

# Clean Energy Financing Partnership Facility

Annual Report  
January to December 2008



Australian Government  
AusAID



NORWEGIAN MINISTRY  
OF FOREIGN AFFAIRS



## ABBREVIATIONS

ACEF	–	Asian Clean Energy Fund
ACM	–	Annual Consultation Meeting
ADB	–	Asian Development Bank
APCF	–	Asia Pacific Carbon Fund
AWP	–	annual work program
CCF	–	Climate Change Fund
CCSC	–	Climate Change Steering Committee
CE	–	clean energy
CEF	–	Clean Energy Fund
CEFPF	–	Clean Energy Financing Partnership Facility
CESC	–	Clean Energy Steering Committee
CEWG	–	Clean Energy Working Group
CFL	–	compact fluorescent lamp
CIF	–	Climate Investment Funds
DC	–	direct charge
DMC	–	developing member country
DMF	–	design and monitoring framework
EE	–	energy efficiency
GCI	–	grant component of investment
GDP	–	gross domestic product
GHG	–	greenhouse gas
GOJ	–	Government of Japan
IEA	–	International Energy Agency
IG	–	Implementation Guideline
OECD	–	Organisation for Economic Co-operation and Development
PPP	–	purchasing power parity
PRC	–	People's Republic of China
RE	–	renewable energy
SPR	–	semiannual progress report
TA	–	technical assistance

## WEIGHTS AND MEASURES

CO <sub>2</sub>	–	carbon dioxide
kg	–	kilogram
KOE	–	kilogram of oil equivalent
tCO <sub>2</sub>	–	ton of carbon dioxide
TOE	–	ton of oil equivalent
TWh	–	terawatt-hour

## NOTE

In this report, "\$" refers to US dollars.

<b>Climate Change Steering Committee (CCSC) Chair<sup>a</sup></b>	Xianbin Yao, Director General, Regional and Sustainable Development Department (RSDD)
<b>CCSC Members<sup>a</sup></b>	Juan Miranda, Director General, Central and West Asia Department (CWRD) Klaus Gerhaeusser, Director General, East Asia Department (EARD) TBD, Chief Economist, Economics and Research Department (ERD) Sultan H. Rahman, Director General, Pacific Department (PARD) Philip Erquiaga, Director General, Private Sector Operations Department (PSOD) Kunio Senga, Director General, South Asia Department (SARD) Arjun Thapan, Director General, Southeast Asia Department (SERD)
<b>Clean Energy Working Group (CEWG) Co-Chairs</b>	S. Chander, Deputy Director General, PSOD Anil Terway, Senior Advisor, RSDD concurrently Practice Leader (Energy)
<b>CEWG Members</b>	Bayanjargal Byambasaikhan, Energy Specialist (Infrastructure), CWRD Ashok Bhargava, Senior Energy Specialist, EARD Tae Yong Jung, Senior Economist, ERD Anthony Maxwell, Energy Specialist, PARD Sujata Gupta, Senior Economist, PSOD Naoki Sakai, Energy Specialist, SARD Duy-Thanh Bui, Energy Economist, SERD
<b>Clean Energy Financing Partnership Facility (CEFPF) Manager</b>	WooChong Um, Director, Sustainable Infrastructure Division, RSDD / CEFPF Manager Samuel Tumiwa, Senior Energy Specialist, RSDD / Alternate CEFPF Manager
<b>CEFPF Secretariat Members</b>	Patricia Calcetas, Senior Sector Officer, RSDD Maria Victoria Dela Cruz, Assistant Sector Analyst, RSDD Katrina Jayme, Consultant, RSDD Cristina Santiago, Consultant, RSDD Marcial Semira, Consultant, RSDD
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<sup>a</sup> Functions of the Clean Energy Steering Committee are now carried out by the CCSC, per memorandum circulated from the Vice President, Knowledge Management and Sustainable Development, to Directors General of the operations departments and the Chief Economist on 18 June 2008.

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## ANNUAL REPORT 2008

Facility:	Clean Energy Financing Partnership Facility
Period covered:	Mid-November 2007 <sup>1</sup> – 31 December 2008
Facility Manager:	WooChong Um, ADB
Alternate Facility Manager:	Samuel Tumiwa, ADB
Donor Liaisons	Karen Decker, ADB Kazuo Kojima, ADB

1. The Clean Energy Financing Partnership Facility (CEFPF) was established in April 2007 as an important tool to facilitate more investments in clean energy (CE)<sup>2</sup> projects in developing member countries (DMCs) of the Asian Development Bank (ADB). Its goal is to help DMCs improve energy security and transition to lower carbon economies (see Appendix 1 for more details). CEFPF is an important resource for ADB to meet and exceed its target of \$1 billion in CE investments from 2008 to 2010.

### I. HIGHLIGHTS AND KEY ACHIEVEMENTS

2. **CEFPF Advances Work on Energy Security and Climate Change.** 2008 was a successful first year of operations for CEFPF. CEFPF-supported projects are now being implemented in 11 countries in the Asia and Pacific region. They are expected to result in abatement of about 2.4 million tons of carbon dioxide per year (tCO<sub>2</sub>/yr), as well as an annual savings of about 1.1 terawatt-hours (TWh) in annual electricity use and 4.9 million tons of oil equivalent (TOE) in annual fuel savings. CEFPF supported the deployment of new technologies including solar photovoltaic and thermal solar, white light emitting diodes, a capacitor for energy storage, wind power generation, and power generation using integrated gasification combined cycle systems. CEFPF also supported DMCs requiring technical assistance (TA) interventions to be able to identify, develop, finance, and implement CE interventions, removing barriers to adopting low-carbon technologies, and enabling CE investments throughout the region, especially in smaller DMCs.

3. **CEFPF Leverages into Considerable Clean Energy Investments.** CEFPF allocated about \$18.6 million to 19 projects, resulting in \$293.5 million in CE investments, and leverage ratio of almost 1:16.

4. **CEFPF Enhances ADB Project Design.** The open feedback loop and cooperative relationship between CEFPF's Clean Energy Working Group (CEWG), CEFPF secretariat, and project team leaders throughout the application process significantly strengthens the quality of projects receiving allocations from CEFPF. The CEWG comprises ADB staff members with specific skills and experience in clean energy. They provide peer review and guidance to project team leaders and suggest improvements early in the project design process. This significantly strengthens the projects. The CEWG has also provided peer review and guidance for other

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<sup>1</sup> Since this is CEFPF's first annual report, in addition to the progress made in 2008, this also accounts for the facility's operations during the last quarter of 2007, when it began operations, and treats this period as part of the facility's first semester 2008 operations.

