



Asia Clean Energy Forum Bulletin

A Daily Report of the Sixth Asia Clean Energy Forum 2011

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SIXTH ASIA CLEAN ENERGY FORUM 2011 HIGHLIGHTS: WEDNESDAY, 22 JUNE 2011

The 6th Asia Clean Energy Forum 2011, themed “New Business Models and Policy Drivers - Building the Low-Carbon Future,” co-organized by the Asian Development Bank (ADB), the United States Agency for International Development (USAID), and the World Resources Institute (WRI), opened on 22 June, 2011 in Manila, Philippines. Over 550 participants from over 50 countries from governments, financial institutions, civil society, academia, international organizations, and the private sector, gathered in plenary, eight breakout sessions, and parallel side events to discuss methods to encourage large-scale clean energy development and deployment.



Opening Plenary of the Conference

OPENING PLENARY

A CALL TO ACTION: ACCELERATING THE CLEAN ENERGY REVOLUTION

Welcoming participants to the Forum, Haruhiko Kuroda, President, ADB, emphasized that green growth must become the new business as usual for Asia and the Pacific. He expressed his hope that the Forum’s discussions would focus on ideas for new policies, business models and investment strategies to build an inclusive low-carbon future.

Robert Orr, US Executive Director, ADB, described clean and renewable energy efforts in the US, including: research on longer-lasting rechargeable car batteries and new fuels; clean coal; the overhaul of power infrastructure; and investments in smart grids and metering. Noting increasing energy demands in Asia, he outlined USAID support of US \$275 million to the region, including financing for clean energy development, regional power trading, energy conservation, joint technological research, and energy efficiency in buildings.

Amory Lovins, Chairman, Rocky Mountain Institute (RMI), elaborated on how renewables and energy efficiency can nearly eliminate the need for fossil fuels for energy production by 2050. Lovins recounted a range of technologies in the transportation and electricity sectors based on “mindful markets,” smart policies and entrepreneurship. On solutions for future and low-carbon transport needs, Lovins identified “feebates,” ultralight vehicles, simplified manufacturing, electric propulsion, and intelligent traffic management to reduce idle vehicle use. On electricity, he stressed: removing wasteful subsidies and redesigning wasteful devices; distributed microgrids; and other mechanisms for transforming customer costs into capital assets.

Mohamed El-Ashry, Chairman, Renewable Energy Policy Network for the 21st Century (REN21), and Senior Fellow, UN Foundation, declared that sustainable development is not possible without making energy sustainable. He stressed that in order to meet the UN Millennium Development Goals (MDGs) and accelerate access to clean energy technology, it is necessary to increase financing and policy support for renewables globally, and improve a basket of renewables-related capacities in least developed countries (LDCs).

John Byrne, Distinguished Professor, University of Delaware, suggested that the US follow Californian and EU examples to overcome its “energy obesity” and improve economic performance through investments in renewable energy, efficiency and conservation measures. Noting the density and rapid growth of Asian cities, he called for: new institutional systems to shift costs of renewables from consumers to utilities;



Haruhiko Karoda, President, Asian Development Bank

The *Asia Clean Energy Forum Bulletin* is a publication of the International Institute for Sustainable Development (IISD) <info@iisd.ca>, publishers of the *Earth Negotiations Bulletin* © <enb@iisd.org>. This issue was written and edited by Tasha Goldberg, Aaron Leopold, Chad Monfreda, and Delia Paul. The Digital Editor is Brad Vincelette. The Editor is Leonie Gordon <leonie@iisd.org>. The Director of IISD Reporting Services is Langston James “Kimo” Goree VI <kimo@iisd.org>. Funding for coverage of this meeting has been provided by the Asian Development Bank. IISD can be contacted at 161 Portage Avenue East, 6th Floor, Winnipeg, Manitoba R3B 0Y4, Canada; tel: +1-204-958-7700; fax: +1-204-958-7710. The opinions expressed in the *Bulletin* are those of the authors and do not necessarily reflect the views of IISD. Excerpts from the *Bulletin* may be used in other publications with appropriate academic citation. Electronic versions of the *Bulletin* are sent to e-mail distribution lists (in HTML and PDF format) and can be found on the Linkages WWW-server at <<http://www.iisd.ca/>>. For information on the *Bulletin*, including requests to provide reporting services, contact the Director of IISD Reporting Services at <kimo@iisd.org>, +1-646-536-7556 or 300 East 56th St., 11D, New York, New York 10022, United States of America. The IISD Team at the Sixth Asia Clean Energy Forum 2011 can be contacted by e-mail at <aaron@iisd.org>.



