developing solar thermal and PV equipment, though his knowledge and experience also spans almost all Renewable Energies as well as Energy Efficiency. He has experience across all continents and more than 20 countries, including consultancy on solar power for investors, banks, EPC companies, solar manufacturers, governments and multi-lateral development institutions including the Asian Development Bank. Additionally he is an expert in solar parks development in India and South Africa, having designed and supported the development and implementation of Bhadla Solar park in Rajasthan. He has a Masters in Physics Engineering with a thesis on solar power from Instituto Superior Técnico in Portugal obtained in 2000.

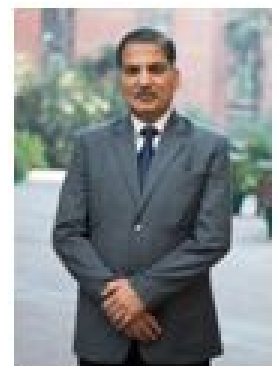


Ashvini Kumar, Senio Fellow, TERI and Senior Director, Renewable Energy Technology Applications

Mr. Kumar recently joined TERI as Senior Fellow and Senior Director, Renewable Energy Technology Applications. He superannuated recently from the post of the Managing Director of the Solar Energy Corporation of India Ltd. (SECI), which is a Government of India Enterprise set up for implementation of policies on solar, wind, and other RE. Dr. Kumar worked with SECI as the Director (Solar) from October 2012 and thereafter as MD until July 2017. During his tenure at SECI, main focus has been on design and implement procurement of solar and wind power competitively.

Prior to SECI, he has worked at the Ministry of New and Renewable Energy in various capacities for over 26 years leading programmes related to National Solar Mission and R&D coordination. Dr. Kumar obtained his Doctorate Degree in Solar Energy from IIT Delhi in 1981 and has continued to carry out scientific work thereafter at IIT Delhi and later at Solar Energy Centre, now rechristened as National Institute of Solar Energy.

He has co-authored three books published by International reputed publishers, several review articles and over 50 research papers in peer reviewed journals.



Basant Dosi, Managing Director, Rajasthan Renewable Energy

Mr. Dosi is working as Managing Director, Rajasthan Renewable Energy Corporation, Government of Rajasthan since January 2014. Rajasthan Renewable Corporation is a Nodal Agency for formulating policies and promote renewable energy in the State. As MD, Rajasthan Renewable Energy Corporation, he was closely associated with development of Solar Park at Bhadla, Jodhpur, Rajasthan.

He joined Rajasthan Administrative Service in 1982 and promoted to Indian Administrative Service in 2009. I hold various administrative positions like Sub-Divisional Magistrate, Additional District Collector, District Supply Officer, Regional Transport Officer, Additional Commissioner, Jaipur Development Authority and Deputy Secretary to Government in various departments before joining Rajasthan Renewable Energy Corporation



Pradeep Tharakan, Principal Energy Specialist, Southeast Asia Regional Department, Asian Development Bank

Mr. Tharakan is a Principal Energy Specialist within Asian Development Bank's Southeast Asia regional department. In this role, he manages ADB's energy sector programs in Thailand, Malaysia, Cambodia and Laos. Pradeep has spent the last 8 years working with senior government officials, private sector entities and the civil society in ADB's member countries, to design and deliver large public investment programs in clean energy, and provide policy advice. Pradeep has a PhD in Energy and Natural Resources Management, and master's degrees in Business Administration, and Public Policy.



Ma Yu, Director, International Business Department, Zonergy Company Limited

Mr. Ma is the Director for International Business Department (Professional Engineer), Zonergy Company Limited (ZTE), People's Republic of China (PRC). Having almost 10 years of professional career in energy sector. He is currently working, as team lead of Pakistan projects i.e. 9× 100 MW on grid solar power project located at Quaid-e-Azam Solar Park Bahawalpur, Pakistan under PRC-Pakistan Economic Corridor platform.

In Pakistan, he has also worked with Asian Development Bank (ADB) off-grid project i.e. "ADB-Wind/Pilot/Punjab/Pakistan-ICB01, "(Small Wind-Solar Hybrid Power System /Pilot Project in Khushab Punjab, Pakistan).

He has a wide experience of energy sector by working in different countries for many power projects and also dealing with the Government and international organizations.



