



# Learning from the PRC's Clean Energy Innovations

ADB-PRC Regional Knowledge Sharing Initiative  
At the Asia Clean Energy Forum 2025

2 June 2025 • Auditorium Hall 4  
ADB Headquarters, Manila, Philippines



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Asian Development Bank - Regional Knowledge Sharing Initiative  
2 June 2025 • 2 p.m. • Auditorium Hall 4, ADB Headquarters



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This seminar will review the progress in clean energy innovation and potential to support regional development in the People's Republic of China (PRC). By showcasing its practical approaches and proven solutions in the clean energy sector, the event will explore scalable models and foster knowledge-sharing among developing member countries of the Asian Development Bank (ADB).

The first panel discussion will explore the successful clean energy innovations in the PRC and explore how these experiences can be replicated in other DMCs. The presenters, Lin Lanlan, Deputy Director General, Department of Standards and Norms, Ministry of Housing and Urban-Rural Development, PRC, and Bai Quan, Director, Energy Efficiency Center, Energy Research Institute, National Development and Reform Commission, will provide an overview of the strategic planning and innovation path that has led to significant advancements in clean energy within the PRC. The discussion will focus on identifying key factors that contributed to these successes and how they can be adapted to suit the unique contexts of other DMCs.

Following this, the second panel discussion will examine the role of ADB in supporting clean energy innovations across the region. Joonho Hwang, Director, Energy Sector Office, ADB, will highlight ADB's ongoing clean energy projects in the PRC, including initiatives in energy efficiency, financing, zero-carbon industrial parks, solar energy, heating, and non-sovereign projects. The discussion will focus on how ADB can leverage its experience and resources to support similar projects in other DMCs, fostering regional collaboration and accelerating the transition to clean energy. Participants will gain insights from PRC's policy makers and experts and discuss how ADB can help accelerate the adoption of clean energy technologies across the region.

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## AGENDA

14:00-14:10 **Opening Remarks**

**Weihua Liu**, Executive Director for PRC, Asian Development Bank

14:10-15:10 **Panel Discussion 1: What experiences from PRC's clean energy innovations can be replicated in other DMCs**

Moderator: **Aiming Zhou**, Deputy Country Director, ADB PRC Resident Mission

Presentation: Setting the Context (20 minutes)

Clean Energy Innovation Path and Strategic Planning in the PRC

Presenters:

- **Quan Bai**, Director, Energy Efficiency Center, Energy Research Institute, National Development and Reform Commission (online)
- **Lanlan Lin**, Deputy Director General, Department of Standards and Norms, Ministry of Housing and Urban-Rural Development, PRC

Panelists:

- **Helmut Fischer**, Executive Director, ADB
- **Yasir Arrfat**, Senior Energy Expert, Prime Minister's Office, Government of Pakistan
- **Yu Wang**, Associate Professor, Institute of Energy, Environment and Economy, Tsinghua University
- **Charles Sun**, CEO, Mingyang Smart Energy Philippine Corporation

Q&A (Tea Break)

15:10-16:00 **Panel Discussion 2: What would be ADB's role in supporting clean energy innovations in the region**

Moderator: **Kelly Bird**, Advisor, East Asia Department, ADB

Presentation: Setting the Context (10 minutes)

ADB's clean energy projects in PRC

Presenter: **Joonho Hwang**, Director, Energy Sector Office, ADB

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## Panelists:

- **Margalita Arabidze**, Head of Energy Efficiency and Renewable Energy Policy and Sustainable Development Department, Ministry of Economy and Sustainable Development of Georgia
- **Mylene Capongcol**, Assistant Secretary, Department of Energy, Philippines
- **Priyantha Wijayatunga**, Senior Director, Energy Sector Office, ADB
- **Daniel Wiedmer**, Director, Infrastructure Finance Division 2, Private Sector Operations Department, ADB

## Q&A

16:00-16:05

## Closing Remarks

**Scott Morris**, Vice-President (East and Southeast Asia, and the Pacific), ADB

## Group Photo

## BIOGRAPHIES

### Opening Remarks

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#### **Weihua Liu**

##### **Executive Director for PRC, ADB**

Mr. Liu is currently the Executive Director of the PRC ED Office in the Asian Development Bank since January 2021. As a Board member, he is the current Dean and served as the Chair of the Development Effectiveness Committee and Vice-Chair of the Ethics Committee. Prior to this, he acted as the deputy director general of the Department of International Economic and Financial Cooperation, MOF. Simultaneously, he was the Executive Director of IFAD for China.