<sup>2</sup> CE in ADB includes initiatives in renewable energy (RE), energy efficiency (EE), and cleaner fuel.

sectors including transportation (i.e., improved railway efficiency), water supply (i.e., energy efficiency [EE] solutions to reducing non-revenue water), and finance (microfinancing for rural electrification). CEFPP's direct charges (DC) modality also provides a quick response mechanism to take advantage of unforeseen opportunities. Through DCs, CEFPP finances critically-timed activities that facilitate investments, policy discussions, small-scale project preparation and implementation, as well as important events that promote regional capacity-building, networking, and knowledge exchange.

**5. CEFPP Promotes Poverty Alleviation and Gender Equity through "Access to Energy" Projects.** Sustainable livelihood and emergence from poverty is seriously constrained by the lack of access to modern, more efficient, and affordable energy services, with negative repercussions especially experienced by women. CEFPP allocated over \$6 million (of \$18.6 million in total) to four projects promoting access to CE, contributing to the poverty reduction and gender agenda. CEFPP also works in close coordination with ADB's Energy for All Initiative to develop new approaches and methodologies for promoting access to reliable and affordable modern energy services for the poor, and scaling them up to levels that can be supported by ADB's operations departments through loans.

**6. CEFPP Expects Equally Successful Operations in 2009.** ADB expects to continue the productive and proactive relationship among the Climate Change Steering Committee (CCSC),<sup>3</sup> CEWG, CEFPP secretariat, and ADB's operations departments in 2009. Demand continues to be much higher than available resources, with about \$42.4 million expected to be available for allocation and a pipeline of about \$105.6 million in expected applications. To cope, the CEWG and secretariat will continue to strategically prioritize projects according to its design and monitoring framework (DMF), as well as resource allocation and fund utilization framework and targets.

## II. RESULTS FRAMEWORK

**7. CEFPP's DMF.** CEFPP's DMF guides the facility's resource allocations and is the basis against which CEFPP's success will be judged. It is a result of close collaboration between ADB and its financing partners. The DMF is attached as Appendix 2. The succeeding subsections on Impacts, Outcomes, and Output Performance discuss each part of the DMF in detail, and CEFPP's performance in achieving them in 2008.

### A. Impacts

**8.** CEFPP aims to contribute to the following impact: improved energy security in DMCs and decreased rate of climate change, measured by:

- (i) Energy price stability achieved (i.e., barely 2% annual inflation rate) in DMCs by the year 2020; and
- (ii) Average carbon dioxide (CO<sub>2</sub>) emissions per gross domestic product (GDP) in DMCs maintained or decreased by 2% to 5% by the year 2020.

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<sup>3</sup> Per memorandum circulated on 18 June 2008 from the Vice President, Knowledge Management and Sustainable Development, to the Directors General of the operations departments and the Chief Economist, functions of the CEFPP's Clean Energy Steering Committee (CESC) will be carried out by the CCSC established for the Climate Change Fund (CCF), comprising the same members. For consistency and ease in reporting, this report will refer only to the CCSC as responsible for steering committee activities pre- and post-18 June 2008, except in Section IV on Management of the Facility when the transition will be described.

9. Energy price stability will be monitored by comparing readily available information on GDP per unit of energy use measured in kilogram of oil equivalent (KOE). This is expressed as 2000 US\$ purchasing power parity (PPP)/KOE. CO<sub>2</sub> emissions per GDP will be monitored by using carbon intensity information expressed in kilogram (kg) of CO<sub>2</sub> per PPP (or kgCO<sub>2</sub>/2000 US\$ PPP).<sup>4</sup> The baseline data for these indicators are in Appendix 3.

10. CEFPP is also considering other possible indicators, such as reduction in fuel imports and increased utilization of indigenous energy resources to measure CEFPP's target impacts, and will explore the type of data readily available in this regard.

## **B. Outcomes**

11. CEFPP's outcomes anchor its design, and describe what CEFPP intends to accomplish at the conclusion of the activities under the facility. CEFPP's target outcome is to increase use of CE in DMCs, measured by:

- (i) Renewable energy (RE) share in energy mix increased by 2% to 5% in priority DMCs by 2020;<sup>5</sup> and
- (ii) Energy intensity (i.e., energy usage per unit of GDP) decreased by 2% to 5% by the year 2020.

12. Share of RE in DMCs' energy mix will be measured by the percentage contribution of RE in the energy mix, as reported in gigawatt-hour.<sup>6</sup> Energy intensity will be measured by the number of unit of energy used—KOE per GDP of output or KOE/US\$ PPP (footnote 4). The baseline data for these indicators are in Appendixes 3 and 4.

## **C. Progress towards Impacts and Outcomes**

13. As agreed between ADB and its financing partners during the 1<sup>st</sup> Annual Consultation Meeting (ACM) in 2008, it is still too early to measure the actual contributions of projects toward achieving CEFPP-supported impact and outcome targets. At this stage, projects receiving CEFPP allocation are generally at the data gathering/fact-finding, project design or early implementation phase. In the interim, ADB is tracking CEFPP performance by monitoring the progress of these projects through its project processing and implementation cycle, as follows:

- (i) Approved concept clearance paper, for CCSC-approved allocations;
- (ii) Report and recommendation of the President or TA reports, for ADB-approved projects receiving CEFPP allocations;
- (iii) Project performance report or TA performance report, for ADB-approved projects receiving CEFPP allocations, in advance stages of implementation;
- (iv) Project completion report or TA completion report; and
- (v) Progress updates or final reports for DC

<sup>4</sup> Use of PPP (versus nominal GDP) is proposed as it is useful when comparing overall living standards across nations because it takes into account the relative cost of living and the inflation rates of different countries.

<sup>5</sup> CEFPP will continue to support projects in countries with a high RE share in the energy mix, such as Bhutan (100% RE), Nepal (~99.8% RE) and Lao (~97%), for as long as these projects are: (i) demonstration projects that can be up-scaled and replicated in other DMCs in the region; (ii) energy access projects, increasing the number of people with access to modern forms of electricity obtained from clean energy sources, and; (iii) regional cooperation projects, supporting the export of clean energy to countries still showing high fossil fuel use and corresponding carbon emissions.

<sup>6</sup> While the RE share indicator is observed at the DMC-level for operational purposes, the global impact on climate change will be the same irrespective of the country that uses RE instead of fossil fuel.

