



Asia-Pacific Dialogue on Clean Energy Governance and Regulation June 21-22, 2010 ADB Headquarters, Manila

Objectives: The Asia-Pacific Dialogue on Clean Energy Governance and Regulation, to be held during ADB's Asia Clean Energy Forum in June 2010, seeks to share experience that will lead to improved Governance, Planning, Policies and Regulations for Clean Energy in Asia and the Pacific, and initiate a dialogue for sharing information and considering the need for ongoing networking, twinning arrangements, and capacity building within the Asia and Pacific region to this end. To do so, it will

- bring together energy and environmental ministry officials, energy regulators, and private sector and civil society participants from Asian jurisdictions, as well as key experts from developed countries and development institutions to examine achievements and challenges in promoting Clean Energy;
- consider Clean Energy resource planning, policies and regulations to promote energy efficiency (EE) and renewable energy (RE) (including EE and RE markets), and policies and regulations to ensure transmission and distribution networks facilitate rather than inhibit clean energy; and
- convene electricity regulators to discuss Clean Energy as an extension of ADB's work establishing a South-east Asian Electricity Regulators Network.

Participants: The Dialogue will bring together a rich collection of policy-makers, regulators, private sector representatives, academics, civil society representatives and other energy experts from Australia, Bangladesh, Brazil, India, Indonesia, Germany, Pakistan, the Peoples' Republic of China, the Philippines, Singapore, Thailand, the United States, Vanuatu, Vietnam, among others countries, to share cutting edge experiences, thinking and practice on clean energy regulation and governance. Their sharing will be supported by key development partners including the Asian Development Bank, the United States Agency for International Development, the World Resources Institute, the Regulatory Assistance Project and the International Energy Agency.

Approach: Good governance and regulation for clean energy covers many issues, including energy services, energy access for all, EE, RE, clean energy for reducing air-pollution reduction, carbon capture and storage, and some would argue and nuclear power. This year, the dialogue will focus on electricity governance and regulation that is principally directed toward addressing climate change challenges by promoting resource planning, EE and RE, and the resolution of grid system issues.

The main plenary sessions will be split into principle themes: the Need for Clean Energy Regulation: Policy and Regulatory Planning for a Clean Energy Resource Mix, Regulation to Promote EE and Demand Side Management, Regulation to drive RE, Markets and Mechanisms for Clean Energy; and Integrated Grid Systems. They will tackle these themes by focusing on deep country case studies of successful and challenging experience from the perspective of different stakeholders.

Background. The Dialogue builds on ADB's earlier work on energy governance and regulatory reform. In March 2008, ADB supported a regional conference on Clean Energy, Governance, and Regulation, organised by the World Resources Institute (WRI), Prayas Energy Group, and the Renewable Energy and Energy Efficiency Partnership and hosted by the Lee Kuan Yew School of the National University of Singapore. Since January 2009, ADB has conducted work on enhancing effective regulation for water and energy in South-east Asia and the Pacific, has conducted national workshops in South-east Asian countries, and which supports a regulatory network for South-east Asian energy regulators. ADB has also partnered with WRI and the Regulatory Assistance Project and is currently partnering with the International Energy Agency.

The Dialogue also builds on work initiated in early 2010 by the United States Agency for International Development (USAID) to support development of a platform for sharing information and experiences in the design and implementation of effective policies and regulations in the area of energy efficiency and renewable energy. USAID is supporting national roundtables and workshops to work with policymakers and key stakeholders to prioritize technical assistance needs and opportunities for twinning exchanges between countries in the Asia region.

Contacts :

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Key Questions for the Plenary Sessions

Session 1: The Need for Clean Energy Regulation

- What are the key scientific and economic basis for policy and regulatory action promoting clean energy?
- What are the technologies and how must policy and regulatory action be directed to deploying these technologies?

Session 2: Clean Energy Resource Mix

- How can we define and most efficiently and effectively meet our needs for electricity based energy services?

Session 3: Regulation to Promote Energy Efficiency and Demand Side Management

- How can we can promote energy security more efficiently and produce lesser emissions?
- What are the key regulatory barriers and issues that need to be addressed in order to facilitate significant increases in efficiency investments?

