

# EEl Update – March 2009

A progress bulletin of ADB's Energy Efficiency Initiative



Issue No.8

## ADB Surpasses Clean Energy Investment Target by \$693 Million in 2008

The Energy Efficiency Initiative (EEI), launched in July 2005, has been the flagship program under the Asian Development Bank's climate change mitigation efforts. The goal of EEI is for ADB to invest \$1 billion per year on clean energy projects from 2008 to 2010. In 2008, this target has been met and surpassed with around \$1.7 billion of clean energy investments in.

Initially, six countries have been identified as priority in the program--People's Republic of China (PRC), Indonesia, Pakistan, Philippines, and Viet Nam, to receive preparatory and project development assistance for energy efficiency (EE) and renewable energy (RE) initiatives. Now, the EEI is being expanded, through the Climate Change Fund (CCF), to explore market opportunities by means of a broad range of in-country and regional activities in six new priority developing member countries—Afghanistan, Bangladesh, Cambodia, Lao People's Democratic Republic, Mongolia, and Uzbekistan.

### Summary of ADB's Clean Energy Investments

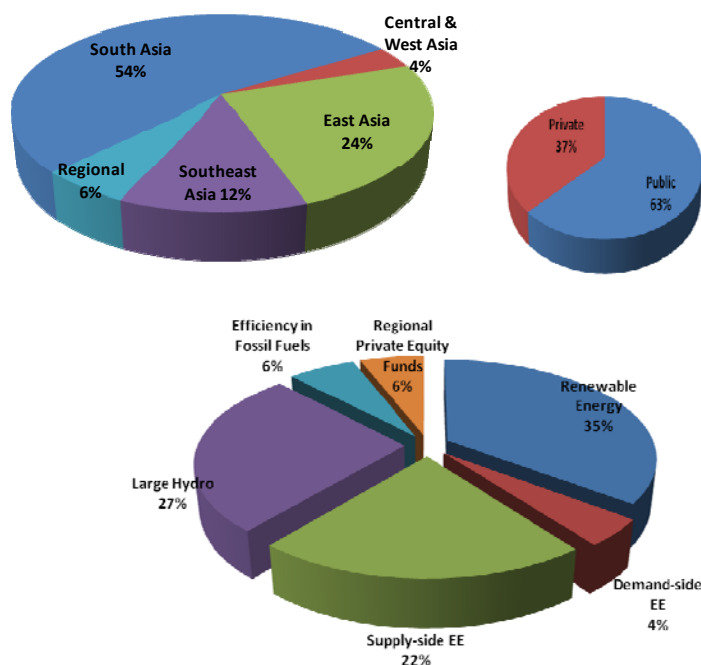
Year	Approved Investments* (\$ millions)	CE Component (\$ millions)
2003	1,263	226
2004	1,356	306
2005	1,805	757
2006	1,612	657
2007	1,801	668
<b>2008</b>	<b>3,024</b>	<b>1,693</b>

\*Total approved investments that have clean energy component

Clean energy investments from public sector operations amounted to around \$1.06 billion (63%), while those from private sector operations totaled to around \$629 million (37%), in 2008. Bulk of the investments in clean energy is in South Asia with close to \$908 million (53%). Clean energy investments in East Asia follow with close to \$416 million