14. Following project implementation, the project completion report will recalculate the actual reduction in energy use or increase in share of RE. The outcomes could differ from the original estimate because of design changes, better or superior technologies being introduced, or broadened project scope (within budget) because of lowering barriers.

15. Early estimates of CEFPP's indicators are encouraging. The \$18.6 million allocated to projects in 2008 is expected to translate into \$293.5 million in CE investments. Thus, for every \$1 allocated from CEFPP, about \$16 in CE investments is anticipated. These allocations included grant financing of components of seven investments/loan projects expected to result in abatement of about 2.4 million tCO<sub>2</sub>/yr, as well as about 1.1 TWh in annual electricity savings, and 4.9 million TOE in annual fuel savings (see para. 29 on CEFPP and the environment for additional information).

#### **D. Outputs**

16. Outputs are the physical and/or tangible goods and services delivered by CEFPP and describe the scope of the facility. CEFPP's outputs are as follows, each discussed in the succeeding subsections:

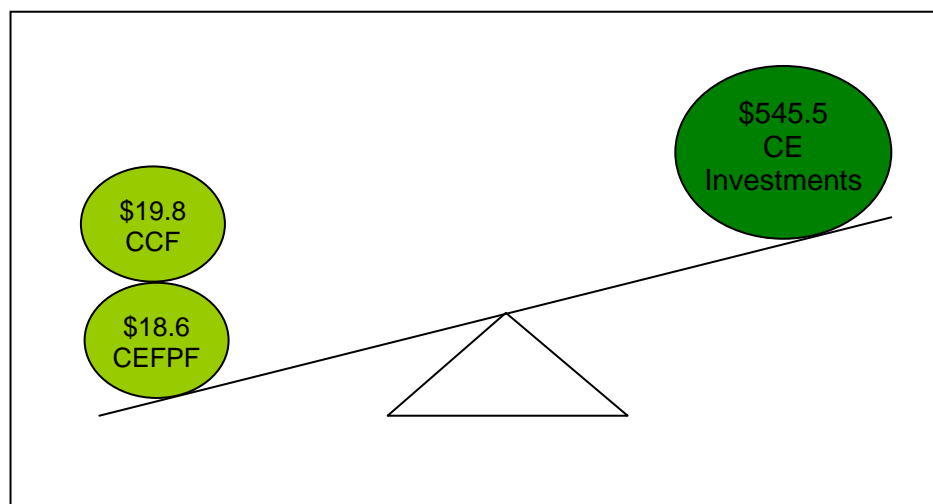
- (i) CE investments in DMCs increased;
- (ii) Deployment of new technologies with strong demonstration effects facilitated; and
- (iii) Barriers to new technologies lowered.

##### **1. Clean Energy Investments in DMCs Increased**

17. Per its DMF, CEFPP will directly contribute to increased CE investments in ADB's DMCs, targeting and maintaining \$1 billion worth of CE components in ADB investments from 2008 to 2010. ADB's CE investments in 2008 were approximately \$1.7 billion. This represents about 16% of ADB's total investments in 2008 amounting to about \$10.6 billion, and significantly exceeds the \$1 billion target for CE investments that was set by ADB President Haruhiko Kuroda. This amount represents a significant increase from ADB's previous investments in clean energy: \$225.9 million in 2003, \$306.2 million in 2004, \$756.8 million in 2005, \$657.4 million in 2006, and \$668.5 million in 2007.

18. In 2008, \$18.6 million from CEFPP was allocated to 19 projects expected to translate into \$293.5 million in CE investments. In addition, \$19.8 million was allocated from CCF to 14 projects expected to translate into an additional \$252 million in CE investments. Together, these two financing mechanisms for CE development made \$38.4 million in total allocations, facilitating \$545.5 million to the total amount of ADB's CE investments (see Figure 1). For more information on the CCF and its important contribution to promoting CE development alongside CEFPP, please see Appendix 5.

**Figure 1: Leveraging of CEFPP and CCF Allocations into CE Investments**



CCF = Climate Change Fund, CE = clean energy, CEFPP = Clean Energy Financing Partnership Facility.

Source: Asian Development Bank estimates.

## 2. Deployment of New Technologies with Strong Demonstration Effects Facilitated

19. CEFPP's Implementation Guidelines (IGs) emphasize the manageability of technology risks taken by CEFPP. Thus, CEFPP will not support technologies that are still in the research and development or pilot testing stage. Instead, CEFPP will focus on technology deployment, which may include demonstration of new technologies. Toward this end, CEFPP is guided by the following categories for stages in technology development/adoption:<sup>7</sup>

- (i) **Research and Development.** Technology needs further research and development to overcome technical barriers.
- (ii) **Demonstration.** Projects establish the technical viability on a commercial-scale project, albeit at a higher cost.
- (iii) **Deployment.** Technical operations are successful but the technology has to be used widely; entities must absorb the new technology to lower risk perceptions and identify collateral costs, if any.
- (iv) **Competitive/Commercial.** Based on extensive deployment and economies of scale in manufacturing, technology becomes cost competitive in some or all markets.

20. Per CEFPP's DMF, three new RE, EE, and cleaner fuel technologies should be deployed in DMCs by 2010. Appendix 6 shows that of the 19 projects that received allocations from CEFPP in 2008, 6 projects promoted technologies in the deployment stage, 7 projects promoted technologies in the competitive/commercial stage, 2 projects promoted technologies considered in both the deployment and competitive/commercial stages, and only 4 projects were not focused on technology deployment. The new technologies that were supported by

<sup>7</sup> Organisation for Economic Co-Operation and Development (OECD)/International Energy Agency (IEA). 2006. *Energy Technology Perspectives*. Paris.

CEFPF included solar photovoltaic and thermal solar, white light emitting diodes, capacitor for energy storage, and integrated gasification combined cycle.

21. CEWG had already agreed that commercially viable projects may vary between countries. For instance, geothermal technologies may be commercially viable in the Philippines, but not in Indonesia. The seven projects supporting technologies categorized in the competitive stages were carefully considered based on the specific country and the particular technology involved, as well as the added value of the initiative in mainstreaming CE technologies in Asia and the Pacific. For example, the compact fluorescent lamp (CFL) is a technology considered to be in the commercial/competitive stage. However, in Sri Lanka, where it is being promoted as part of the Sri Lanka: Demand Side Management for Municipal Street Lighting Project, the use of CFLs is not widespread. In this instance, the CFLs are being incorporated into a pilot energy efficient street lighting initiative at the municipal-level to be scaled-up nationally. The project Thailand: Mainstreaming Energy Efficiency Measures for Thai Municipalities is another case-in-point. Thailand is the leading country for energy conservation in the region, showcasing particularly the city of Bangkok. However, very little is being done outside the capital. CEFPF's financing of municipal-level EE projects will result in models that can be replicated in other municipalities throughout the region. Box 1 further describes CEFPF's involvement in these projects.