Session 4: Regulating Market and Incentives Mechanisms for Clean Energy

- What modes of regulation and incentive mechanisms exist in deregulated markets for promoting clean energy?
- How have RE and EE markets worked in developed countries?
- How successful have they been and would they be appropriate in Asia? If so, how must they be regulated?

Session 5: Regulation to Drive Investments in Renewable Energy

- How can we promote RE to increase energy security, contribute lesser missions to climate change, and increase energy access?
- What are the key regulatory barriers and issues that need to be addressed to facilitate significant increases in renewable investments?

Session 6: Grid Systems

- What should future electricity grids look like to facilitate a clean energy transition? How can distributed generation and energy efficiency be integrated into the grid?



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Sunday 20th June

6-8 PM **Pre-Workshop Reception**, Crowne Plaza Galleria Manila Hotel, Ortigas Avenue corner, ADB Avenue (5 minutes walk from ADB) (sponsored by USAID)

Monday 21st June

8:30 AM **Registration**

9:00 AM **Welcome Remarks**

- **Bindu Lohani**, Vice-President, Finance and Administration Asian Development Bank
- **Olivier Carduner**, Mission Director, USAID Regional Development Mission for Asia

9:30 AM **Session 1: The Need for Clean Energy Regulation and What it Would Look Like**

Session Chair: Philip Daltrop, Deputy General Counsel, ADB

- *The Science of Climate Change: Policy and Regulatory Implications for Clean Energy*
Jayant Sathaye, Senior Scientist and leader, International Energy Studies Group, Lawrence Berkeley National Laboratory, USA (via video link)
- *The Economics of Climate Change in Asia*
Tae Jung, Senior Economist, East Asia Regional Department, ADB
- *Climate Change Scenarios: The Technologies, and the National Policies and Regulations Needed*
Tom Kerr, Senior Energy Analyst International Energy Agency
- *Q & A - Led by Session Chair*
- *Introduction to the Dialogue on Clean Energy Governance and Regulation*
Kala Mulqueeny, Senior Counsel, ADB

10:30 AM **Coffee Break**

10:45 AM **Session 2: Shifting to a Clean Energy Resource Mix**

Session Chair: Smita Nakhoda, Senior Associate, World Resources Institute

Energy Resource Planning in Thailand

- *Policymaker Perspective*
Dr. Twarath Sutabutr, Deputy Director General, Department of Alternative Energy
- *Regulator Perspective*
Dr. Pallapa Ruangrong, Energy Regulatory Commission of Thailand
- *Civil Society Perspective*
Chuenchom Sangarasri-Greacen, Palang Thai
- *Q & A and Discussion - Session Chair*

International Reflections on Resource Planning

- *Brazil: Academic and Civil Society Perspective*
Gilberto M Jannuzzi, Universidade Estadual de Campinas, Brazil
- *United States: Regulator's Perspective*
Wayne Shirley, Director and Principal, Regulatory Assistance Project (former Chairman and Commissioner of the New Mexico Public Utility Commission)
- *India: Energy Ministry Perspective*
A S Bakshi, Chief Engineer (Integrated Resource Planning), Central Environmental Agency
- *Vietnam: Utility Perspective on Strategic Environmental Assessments*
Nguyen Thi Thu Huyen, Deputy Manager - Technology and Environmental Department, Consulting Center of Thermal-Nuclear Power Plant and Environment, Institute of Energy
- *Q & A and Discussion – Led by Session Chair*

12:30 PM **Photo Session and Lunch Break**

(Participants may purchase their own lunch at the ADB cafeteria or the ADB Executive Dining Room)

1:45 PM **Session 3: Regulation to Promote Energy Efficiency and Demand Side Management**

Session Chair: Mr. Agus Sari, Non-Executive Director, PEACE Consultancy, Indonesia

Sharing International Experience

- *United States: Regulator's Perspective*
Dian Grueneich, Commissioner, California Public Utilities Commission
Bai Quan, Deputy Director, Energy Efficiency Center, Energy Research Institute, China