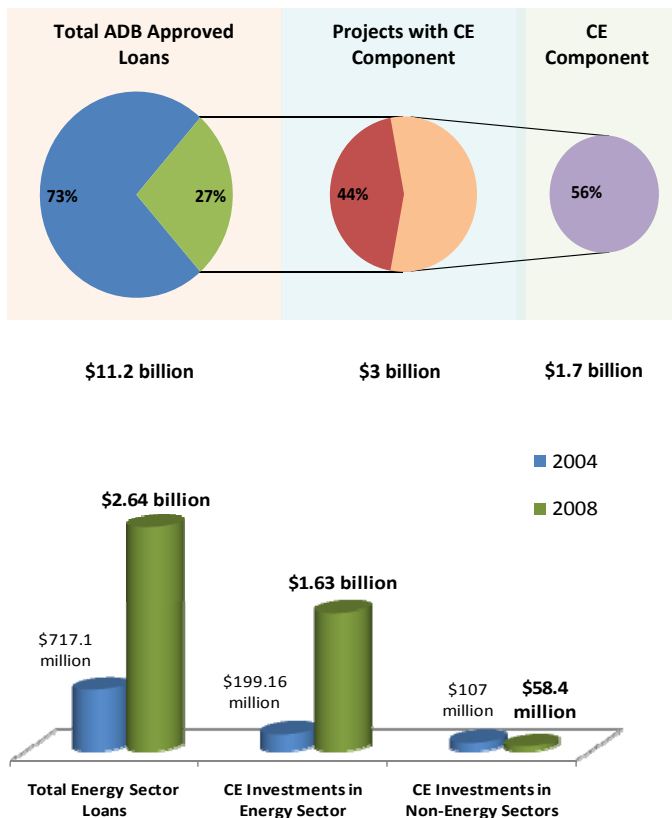
(24%), Southeast Asia with \$206 million (12%), Central and West Asia with \$63 million (4%), and regional investments with \$100 million (6%). In terms of clean energy project type, RE investments take the largest share amounting close to \$598 million (35%). EE investments take the next largest slice with around \$441 million (26%; demand-side at \$75 million, supply-side at \$366 million). Large hydropower is estimated at \$454 million (27%), while \$106 million (6%) was invested to increase efficiencies in the use of fossil fuels. Private sector equity funds, which cover both RE and EE, amount to \$100 million (6%).

### Clean Energy Investment Portfolio 2008



For 2008, \$3.02 billion (27%) of ADB's total approved loans of \$11.2 billion represent investments in projects with clean energy component. Of the \$3.02 billion, total investments in clean energy amount to around \$1.7 billion. This includes energy sector investments with clean energy component (\$1.6 billion) and non-energy sector investments with clean energy component (\$58.4 million).

### ADB's Clean Energy Investments (2008)



ADB is working to sustain the clean energy investment target of \$1 billion per year, for the next two years until 2010.

*Samuel Tumiwa; Alexander Ablaza;  
Marcial Semira*

## ADB Extends Support to Philippine Energy Efficiency Project

ADB support to the Philippine Energy Efficiency Project was formalized on 29 January 2009 through the approval of a \$31.1 million loan to the Philippine government. This initiative is the 3<sup>rd</sup> pure end-use EE project that has been supported by ADB since the commencement of EEI Phase II in June 2006. As one of the priority DMCs, the Philippines has been receiving technical assistance from EEI in the design and development of the Project, prior to the approval of the loan.

The Philippine Department of Energy identified six major project components targeted towards making the residential sector, government, electric utilities, and LGUs more energy efficient through a mix of direct grant, capacity-building, and communication initiatives. 13 million compact fluorescent lamps (CFL) will be distributed to homeowners and businesses

nationwide in exchange for less-efficient incandescent bulbs. Government agencies and local government units will also be given CFLs to retrofit their offices and public lighting systems. A super energy service company (ESCO) will be established to develop projects for its own implementation (for the public sector) and support development of other ESCOs (for the private sector) by providing financial and technical advisory support. A communication and social mobilization campaign will support these efforts through a \$1.5 million grant from the Asian Clean Energy Fund (established by the Government of Japan) under the Clean Energy Financing Partnership administered by ADB.

This multi-sectoral approach hopes to become the main driving force of the Project towards savings of about \$100 million every year in fuel costs and a deferral of an investment of \$450 million in power generation. Plans to tap the scale-up potential are being considered by the Government. Efforts to replicate the Philippine model in other DMCs such as Pakistan and Viet Nam are ongoing with the help of EEI.

*Sohail Hasnie; Alexander Ablaza*

## ADB's Energy Efficiency Project Showcased in Carbon Forum Asia 2008

On 13 November 2008, ADB organized a special session on *Using Programmatic Clean Development Mechanism (P/CDM) to Improve Energy Efficient Lighting in Developing Asia* as a side event at the Carbon Forum Asia 2008. The session discussed the regional and sector-wide potentials for efficient lighting projects and how they can be scaled up with the optimal use of P/CDM approaches. Through the discussions, ADB was able to emphasize to carbon market stakeholders the necessity for P/CDM to become a more effective mechanism to support the replication of efficient lighting programs across its DMCs. The Philippine Energy Efficiency Project, assisted by ADB, was reviewed as an example during the session.