He has engaged in international economic and financial cooperation for more than 20 years. He assumed the position of director in various divisions of the International Department, as well as the Department of International Economic and Financial Cooperation, MOF. He also worked as the senior advisor to Executive Director, China ED Office at the World Bank Group for several years.

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### Panel Discussion 1

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#### **Aiming Zhou**

##### **Deputy Country Director, ADB PRC Resident Mission**

Aiming Zhou currently is the Deputy Country Director in the PRC Resident mission since April 2023. He was the Senior Advisor to the Vice President (Operations 1) at Asian Development Bank (ADB) from January 2020 to April 2023. He supported VP for operations in the South Asia Department and the Central and West Asia Department and committed to achieving a prosperous, inclusive, resilient, and sustainable regions.

He was a Principal Energy Specialist and a Senior Energy Specialist in Energy Division of South Asia Regional Department (SAEN) of ADB from 2016 to 2019. Before joining SAEN, he was a Senior Energy Specialist (2013-2015) and an Energy Specialist (2009-2012) in Sustainable Development and Climate Change Department, where he oversaw ADB's clean energy activities, coordinated ADB's efforts in clean energy development, climate change mitigation and provided technical support to ADB's energy related



operations in low carbon development. From 2011-2015, Aiming Zhou served as the chairperson of Asia Clean Energy Forum.

Prior to joining ADB in 2009, he worked with Alliance to Save Energy (2008-2009), University of Delaware (1999-2008) in the United States and Energy Research Institute of National Development and Reform Commission in People's Republic of China (1997-1999). He received a Doctoral degree in Energy and Environmental Policies from University of Delaware. He also holds master's degree in System Engineering (Economics) from Tsinghua University, and bachelor's degree in Energy Engineering from University of Science & Technology Beijing.

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### **Bai Quan**

**Director of Energy Efficiency Center of Energy Research Institute (ERI)  
of National Development and Reform Commission (NDRC)**

Professor. Dr. Bai Quan is specialized in the research of energy efficiency, low carbon development and energy technology development strategies, planning, and policies. He is the Council Member of China Energy Research Society.

Prof. Bai is a leader of many important policy research topics, such as study of China's 13th and 14th Five-year Energy Conservation and Emission Reduction plan, Pathway and Measures of Carbon Peaking and Carbon Neutral in China, China's 12th Five-year Energy Conservation and Emission Reduction Plan, etc. From year 2018-2023, He acted as Coordinating Leading Author (CLA) in IPCC's 6th Assessment Report of Global Climate Change and specialized in the assessment of building low carbon transition.

Prof. Bai has published over 60 articles in Chinese and international journals, and received over 10 ministerial awards from Chinese government, such as National Development and Reform Commission or National Energy Bureau.

Prof. Bai is good at English both in writing and speaking and can speak some German and Japanese. He had rich international cooperation experience, and close relationship with international organizations and research institutions in United States and Japan, and such as UNDP, World Bank, Asian Development Bank, International Energy Agency, Lawrence Berkeley National Lab of U.S., GIZ of Germany, Institute of Energy Economics of Japan etc.



### **Lin Lanlan**

**Deputy Director General, Department of Standards and Norms  
Ministry of Housing and Urban-Rural Development, PRC**

She has served as Deputy Director of the Department of Rural and Urban Construction and Director of the Department of Standards and Norms. During her tenure, she facilitated the issuance of the Opinions on Promoting Green Development in Urban and Rural Construction by the General Office of the CPC Central Committee and the General Office of the State Council; spearheaded the drafting of the Work Plan for Accelerating Energy Conservation and Carbon Reduction in the Construction Sector, which was submitted for approval and subsequently disseminated by the General Office of the State Council; collaborated with the National Development and Reform Commission to finalize and issue the Implementation Plan for Carbon Peaking in Urban and Rural Development; oversaw the ministry-provincial joint initiative to develop the master planning and design for the Boao Zero-Carbon Demonstration Zone in Hainan, achieving 18 engineering construction and renovation targets across 8 major categories; and achieved notable accomplishments in institutional innovation, integration of technical measures, and policy-standard leadership.