Panel for session on Towards Sustainable Energy for All

excellence in public transport systems; and the use of urban areas for decentralized power generation, especially by making use of rooftop solar real estate.

BREAKOUT SESSIONS

In the afternoon, participants met in eight breakout sessions on the Forum's main topics. IISD RS was there to cover five of these, on: moving towards sustainable energy for all; using public investment to leverage private capital; deal facilitation and technology development for renewables projects; policies to improve distribution systems and develop smart grids; and new business models and policy drivers.

TOWARDS SUSTAINABLE ENERGY FOR ALL: Bart Édes, ADB, chaired the session.

Mohamed El-Ashry, REN21 and UN Foundation, said it was time to close the global energy access gap, lamenting that in many cases it is not a lack of energy supply, but wasteful use practices that hinder broad energy provision in developing countries. He urged participants to help raise awareness about energy poverty, and said Rio +20 and the UN Year for Sustainable Energy for All in 2012 must be used to spur an economically, socially and environmentally sustainable energy revolution.

Edwin Khew, IUT Global and Sustainable Energy Association of Singapore, called for financial models on provisioning and servicing technology on the ground.

Rajan Velumail, United Nations Development Programme (UNDP), said providing energy access must be explicitly linked with poverty reduction.

Edita Bueno, National Electrification Administration, Philippines, said her government views initial rural electrification efforts as infrastructure projects, making the government responsible for establishing access to energy.

Johane Meagher, Global Sustainable Electricity Partnership (e8), described her organization's work on a global survey on best practices for public-private partnerships (PPPs). She said that e8 would soon announce a cooperative project with ADB on energy poverty.

Responding to a question by Chair Édes on barriers to overcoming energy poverty: Velumail stressed affordability of technologies and the sustainability of projects after project funding ends; El-Ashry said high-level government commitment is generally lacking, but where it exists, great progress has been made; Bueno added that government roadmaps and concrete planning are most important; Meagher lamented that clear and facilitative long-term energy policies are often lacking; and Khew reiterated the importance of training programmes on the ground to avoid malfunctioning renewables becoming white elephants.

On shared responsibility for innovation and renewables adoption, panelists agreed that predictable subsidies matching long investment payback periods are needed. Khew remarked that the poor already pay high prices for privately generated electricity and emphasized that household-managed systems to generate power for lighting and cooking are the most urgent needs, not community micro-grids. Velumail then emphasised that private-public partnerships must invest in institutional capacity.



Panel for the session on Approaches to Deal Facilitation and Technology Development for Clean Energy Projects



Panel for the session on Voluntary, Market-Based Approaches to Drive Exemplary Building Energy Performance

USING PUBLIC INVESTMENT TO LEVERAGE

PRIVATE CAPITAL: This session was chaired by Steven Gray, Climate Change Capital. Isabelle Vincent, French Development Agency (AFD), outlined how development agencies and donors can facilitate policy transformation for clean energy via more holistic thinking about energy systems. She called for development partners to play more active roles in strategy and design, rather than passively waiting for innovation to unfold. She explored various tools and strategies, including indicators accounting for social and environmental externalities, cross-sector and inter-ministerial dialogue, credit line support linked to on-the-ground projects, and strategies permitting policy evolution and dialogue.