Carbon Forum Asia 2008 is a 2-day conference which aimed to provide a platform for trade fairs and conferences for market professionals and industry leaders in the carbon market. Organized by International Emissions Trading Association (IETA) and Koelnmesse, Inc., the Forum also featured a Project Sellers Pavilion which hosted more than 90 clean energy and CDM project developers and designated national authorities (DNAs) from around the Asia Pacific Region. ADB was one of the major partners in the Forum, together with the Japan Bank for International Cooperation (JBIC).

*Sohail Hasnie; Yiyang Shen;  
Alexander Ablaza*

## EEI Activities<sup>1</sup> at a Glance

Alexander Ablaza

Unit	EE	RE	CF	Activity Status	Next Steps/Outlook
CWRD	✓			<ul style="list-style-type: none"> <li>Completed and submitted EE roadmap and assessment report to the Government of Pakistan; Used EEI output to design new project preparatory technical assistance (PPTA) to help government in developing a comprehensive EE policy and investment program</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate activities related to EE program development</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Secured approval for Pakistan PPTA: Sustainable Energy Efficiency Development Program</li> </ul>	<ul style="list-style-type: none"> <li>PPTA implementation</li> <li>Develop EE project pipeline</li> </ul>
	✓	✓		<ul style="list-style-type: none"> <li>Secured approval for Afghanistan MFF and Tranche 1; Recruiting consultants to prepare the energy sector development/rehabilitation projects to reduce diesel power generation and losses</li> </ul>	<ul style="list-style-type: none"> <li>Conclude consulting services contracts and prepare detailed design and bidding documents</li> </ul>
DER	✓	✓	✓	<ul style="list-style-type: none"> <li>Continuing support for communicating ADB's clean energy efforts through management of publications, press releases, speaking engagements, website, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Sustain clean energy communication campaign</li> </ul>
EARD	✓	✓		<ul style="list-style-type: none"> <li>Completed Phase 2 of collaborative study with the National Development and Reform Commission to mainstream innovative mechanisms to optimize foreign capital in EE and RE development in the People's Republic of China (PRC) in Jul 2008</li> </ul>	<ul style="list-style-type: none"> <li>Support dissemination of Phase 2 outputs among central and provincial government agencies and within ADB</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Secured approval for first tranche of Guangdong EE and Environment Improvement Program in Jun 2008</li> </ul>	<ul style="list-style-type: none"> <li>Implement first tranche of Guangdong efficiency power plant (EPP)</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Working with provincial governments, utilities and private sector partners to develop EPP, integrated gasification combined cycle (IGCC), district heating, wind, hydro and biomass projects in PRC</li> </ul>	<ul style="list-style-type: none"> <li>Explore EPP opportunities in Shandong and Liaoning; Pursue other CE investments in PRC</li> </ul>
OAS	✓			<ul style="list-style-type: none"> <li>Investigating new opportunities to employ EE technologies and practices in ADB facility operations</li> </ul>	<ul style="list-style-type: none"> <li>Continue to implement innovative measures to reduce ADB's carbon footprint</li> </ul>
		✓		<ul style="list-style-type: none"> <li>Demonstrated solar applications for ancillary loads</li> </ul>	
OCO	✓	✓	✓	<ul style="list-style-type: none"> <li>Submitted the Clean Energy Financing Partnership Facility (CEFPF) Semiannual Progress Report</li> </ul>	<ul style="list-style-type: none"> <li>Continue discussion with other donors (e.g. Austria, Finland, Luxembourg, Netherlands, Portugal, Switzerland, United Kingdom)</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Secured approval for ADB's Climate Change Fund (CCF)</li> </ul>	
	✓	✓	✓	<ul style="list-style-type: none"> <li>Held annual consultation meeting with CEFPF partners (e.g. Australia, Japan, Norway)</li> </ul>	
	✓	✓	✓	<ul style="list-style-type: none"> <li>The Government of Sweden has signed an instrument of contribution for \$4.7 million to the CEFPF.</li> </ul>	
	✓	✓	✓	<ul style="list-style-type: none"> <li>The Government of Spain has signed an instrument of contribution for \$5 million to the CEFPF.</li> </ul>	
OGC	✓	✓	✓	<ul style="list-style-type: none"> <li>Supported operations department in loan processes for projects with clean energy components</li> </ul>	<ul style="list-style-type: none"> <li>Continue legal advisory support to clean energy activities of ADB</li> <li>Explore new mechanisms to promote EE (e.g. ESCO contracting)</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Supported establishment and operations of climate change and clean energy funds</li> </ul>	
PARD		✓	✓	<ul style="list-style-type: none"> <li>Pacific Liaison and Coordination Office initiated discussions with 4 member states for generation company-financed TA to promote RE</li> </ul>	<ul style="list-style-type: none"> <li>Develop new TA based on financing commitments</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Proposed CEFPF financing for new RETA to promote EE in 5 Pacific member states</li> </ul>	<ul style="list-style-type: none"> <li>Secure CEFPF and RETA approvals</li> </ul>
PSOD	✓	✓	✓	<ul style="list-style-type: none"> <li>Following ADB approval, 5 clean energy private equity funds are working on fundraising. China Environment Fund III (CEF III) raised \$221 million including ADB, and invested in 6 companies</li> </ul>	<ul style="list-style-type: none"> <li>Monitor progress of investment activities of CEF III; follow up on 2 other funds which are expected to be operational within several months</li> <li>Finalize the TOR and other SCAF legal documentation between ADB and CEF III; Evaluate other potential applications under the SCAF.</li> <li>Project implementation; the 1st partner bank for the financing program was selected, selection of 2nd partner bank has started</li> </ul>
				<ul style="list-style-type: none"> <li>Discussing with several fund managers. CEF III has been identified as a potential recipient of the Seed Capital Assistance Facility (SCAF); Working on a Terms of Reference (TOR) for CEF III.</li> </ul>	
	✓	✓	✓	<ul style="list-style-type: none"> <li>Secured approval for the following projects in PRC: EE multi-project financing program, Inner Mongolia Wind Power, and Municipal district Energy Infrastructure Development Project</li> </ul>	