Indonesia: Challenges and Opportunities of Implementing Energy Efficiency Policy

- *Policy and Planning Perspective*
Yahya Hidayat, Director of Energy and Telecoms, BAPPENAS (National Development Planning Agency), Indonesia
- *Policy Implementation Perspective*
Mochamad Siachdirin, Head of Sub Directorate of Technical Guidance, Directorate, New and Renewable Energy and Energy Conservation
- *Private Sector Perspective*
Mr. Shalahuddin Hassan, Energy Audit Division, Energy Management Indonesia
- *Q & A and Discussion - Led by Session Chair*

3:30 PM **Coffee Break**

3:45 PM **Session 4: Regulating Markets and Incentive Mechanisms for Clean Energy**

Session Chair: Wayne Shirley, Director and Principal, Regulatory Assistance Project (former Chairman and Commissioner of the New Mexico Public Utility Commission)

Regulation and Incentive Systems

- *People's Republic of China: Green Dispatch*
Sun Yaowei, Deputy Director-General, Policy and Regulations Dept. (Power Sector Restructuring Office), State Electricity Regulatory Commission of China (SERC), State Electricity Regulatory Commission, People's Republic of China
- *US: Energy Efficiency and Decoupling*
Frederick Weston, Regulatory Assistance Project

- *Chile: Energy Efficiency and Revenue Decoupling*
Daniela Martinez G., Lawyer (former General Counsel, Ministry of Energy, Chile)
- *Q & A and Discussion - Led by Session Chair*

Regulating Market Mechanisms for Energy Efficiency and Renewable Energy

- *Australia: Certificate Schemes for Energy Savings and Demand Management in Australia*
Chris Dunstan, Research Director Institute for Sustainable Futures, University of Technology Sydney, Australia
- *European Experience with Energy Savings Certificates*
Tom Kerr, Senior Energy Analyst International Energy Agency
- *India: Renewable Energy Certificates under the New Law*
Balawant Joshi, Director, ABPS Infrastructure Advisory Private Limited
- *Q & A and Discussion – Led by Session Chair*

6:00 PM – **Reception, Courtyard, ADB**

9:00 PM *Joint reception with participants of the Asia-Pacific Dialogue on Clean Energy Governance and Regulation; A Quantum Leap in Wind workshop; and Regional Workshop on Greenhouse Gas Inventories and Accounting (reception sponsored by ADB)*

Tuesday 22nd June

9:00 AM **Session 5: Regulation to Promote Investment in Renewable Energy**

Session Chair: Priyantha Wijayatunga, Energy Specialist, ADB (former Director General, Public Utilities Commission, Sri Lanka)

Renewable Energy: Feed-in Tariffs and Net Metering in the Philippines

- *Policymaker Perspective*
Mario Marasigan, Assistant Secretary of Energy, DOE, Philippines
- *Regulator Perspective*
Francisco Saturnino Juan, Executive Director, Energy Regulatory Commission
- *Private Sector and Civil Society*
Vince Perez, President and CEO, Alternergy; Vice-Chair, Renewable Energy Board; Chairman WWF – Philippines (former Philippines Secretary of Energy)
- *Comparison of Feed-in Tariffs in European Countries and SE Asia Implications*
Benjamin Sovacool, Assistant Professor, National University of Singapore
- *Q & A and Discussion – Led by Session Chair*

International Perspectives

- *China: Policy Perspective*
Li Junfeng, Deputy Director General, Energy Research Institute, National Development and Reform Commission; and Secretary General, China Renewable Energy Industry Association
- *India: Regulator Perspective*
Dr. P. K. Mishra, Chairman, Gujarat Electricity Regulatory Commission, India
- *India: Civil Society Perspective: Renewable Energy in Five Indian States*
Shantanu Dixit, Prayas Institute
- *Pacific Islands: Regulation for Renewables in the Pacific*
Alex Sundakov, Castalia
- *Q & A and Discussion – Led by Session Chair*