Len George, ADB, explained strategies for using funds to capitalize additional investments. He described ADB's support of large-scale solar in India, which facilitates public sector lending for infrastructure development and private sector lending through direct loans, credit guarantees, and other mechanisms for reducing investor risk. He described the need to convene stakeholders through initiatives such as the Asia Pacific Solar Forum, a knowledge platform to share lessons among public, private and civil society sectors.

Satoshi Fukushima, ADB, described technical aspects of ADB's role in the Gujarat Solar Park.

Christianne Carin, Elk Partners LLC, explained how existing technologies can be bundled into stand-alone systems for health clinics, hospitals, sanitation centers, housing facilities and other users. She stated that these flexible, off-grid modules combine renewable energy sources, control software, microgrids, and other components into systems that can be rapidly implemented within two years, in contrast to the 10-15 years typical of larger scale projects. Carin emphasized that opportunities for implementing such stand-alone systems abound and offer significant opportunities for scaling up renewable technologies.

Eugene Yun, Eos Investment Partners, highlighted the need for a "game changer" to escape the vicious circles of inadequate capital, immature private equity, insufficient investment opportunities, and infrastructure underdevelopment. He argued solutions must address a number of complex factors, including fund development, project development, non-commercial risk, and public-private partnerships. Yun said that

innovations in funding structures can meet these challenges by investing at scale, generating highly favorable risk-adjusted returns, mobilizing private sector capital, pooling investible projects, and risk mitigation tools.

In the ensuing discussion, panelists fielded questions from participants on: clean technology funds; the need for multi-sectoral lending and promoting intersectoral dialogues; and civil society's role in allocating foreign investments.

APPROACHES TO DEAL FACILITATION AND TECHNOLOGY DEVELOPMENT FOR CLEAN

ENERGY PROJECTS: Jun Tian, ADB, chaired this session. Irman Boyle, USAID ECO-Asia Clean Development and Climate Program, described CTI PFAN's work in Indonesia, acting as the "missing middle," fostering relationships between project entrepreneurs and financiers by engaging project developers via competitions to provide pro bono mentoring. Boyle said CTI PFAN has successfully supported 21 projects in raising US\$ 275 million in investment money, and has over 80 more projects in the pipeline. Responding to a question from the audience, another representative of CTI PFAN said they are increasingly supporting financial institutions in project assessment and due diligence training rather than project developers as it is often difficult to find suitable developers.

Hong Miao, USAID ECO-Asia Clean Development and Climate Program, shared lessons learned from matching entrepreneurs with investors for CTI PFAN projects in China, where over 70 projects have benefited from the program, seven of which have achieved financial closure. She shared how workshops and forums have built trust and credibility, attracted new business, and strengthened core membership and the overall network.

Lee Jia Jing, EU-Malaysia Biomass Sustainable Production Initiative, presented successful mechanisms for linking EU companies to small to medium-sized enterprises (SMEs) in Malaysia by attracting stakeholders to nurture projects such as biomass production, fuel switching CDM projects, and carbon credit trading. He indicated that, based on existing green policies in Malaysia and interest in the EU to move towards renewable energy, a successful synergy is developing which supports and facilitates relationships between industry, investors and government officials.



Panel for session on Clean Energy Investment Strategies and Products



Russell deLucia, S3IDF

POLICIES TO IMPROVE DISTRIBUTION SYSTEM EFFICIENCY AND DEVELOP SMART GRIDS IN ASIA:

Seethapathy Chander, ADB, chaired the session and stressed the need for investments to reduce energy losses from transmission and distribution.

Mayur Karmarkar, Partnership Asia and International Copper Association, described his association's EU-funded partnership with the government of China, transformer manufacturers and others in the supply chain, which is improving efficiency of distribution transformers manufactured in China, raising standards across the market, and supporting China's preparation for mandatory energy efficiency standards.

Tika Limbu, ADB, presented efforts to reduce current energy losses in transmission and distribution in India caused by factors including inadequate load management, aging equipment, and relatively high shares of domestic and agriculture loads. Noting that growth in India's power sector is almost 10% a year, he said ADB is supporting the formation of a single national grid by 2012, the current phase of which is to install 1,800 km of transmission lines from north-eastern to northern India, avoiding seven million tons of CO₂ emissions.