<sup>1</sup> Includes operations department-led activities not funded from DMC allocations under EEI RETAs 6346, 6392 and 6501.

Unit	EE	RE	CF	Activity Status	Next Steps/Outlook
	✓	✓	✓	<ul style="list-style-type: none"> <li>Secured concept clearance for Municipal Waste to Energy Project in PRC</li> </ul>	<ul style="list-style-type: none"> <li>Conduct due diligence</li> </ul>
		✓		<ul style="list-style-type: none"> <li>Secured approval for wind and supercritical projects in India</li> </ul>	<ul style="list-style-type: none"> <li>Project implementation</li> </ul>
		✓		<ul style="list-style-type: none"> <li>Pursuing other RE opportunities in India (e.g. wind project with Tata Power, rural RE power development)</li> </ul>	<ul style="list-style-type: none"> <li>Continue project development</li> </ul>
		✓		<ul style="list-style-type: none"> <li>Developing wind projects in Pakistan, Philippines, hydro in Sri Lanka; and 750 MW hydro in Nepal</li> </ul>	<ul style="list-style-type: none"> <li>Continue project development</li> </ul>
RSDD	✓	✓	✓	<ul style="list-style-type: none"> <li>Maintains a team of experts to support Energy Community of Practice activities under EEI</li> </ul>	<ul style="list-style-type: none"> <li>Support operations departments with technical expertise for CE project development</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Worked with OCO to establish and operationalize Climate Change Fund (CCF) and CEFPF</li> </ul>	<ul style="list-style-type: none"> <li>Continue tracking of CE investments; develop framework for estimating ADB's carbon footprint</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Developed and circulated draft framework for estimating, designing, monitoring, and evaluating CE projects; established ADB's baseline for CE investments through 2003–2007; tracking CE pipeline through 2008–2010</li> </ul>	<ul style="list-style-type: none"> <li>Continue tracking of CE investments; develop framework for estimating ADB's carbon footprint</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Conducted Asia Clean Energy Forums 2007 &amp; 2008, and started preparations for the 2009 forum</li> </ul>	<ul style="list-style-type: none"> <li>Support regional knowledge-sharing</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Working with other MDBs to establish the Climate Investment Funds (CIFs)</li> </ul>	<ul style="list-style-type: none"> <li>Participate in MDB meetings on CIF</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Secured approval for Energy for All RETA</li> </ul>	<ul style="list-style-type: none"> <li>Implement Energy for All</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Secured approval for new RETA to expand EEI coverage to cover 6-7 new next-priority DMCs</li> </ul>	<ul style="list-style-type: none"> <li>Work with operations departments to implement new EEI RETA</li> </ul>
SARD	✓			<ul style="list-style-type: none"> <li>Finalized EEI inception report for India</li> </ul>	<ul style="list-style-type: none"> <li>Identify EE project developers</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Completed power supply assessment study for State of Assam</li> </ul>	<ul style="list-style-type: none"> <li>Develop EE project opportunities based on Assam study findings</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Assisting GAIL India Ltd on clean development mechanism application for EE projects in natural gas subsector; Completing project eligibility review</li> </ul>	<ul style="list-style-type: none"> <li>Complete project eligibility review and prepare project design documents</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Working with state governments to establish Energy Conservation Funds (ECF)</li> </ul>	<ul style="list-style-type: none"> <li>Secure approval for ECF assistance for Madhya Pradesh</li> </ul>