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### **Helmut Fischer**

**Executive Director, ADB**

Helmut Fischer was appointed Executive Director representing Austria, Germany, Luxembourg, Türkiye and the United Kingdom, effective 1 August 2024.

A German national, Mr. Fischer has three decades of professional experience as civil servant working for the German Ministry for Economic Cooperation and Development (BMZ). Mr. Fischer was formerly an ADB Board member from 2017 until 2020. Prior to his reappointment to ADB, he was head of BMZ's Afghanistan and Pakistan Division and Deputy Commissioner for Asia. Furthermore, he gained comprehensive expertise in development cooperation both with the private sector and with a number of ADB's regional member countries. He spent more than three years in Afghanistan as Counsellor for Development Cooperation.

Mr. Fischer earned his Bachelor of Arts in Public Administration degree from the University of Applied Sciences for Public Administration and Management of North Rhine-Westphalia in Cologne, Germany; and a diploma for higher service at the Federal Academy of Public Administration in Brühl, Germany.



### **Yasir Arrfat**

#### **Senior Energy Expert, Prime Minister's Office, Government of Pakistan**

Yasir Arrfat is a seasoned policy and energy expert with over 15 years of service in the Federal Government of Pakistan. Currently a Senior Technocrat (MP-II Scale) at the Prime Minister's Office, he leads strategic initiatives in public policy, energy sector transformation, infrastructure, and government-to-government (G2G) mega investments.

Previously, Arrfat played a pivotal role in implementing China-Pakistan Economic Corridor (CPEC) projects as a Senior Sector Expert at the Planning Commission of Pakistan, where he was instrumental in fostering bilateral cooperation in energy and infrastructure. His career also includes significant private sector experience with multinational companies such as PARCO, Coca-Cola, P&G, Comstar ISA, and Tuwairqi Steel Mills.

He holds an MPA from Tsinghua University, an MBA from KSBL, and a bachelor's in electrical engineering from NUST. Internationally recognized, Arrfat has received fellowships from the U.S. Department of State, China's International Cooperation Centre, and most recently, was selected as one of only 16 global fellows at the Asia Global Institute, The University of Hong Kong.

Arrfat's work continues to drive Pakistan's energy transition, economic development, and global investment partnerships.



### **Yu Wang**

#### **Associate Professor, Institute of Energy, Environment and Economy Tsinghua University**

Yu Wang joined Tsinghua University on 1st July 2006. She specializes in energy system analysis, with a particular focus on renewable energy resource assessment and RE policy research. She was the chief author and lead author of the Third, Fourth and Fifth National Assessment Report on Climate Change.

Yu Wang was also a Senior Visiting Scholar at the University of Cambridge and a Visiting Scholar at the Institute for Sustainable Development and International Relations in France.

Her research on the allowances allocation for power generation sector in the national carbon market was adopted by the Chinese Ministry of Ecology and Environment and won First Prize in the Eighth Award for Outstanding Scientific Research Achievements of Colleges and Universities (Humanities and Social Sciences), awarded by the Ministry of Education.





**Charles Sun**

**CEO, Mingyang Smart Energy Philippine Corporation**

With over 15 years of overseas work experience, specializes in the Southeast Asian power market, Charles Sun has delivered numerous successful projects in the Philippines, Malaysia, Indonesia, Thailand, Papua New Guinea, Israel, and other countries.

He pioneered Mingyang's breakthrough in the Philippine wind turbine market, paving the way for Chinese wind turbines to enter the Philippine market.

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## Panel Discussion 2

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**Kelly Bird**

**Advisor, East Asia Department, ADB**

Kelly Bird is a national of New Zealand. As an Advisor in ADB's East Asia Regional Department (EARD), he is responsible for supporting the Director General of EARD in managing the regional department and strategic oversight of country programs and relations and overseeing the East Asia knowledge program. Prior to this position, Kelly was ADB's Country Director for the Philippines from January 2018 to June 2023, and the Director for Public Management, Financial Sector and Trade Division in the Southeast Asia Department from December 2014 to January 2018. He graduated from the Australian National University in 1999 with a PhD in Economics.