**Box 1: Examples of Clean Energy Financing Partnership Facility (CEFPF)-Supported Projects Deploying Clean Energy Technologies**

**Sri Lanka: Demand Side Management for Municipal Street Lighting**

Sri Lanka's generation capacity is severely deficient and projected to continue lagging behind demand requirements over the near and midterm time horizon. CEFPF's resources will be used to set up a system for utility-based energy service company or ESCO units, to manage contracts for the implementation of demand side municipal lighting. This innovative public-private partnership approach will allow energy efficiency savings to be used for future efficiency programs to help capital constrained consumers and municipal governments achieve savings, efficiency, and carbon dioxide reductions. The investment component includes the installation of automatic control panels with metering, time-of-day switches and electronic timers to help manage related costs, and compact fluorescent lamps and sodium lights to replace incandescent and mercury lights.

**Thailand: Mainstreaming Energy Efficiency Measures for Thai Municipalities**

CEFPF resources will be used to fully fund this project designed to improve Thailand's energy security and decrease the rate of greenhouse gas emissions by promoting energy efficiency (EE) initiatives in Thai municipalities. The energy service companies in Thailand primarily market their services to private clients in the commercial and industrial sector such that there are few EE initiatives that promote energy conservation at the municipal level. CEFPF resources will be used to help strengthen the capacity of Thailand's Provincial Electricity Authority and Thai municipalities to identify, design, finance, and implement pilot EE projects, and to plan for the replication of EE projects nationwide based on their implementation. The pilot projects include retrofitting old buildings and upgrading municipal street lighting using EE technologies.

22. Thus, CEFPF supports projects categorized in the competitive/commercial stages because, although commercialization has happened in some parts of the globe, adoption of the particular technology in the specific DMC is weak due to barriers present (for more information on barriers to new technologies, please see next subsection). Appendix 6 identifies the particular interventions supported by CEFPF to lower the DMC-specific barriers in adopting these competitive/commercial technologies. In the cases involving these competitive/commercial technologies, CEFPF is actually supporting the demonstration or deployment rather

than the widespread commercial application of these technologies in the DMCs where they are being implemented.

### 3. Barriers to New Technologies Lowered

23. Barriers to new CE technologies are policy, capacity, institutional, financial, economic, and even sociopolitical obstacles that place CE technologies at a disadvantage against conventional energy technologies, inhibiting adoption and widespread use. Besides the higher capital cost of CE technologies commonly acknowledged, some of the key barriers include:

- (i) Lack of enabling policies and regulations;
- (ii) Inadequate skills and training to manufacture, install, maintain, and/or service new CE technologies;
- (iii) Lack of public awareness and information dissemination on CE options and benefits;
- (iv) Disposition to established energy systems (e.g., technological lock-in; centralized power plant operation);
- (v) Failure to internalize externalities (e.g., pollution cost of conventional energy; energy security benefits of CE); and
- (vi) Inadequate financing options (e.g., limited access to affordable financing).

24. Per its DMF, by 2010, CEFPF will promote the following in DMCs: (i) establishment of three national and local policies enabling CE development in DMCs, (ii) use of three financing models suitable for bundling small CE investment projects in DMCs, and (iii) all CEFPF-supported projects will have components of knowledge/information-education-communication products and/or capacity/institutional-building services enabling CE development. As shown in Table 1, of the 19 projects that received allocations from CEFPF in 2008, 4 involved promoting national or local policies enabling CE development, while 6 involved exploring financing models for bundling small CE investment projects. All 19 projects involved knowledge/information-education-communication products and capacity building services promoting and enabling CE development. Four out of the 19 were specifically involved in piloting demonstration projects valuable for future scale-up and replication:

**Box 2: Examples of Clean Energy Financing Partnership Facility (CEFPF)-Supported Clean Energy Demonstration Projects**

**People's Republic of China (PRC): Energy Efficiency (EE) Improvements in the Railway Sector**

The technical assistance to improve efficiency in the railway sector, partially funded by CEFPF, is part of the Lanzhou-Chongqing Railway Development Project. It will help prepare the railway sector EE strategy, demonstrate management practices and EE technologies (e.g., higher fuel efficiency of locomotives; reduction in energy use for lighting, signalling, and communication; traffic optimization by efficiency use in rolling stock) applicable to PRC's railway sector. The technical assistance supports PRC's target of reducing energy consumption relative to economic growth by 20% between 2006 and 2010.

**India: Nagpur Water Supply**

The Nagpur project focuses on improving the energy efficiency of the municipal water supply system by replacing inefficient equipment and improving wasteful practices. The project intends to simultaneously reduce non-revenue water and accompanying energy costs, demonstrating energy conservation in the water sector. CEFPF will specifically help finance the replacement of existing technologies, particularly the outdated and inefficient pumping machinery, with clean and efficient energy systems.

- (i) China, People's Republic of (PRC): Energy Efficiency Improvements in the Railway Sector (see Box 2)
- (ii) India: Nagpur Water Supply (see Box 2)

- (iii) Regional (REG): Promoting Access to Renewable Energy in the Pacific (see Box 3)
- (iv) Thailand: Mainstreaming of Energy Efficiency Measures for Thai Municipalities (see Box 1)

**Box 3: Examples of Clean Energy (CE) Projects Receiving Climate Change Fund (CCF) Allocations**

**People's Republic of China (PRC): Carbon Capture and Sequestration (CCS) Strategic Analysis and Capacity Strengthening**

The technical assistance (TA) focuses on lowering the barriers in CCS demonstration in PRC by building in-country capacity; developing approaches to overcome financing, legal, regulatory, and safeguard barriers; and providing a pre-feasibility assessment of a near-term CCS demonstration project. CCF's resources will be used to partially fund this assistance.

**PRC: Clean Development Mechanism (CDM) Fund Capacity Building**

CCF will partially fund the TA designed to strengthen capacity for promoting and supporting climate change-related activities. The TA's activities include the development of management and investment manuals, design of the legal document templates, design of the project management system, and information dissemination activities.