Chetan Agarwal, Renewable Energy Professional, SB Energy India

Mr. Chetan is a renewable energy professional employed by SB Energy India. He was part of the founding team of SoftBank's foray into renewable energy in India. He has been closely involved in all of SoftBank's solar power projects in solar parks in India: including 350MW in AP (commissioned), RJ400 (under construction), RJ200 (under construction), KK200 (under construction) and AP250 (under construction). He was also a key member of SoftBank's team which has signed a MOU with the Kingdom of Saudi Arabia for installing 200GW of solar power in the Kingdom.



Len George, Energy Specialist, South Asia Regional Department, Asian Development Bank

Mr. Len George is Energy Specialist at the Asian Development Bank, South Asia Department. He works on projects in the region including India, Bangladesh and the Maldives. He has been involved in processing the first ADB administered Clean Technology Fund (CTF) project in India in the state of Rajasthan and the first ADB administered Scaling Up Renewable Energy Project (SREP) in the Maldives. Prior to ADB, he worked with an energy sector-consulting firm. Mr. Len holds a degree in electrical engineering from Delhi University and a post-graduate diploma in management from the Indian Institute of Management, Ahmedabad.



Anthony Jude, Former Director of Energy Division of South Asia Regional Department, Asian Development Bank (ADB)

Mr. Jude is currently a free-lance energy consultant working on energy/power projects in Cambodia, Laos, Malaysia, India and Nepal. Prior to being an energy consultant, Mr. Jude had worked for over 24 years with the Asian Development Bank (ADB) in various senior positions prior to his early retirement in 2016. Work experiences include leading energy sector knowledge management within ADB; developing firm infrastructure pipeline of energy projects within Southeast Asia and South Asia Departments; developing gas pipelines; and cross-border power interconnection projects including supporting regional institutions in regional planning; provided support for policy-based loans linked to specific sector reforms (energy, transport and financial sectors); and promoting energy policy and institutional strengthening, energy efficiency and renewable energy projects, including power sector reforms.

While in ADB, he was the Chair of the Asia Solar Energy Forum for 2-years and helped coordinate the holding of international forums to promote solar energy development and shared new technology development including energy storage systems.

He has authored three ADB publications on Energy Data and Electric Utilities Data Book for the Asia and Pacific Region. Co-authored two ADB publications, one on Solar Photovoltaic Technologies, Economics, and Institutional Arrangements, and other on Energy Efficiency, and several other energy articles published in Korea, and Germany.



Md. Sakil Ibne Sayeed is the Deputy Director (Technical), Bangladesh Rural Electrification Board

Mr. Sayeed is a Deputy Director (Technical) in Bangladesh Rural Electrification Board (BREB). As a Project Director, he oversees the “Solar Photovoltaic Pumping for Agricultural Irrigation” project funded by ADB and GoB. Sayeed holds a master’s degree in engineering from Kyung Hee University, South Korea and Graduate Diploma in Purchasing and Supply from UK. He has more than thirteen years of experience among which more than eight years in renewable energy sector (especially in solar energy). During this period he has received several national and international training on renewable energy. He has also participated in several national and international workshops on renewable energy.



Ram Prasad Dhital, Executive Director, Alternative Energy Promotion Center

Mr. Dhital serves as the Executive Director of Alternative Energy Promotion Center (AEPC) overseeing operations, strategic and technical initiatives in renewable energy sector of Nepal. Mr. Ram has nearly two decades of experience in energy policy and design of Solar, Biogas, clean cooking and Hydro power in sustainable manner. He started his career as Technical Officer in Rural energy Development Project, UNDP Nepal in 1998. With successful completion of two International assignments as Renewable Energy Advisor, National Area Based Development Program, Afghanistan and Rural Energy Technical Advisor, Vanuatu Energy for Rural Development Program, Vanuatu respectively Mr. Ram has excel in the roles undertaken and shared the knowledge and learning cross border by leaving a remarkable change and progress in Renewable Energy sector of Nepal; deploying renewable energy to more than one million beneficiaries nationwide.

He completed his Bachelors in Civil Engineering, 1997 from Pulchock Engineering College, Nepal and holds Master's degree in Renewable Energy, 2002 from University of Oldenburg, Germany. Currently, enrolled for Phd degree in renewable energy, Mr. Ram has more than 15 research, publication and conference paper written and presented at National and International platform globally representing Nepal.



Abhishek Adhikary, Project Manager, Utility Scale Grid-tied Solar Project, Nepal Electricity Authority.

Mr. Adhikary has been working for Nepal Electricity Authority (NEA) on project management of distribution & transmission technologies, energy access, renewable energy and energy efficiency for over twelve years.