		✓	✓	<ul style="list-style-type: none"> <li>Exploring IGCC and RE opportunities in India</li> </ul>	<ul style="list-style-type: none"> <li>Continue project development</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Developing EE opportunities in Bangladesh and Sri Lanka</li> </ul>	<ul style="list-style-type: none"> <li>Continue project development</li> </ul>
SERD	✓	✓		<ul style="list-style-type: none"> <li>Completed EE market assessments for Indonesia and Viet Nam; identifying EE and RE investment and policy assistance opportunities in these DMCs</li> </ul>	<ul style="list-style-type: none"> <li>Develop EE projects with governments of Indonesia and Viet Nam</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Completed assistance to Viet Nam for the 7<sup>th</sup> draft of the proposed EE and energy conservation law (with EEI support)</li> </ul>	<ul style="list-style-type: none"> <li>Monitor Prime Minister's submission of proposed law to National Assembly in early 2009</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Securing TA approval to assist implementing national EE program in industrial sector with TA funding from Spain and France. Implementation commenced</li> </ul>	<ul style="list-style-type: none"> <li>Monitor TA implementation</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Secured approval for loan assistance to the Philippine Energy Efficiency Project</li> </ul>	<ul style="list-style-type: none"> <li>Project implementation</li> </ul>
	✓	✓	✓	<ul style="list-style-type: none"> <li>Developing EE, RE and CF projects in Cambodia, Indonesia, Lao People's Democratic Republic and Viet Nam</li> </ul>	<ul style="list-style-type: none"> <li>Project preparation</li> </ul>
	✓			<ul style="list-style-type: none"> <li>Secured TA approval for Mainstreaming EE Measures in Thai Municipalities</li> </ul>	<ul style="list-style-type: none"> <li>Recruitment of consultants</li> </ul>

ADB = Asian Development Bank; CCF = Climate Change Fund; CE = clean energy; CEFPF = Clean Energy Financing Partnership Facility; CF = cleaner fuels; CFL = compact fluorescent lamp; CIF = Climate Investment Funds; CWRD = Central and West Asia Department; DER = Department of External Relations; DMC = developing member country; EARD = East Asia Department; ECF = energy conservation fund; EE = energy efficiency; EEI = Energy Efficiency Initiative; EPP = efficiency power plant; ESCO = energy service company; IGCC = integrated gasification combined cycle; MDBs = multilateral development banks; MFF = multi-tranche financing facility; MW = megawatt; OAS = Office of Administrative Services; OCO = Office of Cofinancing Operations; OGC = Office of the General Counsel; PARD = Pacific Department; PPTA = project preparatory technical assistance; PRC = People's Republic of China; PSOD = Private Sector Operations Department; RE = renewable energy; RETA = regional technical assistance; RSDD = Regional and Sustainable Development Department; SARD = South Asia Department; SCAF = Seed Capital Assistance Facility; SERD = Southeast Asia Department; TA = technical assistance