**Regional (REG): Expanding the Implementation of the Energy Efficiency Initiative in Developing Member Countries (DMCs)**

CCF resources will be used to support the expansion of the Energy Efficiency Initiative into smaller DMCs that operations departments of the Asian Development Bank believe possess a significant potential for clean energy investments. A broad range of in-country and regional activities will be focused on developing energy efficiency market opportunities in Afghanistan, Bangladesh, Cambodia, Lao People's Democratic Republic, Mongolia, and Uzbekistan. The grant will also be used to help develop projects for possible future financing that will help reduce greenhouse gas emissions and improve energy security through the scaled-up deployment of clean energy technologies in the energy markets of these DMCs.

**REG: Carbon Forum Asia 2008**

The Carbon Forum Asia provides market professionals and industry leaders a platform for trade fairs and conferences regarding the carbon market. The main highlight at the forum was the Project Sellers Pavilion hosting more than 90 clean energy and CDM project developers and designated national authorities from around the Asia and Pacific region. CCF's resources were tapped to help finance the set up of the pavilion and the participation of the designated national authorities and project developers in both the forum and sellers pavilion.

25. Table 1 summarizes CEFPPF's allocations to projects in 2008 and the contribution to CEFPPF's outputs for an indicative measure of CEFPPF's performance against its targets and indicators. (Appendix 7 provides more details on how each project contributes to CEFPPF's outputs.)

**Table 1: Summary of CEFPP Activities Contributing to CEFPP Outputs**  
(as of 31 December 2008)

CEFPP Outputs	Targets	Contributions of CEFPP Activities			
		GCI	TA	DC	Actual/Total
<b>CEFPP Allocation (\$'000)</b>	<b>70:30</b> <b>(GCI:TA ratio)<sup>a</sup></b>	<b>10,100</b>	<b>8,000</b>	<b>490</b>	<b>54:46</b>
<b>Clean energy investments in DMCs increased (\$'000) :</b>					
<ul style="list-style-type: none"> <li>Amount of CE component in ADB investments increased by 2008 and maintained through 2010</li> </ul>	1,000,000 (at least) <sup>b</sup>	293,530	0	0	<b>293,530</b>
<b>Deployment of new technologies with strong demonstration effect facilitated:</b>					
<ul style="list-style-type: none"> <li>New RE/CF/EE technologies deployed in DMCs by 2010</li> </ul>	3	6	5	4	<b>15</b>
<b>Barriers to new technologies lowered:</b>					
<ul style="list-style-type: none"> <li>National and local policies enabling CE development in DMCs established by 2010</li> </ul>	5	1	3	0	<b>4</b>
<ul style="list-style-type: none"> <li>Financing models suitable for bundling small CE investment projects used in DMCs by 2010</li> </ul>	3	4	2	0	<b>6</b>
<ul style="list-style-type: none"> <li>Knowledge/information-education-communication products and capacity-building services promoting and enabling CE development provided to DMCs by 2010</li> </ul>	100%	7	6	6	<b>19</b>

ADB = Asian Development Bank, CE = clean energy, CEFPP = Clean Energy Financing Partnership Facility, CF = cleaner fuel, DC = direct charge, DMC = developing member country, EE = energy efficiency, GCI = grant component of investment, RE = renewable energy, TA = technical assistance.

<sup>a</sup> When calculating CEFPP's GCI:TA ratio, DCs are counted with the TAs.

<sup>b</sup> In 2008, ADB's investments in CE totaled about \$1.7 billion.

Source: Asian Development Bank estimates.

#### 4. CEFPP Contributions to Other Strategic Priorities

26. **CEFPP Contributes to ADB's Strategy 2020.** Strategy 2020, highlights three pillars as ADB's key focal areas until 2020—regional integration, inclusive economic growth, and environmentally sustainable growth, with climate change as a key component of this pillar. CEFPP significantly contributes to Strategy 2020 by promoting cost effective investments in environmentally friendly, CE technologies, and practices that result in greenhouse gas (GHG) emissions reductions. Per its DMF, the deployment of new technologies with strong demonstration effects is one of CEFPP's identified outcomes. CEFPP also promotes policy, regulatory, and institutional reforms and practices that lower barriers to new technologies and enable CE development, a major mitigation intervention.

27. **CEFPP Supports ADB's Draft Energy Policy.** ADB is presently updating its energy policy, focusing on (i) promoting EE and RE; (ii) maximizing access to energy for all; and (iii) promoting energy sector reform, capacity building, and governance. CEFPP is a key tool for achieving ADB's operational objectives under the draft Energy Policy, and CEFPP's DMF, as shown in Appendix 2, shows this alignment.

28. **CEFPF Coordinates Closely with CCF.** In May 2008, the ADB's Board of Governors approved the allocation of \$40 million from its ordinary capital resources' net income to establish CCF, in order to facilitate greater investments in DMCs and effectively address the causes and consequences of climate change. CCF resources were targeted for climate change adaptation and mitigation activities, including \$25 million earmarked specifically for promoting CE development. CCF resources are supplementary to CEFPF. They share the same program and financing objectives, governance structures, fund uses, application processes, and eligibility criteria for CE development as stated in their individual IGs. In fact, CCF's IGs was based largely on the IGs of CEFPF's multidonor Clean Energy Fund (CEF).<sup>8</sup> At the end of 2008, the CCSC allocated \$19.8 million from CCF to 14 successful applications endorsed by CEWG. Three of the 14 projects were grant components of investments (GCIs) cofinanced with CEFPF. Box 3 shows examples of CE projects receiving CCF allocations.

29. **CEFPF and the Environment.** Climate change is the most important environmental/multidimensional issue CEFPF addresses. While the industrialized countries were responsible for GHG build-up, developing nations are now the fastest growing source of emissions, and soon to be the largest absolute source. The dominance of fossil fuels in Asia and the Pacific has increased the region's share in worldwide energy-related CO<sub>2</sub> emissions, from about 9% in 1973 to 29% in 2005.<sup>9</sup> The region's share is expected to continue increasing to about 43% by 2030. CEFPF helps the region divert from its "business-as-usual" path, slowing GHG emissions through promoting cost effective investments in environmentally friendly, CE technologies, and practices, as well as policy, regulatory, and institutional reforms that enable CE development. In this regard, CEFPF's allocations in 2008 included grant components of seven investments/loan projects which are expected to result in abatement of about 2.4 million tCO<sub>2</sub>/yr, as well as about 1.1 TWh in annual electricity savings, and 4.9 million TOE in annual fuel savings (see Appendix 8 for more details).