Grayson Heffner, International Energy Agency (IEA), underscored the need to understand smart grids in the context of the growing complexity of electricity systems. He said sophisticated smart grids with bi-directional communication between energy users and producers are needed to limit global warming. He noted they could improve end-user behavior, demand response, and network efficiency. Heffner then outlined challenges facing smart grids, such as the need to accommodate technological and regulatory requirements including global technology standards and integration with existing infrastructure.

NEW BUSINESS MODELS AND POLICY DRIVERS:

Gil-Hong Kim, ADB, chaired the session.

Gabinete Reyes Redentor, Pepsi-Cola Products Philippines, described Pepsi's Project Power Play, which set up biomass power plants at all Pepsi plants in the Philippines through



Mark Allington, IFC International

energy service companies, which install, maintain and run the facilities at no cost to Pepsi, who then buys the power produced at a reduced rate. He said this had led to 25 percent savings in energy costs at their largest plant.

Sridhar Samudrala, Mukund Dairy Farm, described how his farm's biogas production facility is used to power his pasteurization plant, which had previously been powered by unsustainably harvested local wood. He said the costs for the change were recouped in less than two years.

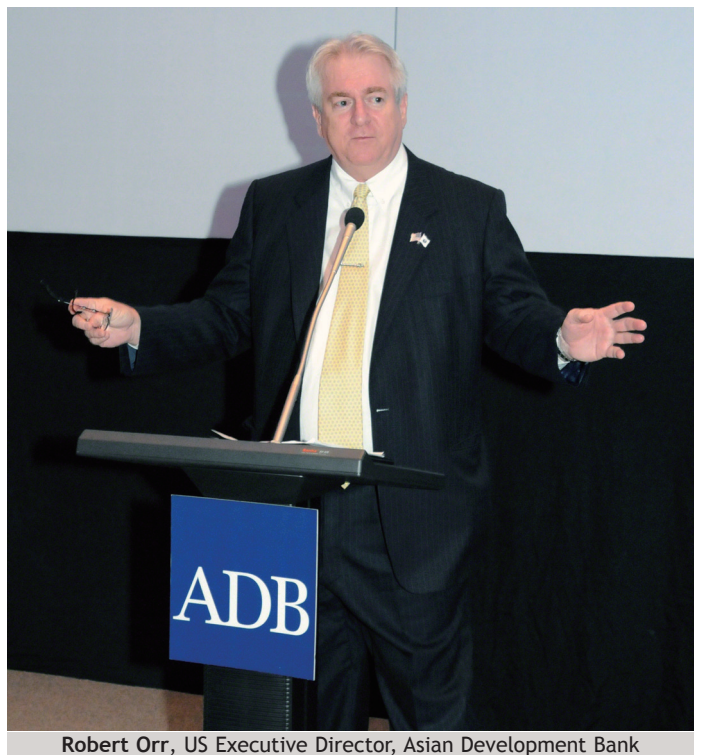
Peter Hayes, ADB, and Mark Allington, IFC International, presented on ADB GeoExplorer, an online geographic information systems (GIS) tool for wind and solar energy resource mapping in 10 developing countries in Central West Asia. They said it allows investors to assess energy yield, scale of investment needed, and compare relative economic viability based on a range of detailed geographical, habitat, weather, infrastructure policy and other characteristics. They explained that their plan is to introduce the tool to national private sector, governmental and other stakeholders, to begin further dialogue to explore appropriate next steps for facilitative renewable energy policies.

Aiming Zhou, ADB, shared a business model used to build a rooftop solar system based on SunEdison's work. The model requires no upfront cost due to a long-term power purchase agreement, supports local companies in securing non-recourse loan financing, and helps match solar systems to buildings' energy load profiles.

Panelists then fielded questions from the audience on acquiring upfront financing, replicating successful business models and managing risks.



Organizer alerting Participants that sessions are starting



Robert Orr, US Executive Director, Asian Development Bank