11:00 AM **Coffee Break**

11:15 AM **Session 6: Designing and Operating Grid Systems for Clean Energy**

Session Chair: Frederick Weston, Director, Regulatory Assistance Project

- *System Issues for the Implementation of a Renewable Energy Based Economy in Germany*
Peter Hennicke, Senior Advisor to Wuppertal Institute on Climate, Environment and Energy Germany (Former President of the Institute)
- *Technical Aspects of Grid Design for Distributed Energy*
Sanjay Verma, Solutions Manager (Electrical Energy), Schneider Electric
- *Challenges for Integrating & Operating Renewable Resources Real Time*
Larry Bekkedahl, Vice-President Transmission and Engineering, Bonneville Power Administration
- *Q & A and Discussion - Led by Session Chair*

12:30 PM **Lunch Break (non-sponsored)**

(Participants may purchase their own lunch at the ADB cafeteria or the ADB Executive Dining Room)

1:30 PM **Breakout Groups on Key Thematic Areas**

Session 7: *Climate Change & Electricity Regulation: Asian Energy Regulator's Network (Zone B)*

Session 8: *Regulation to Enhance Energy Efficiency and Demand Side Management (Zone C)*

Session 9: *Regulation to Enhance Renewable Energy (Zone D)*

Session 10: *System Issues and Grid Design (Briefing Theater 2)*

Session 11: *Carbon Capture and Storage: Incentives, Risks, Regulation (Annex 2)*

(See below for details of parallel breakout sessions)

3:15 PM **Coffee Break**

3:45 PM **Session 12: Breakout Group Presentations**

Session Chair: Kala Mulqueeny, Senior Counsel, ADB

- *Climate Change and Electricity Regulation: Asian Energy Regulator's Network - Session Chair or Rapporteur*
- *Regulation to Enhance Energy Efficiency and Demand Side Management - Session Chair or Rapporteur*
- *Regulation to Enhance Renewable Energy - Session Chair or Rapporteur*
- *System Issues and Grid Design - Session Chair or Rapporteur*
- *Carbon Capture and Storage: Incentives, Risks, Regulation - Session Chair or Rapporteur*

4:30 PM **Plenary Discussion**

5:30 PM **Session 13: Closing Session**

- *Closing Remarks and Wrap Up*
Anil Terway, Senior Advisor and Practice Leader (Energy), Co-Chair Energy Community of Practice, Asian Development Bank USAID

DETAILS OF PARALLEL BREAKOUT SESSIONS

22 June, 1:30 – 3:15 PM

Session 7: Climate Change and Electricity Regulation: Asian Energy Regulator's Network

Introduction: Kala Mulqueeny, Senior Counsel, ADB

Session Chair: Wayne Shirley, Director and Principal, Regulatory Assistance Project (former Chairman and Commissioner of the New Mexico Public Utility Commission)

Rapporteur: Smita Nakhooda, Senior Associate, World Resources Institute

Key Questions

- How are electricity regulators roles and responsibilities being influenced by climate change and law and policy at both the international and national level?
- What new challenges result?
- What capacity needs do regulators have to equip them with the ability to tackle these challenges?

Panel Discussion

- **Sh. D. C. Samant**, Chairman, Rajasthan Electricity Regulatory Commission
- **Dr. Pallapa Ruangrong**, Energy Regulatory Commission of Thailand
- **Carmine Piantedosi**, Chief Executive Officer, Utilities Regulatory Authority, Vanuatu
- **Sun Yaowei**, Deputy Director-General, Policy and Regulations Dept. (Power Sector Restructuring Office), State Electricity Regulatory Commission of China (SERC), State Electricity Regulatory Commission, People's Republic of China
- **Francisco Saturino Juan**, Executive Director, Energy Regulatory Commission
- **Dian Grueneich**, Commissioner, California Public Utilities Commission

Open Discussion

- Facilitated by Session Chair

Session 8: Regulation to Enhance Energy Efficiency and Demand Side Management

Session Chair: Peter du Pont, Chief of Party, USAID Contractor, ECO-Asia Clean Development and Climate Program

Rapporteur: Philip Kang, UN Economic and Social Commission for Asia and the Pacific

Key Questions

- What are the key regulatory barriers to be addressed to facilitate a quantum increase in energy efficiency investments?
- What institutions play the key roles in facilitating this?
- What challenges do these institutions face in promoting regulation for energy efficiency? What are their capacity needs to equip them with the ability to tackle these challenges?