**Joonho Hwang**

**Director, Energy Sector Office, ADB**

Joonho Hwang is the Director, Energy Sector Office, responsible for the East, Central, and West Asia regions of the Asian Development Bank (ADB).

He has over 25 years of work experience including more than 15 years in ADB where he has progressively assumed various posts. As the Project Administration Unit (PAU) Head of CWEN until 2018, he led and supported the team in processing more than 30 projects and administering more than 40 projects for a \$8 billion portfolio.

In 2018-2020, he led the Cambodia Resident Mission team delivering the country operation of all sectors and preparing the country partnership strategy and country operation and business plan. He assumed the current position in August 2020.

He holds a Doctorate in Civil Engineering. Before joining ADB, he worked as a licensed Professional Engineer in the United States, and led multidisciplinary teams for projects in oil/gas, power, and transport sectors.

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### **Margalita Arabidze**

**Head of Energy Efficiency and Renewable Energy Policy and Sustainable Development Department, Ministry of Economy and Sustainable Development of Georgia**

Margalita Arabidze is a distinguished leader in the energy sector, currently serving as the Head of the Energy Efficiency and Renewable Energy Policy and Sustainable Development Department at the Ministry of Economy and Sustainable Development (MoESD). With over two decades of experience in the field, she has been a driving force behind impactful projects and initiatives contributing to the advancement of energy and climate goals.

As an associate professor at the Georgian Technical University, Ms. Arabidze combines academic expertise with practical experience. Her current focus includes spearheading efforts on secondary legislation for energy efficiency and renewable energy, contributing to the National Energy Policy, and actively participating in the development of the Integrated National Energy and Climate Plan 2021-2030 (NECP). Additionally, she is deeply engaged in Sustainable Development Goal 7 (SDG 7) initiatives.

Ms. Arabidze has played a pivotal role in fostering collaboration with local and international stakeholders, including donors, investors, International Financial Institutions (IFIs), and various international organizations. Her commitment to international cooperation is evident through her role as the focal person for Georgia in organizations such as IRENA, EnC (Chair of RE Coordination Group), UNECE (vice-chair of EE, RE Working Group), IAEA, and others. Under her leadership, the Energy Efficiency and Renewable Energy Policy and Sustainable Development Department has achieved significant milestones. Notably, she has overseen the development and adoption of crucial legislation, including Renewable Energy (RE), Energy Efficiency (EE), and Energy Performance of Buildings (EPB) laws. Ms. Arabidze has also played a key role in the formulation of the National Renewable Energy Action Plan (NREAP) and the National Energy Efficiency Action Plan (NEEAP) for 2019-2020.

Ms. Arabidze's influence extends beyond national borders, contributing to Georgia's integration into European and Euro-Atlantic structures. Her efforts align with the directives outlined in the Association Agreement between Georgia and the European Union. She actively directs the development and implementation of short, medium, and long-term programs, adhering to

international standards and promoting the preferential utilization and development of renewable energies.

Moreover, Ms. Arabidze coordinates the Ministry's actions related to the United Nations Sustainable Development Goals, emphasizing sustainable development, fossil heating, energy efficiency, climate change, and renewable energies. She plays a crucial role in the preparation of sustainable development strategies, state programs, and supporting legislation, demonstrating her commitment to a green economy.

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### **Mylene Capongcol**

#### **Assistant Secretary, Department of Energy, Philippines**

With nearly four decades of experience in planning and design, advisory services, policy development, and project management, she has been instrumental in driving development strategies and reforms in the power and renewable sectors, including the country's total electrification program.

As the DOE Assistant Secretary, she primarily oversees the development and execution of critical and innovative policies, plans, and programs aimed at promoting and accelerating the exploration, development, and utilization of Renewable Energy (RE) resources in the country. This led to the issuance of policies, plans, programs and guidelines that have opened new investment opportunities, facilitating greater penetration of new and clean RE technologies and job creation.