He is currently working, as the project manager of Utility Scale Grid-tied Solar Project. The Project is based on the viability gap funding mechanism that promotes private sector participation in the grid tied solar sector in Nepal.



Zuming Liu, Professor, Solar Energy Research Institute, Yunnan Normal University

Ph. D., Aug 1986 to now, Solar Energy Research Institute, Yunnan Normal University, People's Republic of China (PRC), professor, former Vice Director of the Institute, Former chairman of Committee of Renewable Energy of Mekong Region, general manager of Yunnan Zhuoye Energy Co. Ltd.

He has worked on thin film, crystalline silicon solar cells, photovoltaic power system, PV pumps, PV standards and published more than 100 papers. 114 PV pump systems have been built by his group with more than 3.5MW PV modules. Several new world records of the highest hydraulic head and maximum scale of PV pump system have created by his group.



Frank Haugwitz, Director, Asia Europe Clean Energy (Solar) Advisory Co. Ltd.

Frank Haugwitz, Asia Europe Clean Energy (Solar) Advisory Co. Ltd. (AECEA), is based in Beijing, People's Republic of China (PRC) since 2002. Mr. Haugwitz is an independent solar energy consultant known for his insights into the workings of the Chinese solar market. He advises foreign entities on solar market developments across Asia in general and PRC in particular. He is a frequent speaker at international conferences and is Intersolar's head of global conference development since 2010. He served three years as the elected Vice-Chairman of the Renewable Energy Working Group of the European Chamber of Commerce in China till 2016. Co-founded in 2011, he is director market & policy of the Asian PV Industry Association (AVPIA) located in Singapore.



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Dan Millison is the Manager of Transcendery L.L.C., a private consultancy established in 2008 to provide sustainable infrastructure solutions. He has more than 30 years professional experience with almost 20 years of experience in clean energy development. While employed at ADB from 2002-2007, he helped mainstream carbon finance and other new financing modes and instruments into ADB's lending operations. Since 2011 he has assisted clients in mobilizing more than \$ 5 billion total investment in sustainable transport (public transport connectivity and electric vehicles), renewable energy (RE micro-grids, utility-scale geothermal, solar, and wind), combined cycle natural gas generation, and grid expansion and efficiency improvement projects including use of advanced high-temperature low-sag conductors; this investment portfolio includes more than \$1 billion of co-financing from dedicated climate change funds. He holds a M.S. in Civil Engineering and a B.A. in Geological Sciences, both from Northwestern University in Evanston, Illinois.



Hans-Henning Judek, J.E. Access Ltd., Japan. Hans is a long-term resident of Japan and engaged in the "greening" of the Japanese power landscape. He became known through his engagement in the aftermath of the Fukushima accident. He is strongly engaged in the Philippines and operates a joint venture for floating solar and low-cost energy storage projects in Chennai, Tamil Nadu for projects in South and SE Asia



Ted Feierstein, Project Development Director, Asia Pacific Project Division, Trina Solar

Mr. Feierstein has been focused on renewable energy project development, and related technical solutions and services, since 2008. He has worked for Trina Solar, SunEdison, DNV GL, and IFC. He earned his MBA from UCLA Anderson and works interchangeably in Mandarin Chinese.



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Cindy Cisneros Tiangco, Senior Energy Specialist, Energy Division, Central and West Asia Department, ADB

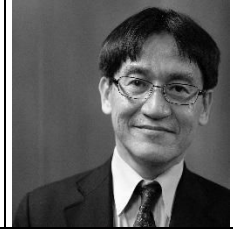
Dr. Tiangco's 25-year work experience includes 7 years in ADB, leading clean energy projects comprising solar power generation in Uzbekistan and Afghanistan, and energy efficiency in Kazakhstan and Pakistan. Cindy now leads the floating solar initiative to build pilots in Afghanistan, Azerbaijan and Kyrgyz Republic, and Afghanistan's second solar grant to build solar rooftop and mini-grids. Prior to ADB, Cindy was a consultant to ADB, World Bank, AFD, UNDP/GEF and the Philippine Climate Change Commission. Cindy holds PhD, master's, and bachelor's (cum laude) degrees in Engineering.



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Mr. Naoki Sakai, Secretary General of ASEF and Fellow ICMG

Mr. Sakai experienced in Asian Development Bank as an expert of organizer at energy related project over 17 years. Now, he is leading energy sharing based on blockchain with Japanese Government.



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For any questions, please contact:

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[aapilado.consultant@adb.org]