Panel Discussion

- **Frederick Weston**, Regulatory Assistance Project
- **Sohail Hasnie**, Principal Energy Specialist ADB (former Manager Pricing, Office of the Regulator-General, Victoria, Australia)
- **Bai Quan**, Deputy Director, Energy Efficiency Center, Energy Research Institute, China
- **Daniela Martinez G.**, Lawyer (former General Counsel, Ministry of Energy, Chile)

- **Ir. Saleh Abdurrahman**, MSc, Head of Review, Head of Data and Information, Ministry of Energy and Mineral Resources, Indonesia
- **Dilip Limaye**, Lead Consultant on Energy Efficiency, USAID ECO-Asia Clean Development and Climate Program

Open Discussion

- Facilitated by Session Chair

Session 9: Regulation to Enhance Renewable Energy

Session Chair: **Priyantha Wijayatunga**, Energy Specialist, ADB (former Director General, Public Utilities Commission, Sri Lanka)

Rapporteur: **Christophe Menke**, Professor for Energy and Environmental Technology, University of Applied Sciences, Trier, Germany

Key Questions

- What are the key regulatory barriers and issues that need to be addressed in order to facilitate a quantum increase in RE investments?
- What institutions play the key roles in facilitating this?
- What challenges do these institutions face in promoting regulation for RE? What are their capacity needs to equip them with the ability to tackle these challenges?

Panel Discussion

- **Li Junfeng**, Deputy Director General, Energy Research Institute, National Development and Reform Commission; and Secretary, General, China Renewable Energy Industry Association (CREIA)
- **P.K. Mishra**, Chairman, Gujarat Electricity Regulatory Commission
- **Peter Hennicke**, President, Wuppertal Institute for Climate, Environment and Energy
- **Benjamin Sovacool**, Assistance Professor, Lee Kwan Yew School of Public Policy, National University of Singapore (*The European FIT experience and implications for SE Asia*)
- **Alex Sundakov**, Castalia and Associates (Pacific and Small Islands)
- **Ashok Basu**, Former Secretary, Ministry of Power, India; Former Chairman, Central Electricity Regulatory Commission, India; Former Chairman, South Asia Forum of Infrastructure Regulation (SAFIR)

Open Discussion

- Facilitated by Session Chair

Session 10: System Issues and Grid Design

Chair: **Mykle Schneider**, Lead Consultant on Energy Policy, Contractor, USAID ECO-Asia Clean Development and Climate Program

Rapporteur: **Lauren N. Sorkin**, Climate Change Coordination Unit, Regional and Sustainable Development Department, ADB

Key Questions

- How can distributed generation and efficiency be integrated into the grid?
- What should future grids look like?

Presentation of Case Studies Followed by Comments from Panel

- PowerMatching City: The First European City Test for a Smart Power Grid
René Hooiveld, Country Manager Consulting Services China, KEMA (Beijing)
- Intelligent Home Power Management and Its Impact on Load and Grid Management
Prof. Ludger Hovestadt, Chair for Computer Aided Architectural Design (CAAD), Federal Institute of Technology, Zurich; and President, Digitalstrom (Digital Power)

Panel Commentators

- **Peter Hennicke**, Senior Advisor to Wuppertal Institute on Climate, Environment and Energy Germany (Former President of the Institute)
- **Sanjay Verma**, Solutions Manager (Electrical Energy), Schneider Electric
- **Larry Bekkedahl**, Vice-President Transmission and Engineering, Bonneville Power Administration

Session 11: Carbon Capture and Storage: Incentives, Risks, Regulation

Chair: **Dale Seymour**, Vice Chair, Global Carbon Capture and Storage Institute

Rapporteur: **Naruchol Phokawat**, Young Energy Professional, East Asia Department, ADB

Key Questions

- What is CCS?
- What is the role of regulation for enabling CCS and preventing CCS risks?

Panel Discussion

- **Kala Mulqueeny**, Senior Counsel, Asian Development Bank
- **Tom Kerr**, International Energy Agency, *The IEA's regulatory model*
- **Francisco Almendra**, World Resources Institute, *CCS Guidelines in China and the US*
- **Geoff Ingram**, Worley Parsons and Schlumberger
- **Pradeep Thakaran**, Climate Change Specialist