30. **CEFPF and Poverty Reduction.** Sustainable livelihood and emergence from poverty is seriously constrained by the lack of access to modern and affordable energy services. While fast-growing economies and escalating commercial energy needs are set to dominate global demand in the coming years in Asia, over a billion people in the region still do not have access to modern and more efficient forms of energy. Several models have been successfully developed to provide access to energy for the poor. These include biomass/biofuel/biogas development and small-scale remote power generation such as solar photovoltaic and indigenously generated hydropower. CEFPF promotes the replication and scaling-up of these examples to substantially increase access to energy for the poor in the Asia and Pacific region.

31. **CEFPF and Gender.** The lack of access to modern and more efficient forms of energy have negative repercussions especially for women. Since rural women each day, often with their youngest children strapped to their backs, stay indoors in front of the cooking fire, mostly women and children under five years of age comprise the approximately 1.6 million deaths per year from indoor air quality in developing countries.<sup>10</sup> Also, women and girls in poor communities in most developing countries spend a significant amount of time collecting traditional fuels,<sup>11</sup> resulting in reduced time for women to learn how to read, acquire new skills,

<sup>8</sup> Financing partners contributing to the multidonor CEF are the governments of Australia, Norway, Spain, and Sweden. The financing partner contributing to the single donor Asian Clean Energy Fund (ACEF) is the Government of Japan.

<sup>9</sup> OECD/IEA. 2008. *World Energy Outlook*. Paris.

<sup>10</sup> According to the World Health Organization, one life is lost every 20 seconds to "the killer in the kitchen" or the noxious smoke from indoor fires and stoves.

<sup>11</sup> Fuel wood loads of 20 kilograms or more.

earn money, and engage in politics or other social causes. Girls are sometimes kept home from school to help their mothers gather fuel. Women and girls also become more vulnerable to sexual harassment and assault, as well as injuries from carrying heavy loads for long distances, when environmental degradation forces them to search farther for fuel. The burdens imposed on women and girls by reliance on biomass fuels define their daily routines and limit their prospects for a brighter future. CEFPF promotes access to modern and affordable energy services not only to improve the health conditions of rural women and girls but also to help enable them to benefit from income generating opportunities, education, and overall poverty alleviation initiatives.

32. CEFPF allocated over \$6 million in 2008 to four projects promoting access to CE, contributing to the poverty reduction and gender agenda:

- (i) Bangladesh: Public Private Infrastructure Development Facility (featured in 2008 semiannual progress report [SPR])
- (ii) Bhutan: Green Power Development Project—Sustainable Solar Technology Application for Rural Electrification (see Box 4)
- (iii) Regional: Promoting Access to Renewable Energy in the Pacific (see Box 4)
- (iv) Viet Nam: Preparation of Renewable Energy for Remote Island and Mountain Communes (featured in 2008 SPR)

#### **Box 4: Examples of Projects Promoting Access to Clean Energy**

##### **Bhutan: Green Power Development**

The project comprises two investment components: (i) regional clean power trade, including a 114 megawatt run of river hydro power project whose generation will be exported to India; and (ii) renewable energy access for the poor (rural electrification), including solar photovoltaic systems for 119 remote public facilities such as schools, health clinics, monasteries, etc. The Clean Energy Financing Partnership Facility will finance the implementation of the solar photovoltaic systems that will pilot the use of electric double layer capacitors for storing energy instead of batteries. The project, including the hydropower station, is expected to avoid generation of 250,000 tons of carbon dioxide (tCO<sub>2</sub>/year starting 2012 and 500,000 tCO<sub>2</sub>/year thereafter.

##### **Regional: Promoting Access to Renewable Energy in the Pacific**

The Clean Energy Financing Partnership Facility's resources will be used to fully finance this project intended to promote populations' access to and use of sustainable, safe, reliable, affordable, and versatile renewable energy (RE) products in Papua New Guinea, Solomon Islands, and Vanuatu; and increase the capacity of market actors in this regard. The first phase will identify a list of sustainable RE demonstration projects specific to rural communities in the Pacific where implementation cost is small and potential for replication, scale-up, and demonstration effect is large. The second phase of the project will fund at least nine demonstration projects on sustainable delivery models, financing arrangements, and utilization by the target communities, and inform broader Pacific developing member countries on access to RE. Larger projects will be identified and detailed project plans developed, establishing a pipeline of at least five RE projects, including identified funders and borrowers.

### **III. FINANCIAL STATUS**

33. In addition to the milestones set by the facility's DMF, CEFPF set specific targets for (i) partner contributions, (ii) resource utilization, and (iii) resource allocation structure as detailed in CEFPF's 2008 annual work program (AWP). Overall, CEFPF's management is generally satisfied with its performance against these targets as detailed in the succeeding paragraphs.

## A. Financing Partner Contributions and Status of Grant

34. Per the 2008 AWP, CEFPF targeted to secure \$50 million in contributions from financing partners. Throughout the year, ADB actively promoted CEFPF to the donor community and strengthened its network of financing partners. Discussions continue with the governments of Canada, Finland, Portugal, Sweden, Switzerland, and the United Kingdom. However, as shown in Table 2, CEFPF received only \$39.8 million in remittances (adjusted for interest/investment income and foreign exchange gains/losses) in 2008: \$16.2 million from the governments of Australia, Norway, Spain, and Sweden into the multidonor CEF, and \$23.6 million from the Government of Japan (GOJ) into the single donor ACEF. (As shown in Table 2, of the \$39.8 million, \$18.6 million were allocated to projects and \$0.6 million to corresponding fees.) Other expected commitments were deferred due to strategy reviews of some financing partners.

**Table 2: CEFPF Fund Status, as of 31 December 2008**

Financing Partner	Contributions	Allocations (\$ millions)			Balance
		Projects <sup>a</sup>	Fees	Total	
<b>CEF (Multidonor)</b>	<b>16.2</b>	<b>8.1</b>	<b>0.3</b>	<b>8.4</b>	<b>7.8</b>
Contribution Received					
Australia	6.5				
Norway	3.2				
Spain	1.4				
Sweden	5.0				
Interest/Investment Income	0.1				
<b>ACEF (Single Donor)</b>	<b>23.6</b>	<b>10.5</b>	<b>0.3</b>	<b>10.8</b>	<b>12.8</b>
Contribution Received (Japan)	23.1				
Interest/Investment Income	0.5				
<b>Total</b>	<b>39.8</b>	<b>18.6</b>	<b>0.6</b>	<b>19.2</b>	<b>20.6</b>

ACEF = Asian Clean Energy Fund, CEF = Clean Energy Fund, CEFPF = Clean Energy Financing Partnership Facility.