Assistant Secretary Capongcol has also played a key role in bringing into forefront Offshore Wind Development and the Smart Grid Policy for the Philippine Power Industry.

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### **Priyantha Wijayatunga**

#### **Senior Director, Energy Sector Office, ADB**

Priyantha has over 35 years of professional experience including 17 years in ADB. He served as the Director, South Asia Energy Division and Chief of Energy Sector Group prior to assuming the current position in June 2023. Before joining ADB, he served as the founder Director General of the Public Utilities Commission of Sri Lanka and a Senior Professor of Electrical Engineering at the University of Moratuwa. He has extensively contributed in the areas of energy policy and regulation, energy planning and clean energy development.

Priyantha holds a Doctorate in Power Systems Economics from the Imperial College London and had been a regular Academic Visitor at Imperial College London during the period 1993-1998. He was a Chairman of the South Asia Forum for Infrastructure Regulators (SAFIR) and was also a member of the

Board of Directors of the Ceylon Electricity Board and Sri Lanka Sustainable Energy Authority. He was an Advisory Board member of the Melbourne Energy Institute at the University of Melbourne.

He is a Fellow of the Institution of Engineers Sri Lanka, a Senior Member of the Institute of Electrical and Electronic Engineers (IEEE), a Chartered Electrical Engineer and a Member of the Institute of Engineering Technology (IET), UK. He is a Past President of the Sri Lanka Energy Managers Association.



**Daniel Wiedmer**

**Director, Infrastructure Finance Division 2, Private Sector Operations Department, ADB**

Mr. Wiedmer is a finance professional with 20 years of experience in climate finance in emerging markets in Asia and Africa. As Director of the Private Sector Infrastructure Division 2, he leads ADB's infrastructure finance team responsible for Southeast Asia, East Asia, and the Pacific Islands. His core competencies include managing corporate and project finance transactions in renewable energy, electric mobility, circular economy recycling, conventional power, waste-to-energy, telecom and water treatment, as well as donor-funded blended finance and technical assistance programs.

In his previous role as the Unit Head for the Greater Mekong Region, Mr. Wiedmer established ADB's private sector regional hub office in Bangkok. He built and led a team to sign over 40 transactions, including innovative projects such as ADB's first MRT rail transaction, first integrated renewables and battery energy storage project, first Blue Loan for recycling, first C&I rooftop financing and the first cross-border wind power project in Asia. His first role at ADB was debt and equity financing of financial institutions and investments in private equity funds.

Before joining ADB in 2004, Mr. Wiedmer worked for SECO, Switzerland, where he made investments in financial institutions and funds in Africa. Prior to his tenure at SECO, he was employed by AXA Group. He holds a Master of Science in Development Management from the London School of Economics, as well as an MBA with Distinction from Kent Business School. Additionally, he is a CFA Charterholder and a fluent English, German, and French speaker.

## Closing Remarks

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**Scott Morris**

**Vice-President (East and Southeast Asia, and the Pacific), ADB**

Mr. Scott Morris joined ADB on 1 November 2023 and has significant prior leadership experience in both government and the non-profit sector. He is currently responsible for overseeing ADB's operations in East Asia, Southeast Asia, and the Pacific.

Mr. Morris is an expert on development finance and debt policy with more than 25 years of experience in international economic policymaking and research. Prior to joining ADB, Mr. Morris was a Senior Fellow at the Center for Global Development (CGD) in Washington, DC. At CGD, he led work on multilateral and bilateral development finance, including the role of concessional finance in supporting low-income and climate-vulnerable countries.

Mr. Morris previously served in senior roles in the US government, including as Deputy Assistant Secretary for Development Finance and Debt in the US Treasury. In this role, he oversaw the participation of the US in multilateral development banks, including ADB, as well as US participation in the Paris Club. Prior to his US Treasury appointment, he managed the international and monetary policy portfolio of the Committee on Financial Services, US House of Representatives.

Mr. Morris holds a master's in public policy studies (international economics) from the University of Michigan, Institute for Public Policy Studies, in Michigan, US. He obtained his Bachelor of Arts degree in Government from Franklin and Marshall College in Pennsylvania, US.

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