<sup>a</sup> As approved by the Climate Change Steering Committee. For ACEF, the Government of Japan has concurred with \$4.5 million out of the \$10.5 million allocations and is still considering the \$6 million.

Source: Asian Development Bank estimates.

35. The unaudited status of grant as of 31 December 2008<sup>12</sup> for both CEF and ACEF, prepared by ADB's Controller's Department is presented in Appendix 9. As of this reporting period, the total amount available to CEF inclusive of investment and interest income is \$20,735,275.24. Contributions of \$16,087,418.16 were received by CEFPF in total by end-2008, plus \$131,308.11 in interest/investment income and gains/losses on the foreign exchange. Of the around \$16.2 million, \$3,290,000 were committed to 10 projects already being implemented (i.e., \$239,399.06 disbursed and \$3,050,600.95 outstanding); and \$1,800,000 to two projects already approved by ADB, but not yet effective. After deducting these commitments and corresponding fees from around \$20.7 million in total contributions, CEF is left with \$15,439,224.24 as the uncommitted balance available for new allocations.

36. However, for operational budgeting and planning purposes, CEFPF takes into account that receivables from the governments of Norway and Sweden (i.e., \$4,516,548.97) have yet to

<sup>12</sup> Unaudited statement; audited statement will be attached to the 2009 SPR.

be received in 2009 and 2010. Also, CEFPP allocated \$3 million to Regional: Promoting Access to Renewable Energy in the Pacific, still undergoing ADB's TA approval process by end-2008. After deducting the receivables and the allocation commitment to the Pacific regional project (and corresponding estimated fees), the actual balance available for new allocations from CEF by end-2008 (start-2009), is about \$7.8 million as shown in Table 2.

37. Total contribution available to ACEF inclusive of investment/interest income and gains/losses on the foreign exchange is reported this period at \$23,558,623.84, which ADB received fully in 2008. Of the around \$23.6 million, \$1,000,000 was committed to Bhutan: Green Power Development Project already approved by ADB, but not yet effective. After deducting this commitment and corresponding fees, ACEF is left with \$22,538,578.34 as the uncommitted balance available for new allocations. However, for operational budgeting and planning purposes, CEFPP takes into account that CEFPP allocated \$9.5 million to 5 other projects from the ACEF by end-2008; 2 are still undergoing ADB's approval process, while 3 are still waiting for GOJ's concurrence on the allocations. After deducting these 5 other allocation commitments (and corresponding estimated fees), the actual balance available for new allocations from ACEF by end-2008 (start-2009), is about \$12.8 million as shown in Table 2.

38. Finally, out of the \$18.6 million allocated, over \$0.2 million has been disbursed. This delay is in line with the time lag between project concept approval and disbursement in ADB's overall portfolio. It should be noted that CEFPP resources are allocated to TAs or GCIs at the concept paper stage. The proposed project still has to go through ADB's project approval process (where the concept paper stage is the first step). Depending on the specific DMC where the project is located, TA approval may take 4–12 months, and sometimes with up to 6 months for mobilization after that. Investment/loan approval, with the corresponding feasibility study, may take 12–15 months. In extreme cases loans may take 3 to 4 years to prepare. DCs do not undergo this TA/loan approval process. To help manage this situation, CEFPP monitors TA and GCI proposals through ADB's project approval process to be appraised on the likelihood of their timely implementation.

## **B. Resource Utilization**

39. At the start of the year, CEFPP management estimated that \$21.1 million would be allocated to CE projects and activities in 2008, about \$9.2 million from the multidonor CEF and about \$11.9 million from ACEF supported by GOJ. This projection was based on secured commitments from financing partners during the drafting of the 2008 AWP. At the end of 2008, CCSC allocated about \$18.6 million from CEFPP to 19 successful applications endorsed by CEWG, \$8.1 million (56%) from CEF and \$10.5 million (44%) from ACEF (see Figure 2). CEFPP completed all scheduled application batches, plus an interim review batch (batch 29 February).<sup>13</sup>

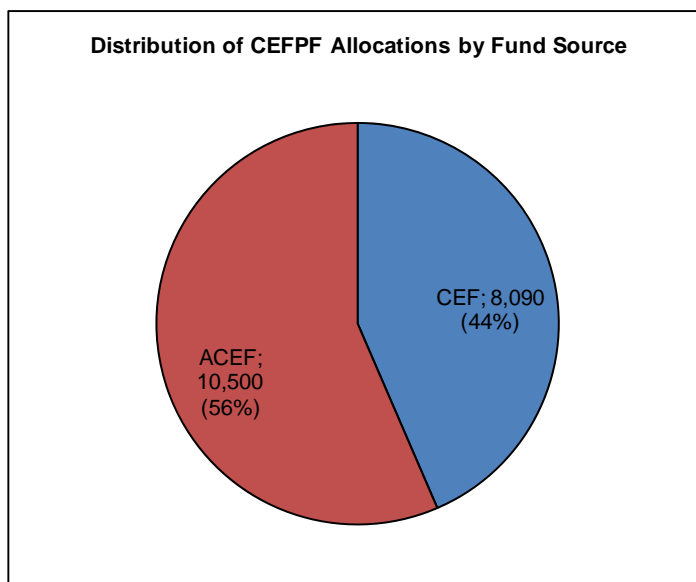
40. The CEFPP Secretariat actually received nearly \$48 million worth of requests in 41 applications during the year; 8 projects, requesting over \$8 million, were withdrawn following

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<sup>13</sup> CEWG agreed to an interim application round following the first CEWG review meeting (for batch 31 January), in order to give user departments the opportunity to consider and incorporate CEWG's first set of operational policy pronouncements/directives and comments.

discussions during the application review stage.<sup>14</sup> CEFPPF operations had to be managed within the actual flow of resources into CEF and the protracted start-up of the ACEF.<sup>15</sup>

**Figure 2: Distribution of CEFPPF Allocations by Fund Source**  
(as of 31 December 2008)



ACEF = Asian Clean Energy Fund, CEF = Clean Energy Fund,  
CEFPPF = Clean Energy Financing Partnership Facility.

Source: Asian Development Bank estimates.

41. ACEF ended 2008 with \$12.8 million remaining for allocation, pending concurrence from the GOJ for three out of the six projects submitted for financing under the fund. The scrutiny is especially focused on GCIs and the request to submit incremental cost calculations as part of the application. ADB and GOJ have been and continue to be discussing measures to streamline and better codify the system.

42. At the end of 2008, CEF showed a remaining balance of \$7.8 million which was mostly on account of the \$6.4 million in new commitments from Spain and Sweden that were received in late December 2008. For most of 2008, CEF ended each review batch with a low remaining balance. For instance, by mid-year CEF's remaining balance was reported at only \$0.4 million. At one point, CEF had only about \$600 million available for allocation. Since the CEWG set an operating practice that it would not recommend allocations beyond the amount of actual remittances received from the financing partners (to ensure that actual funds are readily available to successful applications), CEF could not accommodate more projects until additional remittances had been received.<sup>16</sup>

<sup>14</sup> CEFPPF's Secretariat reviews applications for eligibility against the CEFPPF IGs and alignment with the CEFPPF DMF. Given limited financing, CEWG reviews applications for the relative technical and strategic merits of the application and project concept against the CEFPPF DMF and ADB's development strategies in general.

<sup>15</sup> In December 2008, ADB and GOJ agreed that ACEF's IGs will be revised to include new requirements, including two-stage processing for soliciting GOJ's concurrence on GCIs and submission of incremental cost calculation based on the Global Environment Facility's method until a new method is agreed upon.

<sup>16</sup> During such times, the CEWG allocated resources from the CCF, which had \$25 million earmarked for CE financing, to support some of the CE proposals that could not first be accommodated under CEFPPF.

43. Finally, in 2008, CEFPP budgeted \$1.4 million for DCs, or approximately 6% of anticipated resources. To help manage CEFPP's limited cash, and to ensure that DCs were not used as a way to circumvent the TA resource allocation, review, and approval process, the CEWG agreed that project-specific requests for CEFPP financing using DCs (e.g., a feasibility study for a specific project/site) will be limited to \$75,000 covering 2–3 person-months. This restriction does not apply to regional DC requests. Table 3 shows the distribution of DC allocations and Box 5 shows examples of successful applications using DCs.

**Table 3: 2008 CEFPP Use of Funds**

Use of Funds	Allocations		
	Budget (\$'000)	Actual (\$'000)	Actual Ratio <sup>a</sup>
Grant Component of Investments (GCI)	14,814	10,100	54%
Technical Assistance (TA)	4,949	8,000	43%
Direct Charge (DC)	1,400	490	3%
Knowledge, Capacity and Innovations Services	500	20	
Expert Services for Projects Support	750	440	
Regional Partnership Development	30	30	
Facility Operations Support	120	-	
<b>Total</b>	<b>21,163</b>	<b>18,590</b>	

<sup>a</sup> The target GCI:TA ratio is 70:30, where DCs are counted with the TAs.

Source: Asian Development Bank estimates.

**Box 5: Examples of Clean Energy (CE) Projects Using Direct Charges**

**India: Initial ADB Loan Due Diligence Preparatory Work for Solar Thermal Power Plant Project in Rajasthan**

Clean Energy Financing Partnership Facility (CEFPP) resources were used to finance expert services for the pre-feasibility study on the development of a 25–50 megawatt (MW) solar thermal power plant in Rajasthan, expected to reduce 40,000 tons of carbon dioxide per year. The thermal power plant is part of a larger initiative of the Government of India (GOI) and the Indian Renewable Energy Development Agency Limited (IREDA) to develop various kinds of solar-power generation pilot projects. GOI has already requested the Asian Development Bank to provide a sovereign financial intermediary loan to IREDA with GOI's guarantee.

**People's Republic of China: Zhangbei Wind Power**

CEFPP was tapped to help finance studying the feasibility of providing nonsovereign support to the construction of a 100-MW wind power facility, with significant demonstration effects in Zhangbei County, Hebei Province. Overall, the potential project aims to deploy new and reliable wind turbines to enhance the utilization of indigenous renewable sources, fostering local economic development and poverty reduction; displace burning fossil fuels for electricity generation; and increase the share of electricity from renewable energy in the power grid, reducing greenhouse gas emissions.

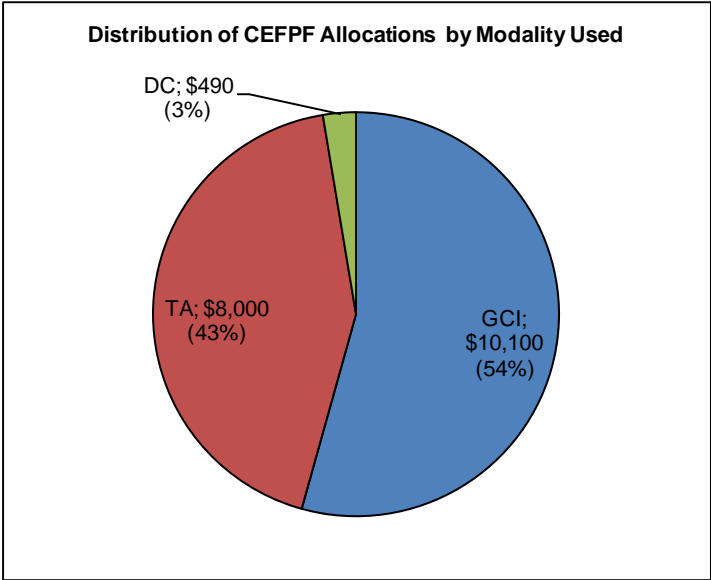
**Regional: Asia Clean Energy Forum**

The Asia Clean Energy Forum serves as a platform for exchanging experiences and forging new partnerships to advance CE solutions in the region. Here, leading policymakers and practitioners highlight proven results and strategies at the intersection of policy, finance, and implementation. Knowledge, experiences, and best practices on clean energy policy, finance, and technology deployment are shared and disseminated. In 2008, CEFPP joined the forum's growing roster of co-sponsors for the event, including United States Agency for International Development, the Asia-Pacific Partnership on Clean Development and Climate, Asia-Pacific Economic Cooperation, and Cities Development Initiative for Asia.

**C. Resource Allocation Structure**

44. Per the CEFPP’s IGs, CEFPP targets that, overall, about 70% of its resources will be used for GCIs, and about 30% will be used for standalone TA projects and DCs. In 2008, CEFPP allocated approximately \$18.6 million (to 19 projects), with an allocation ratio of about 54% to GCIs versus 46% to standalone TAs and DCs (see Figure 3). This discrepancy from the target ratio was the result of greater regional distribution of projects and the greater share of advisory and project identification support needed by the new regions included. Please see Appendix 10 for details on CEFPP’s allocations, including use of funds, fund source and regional distribution.

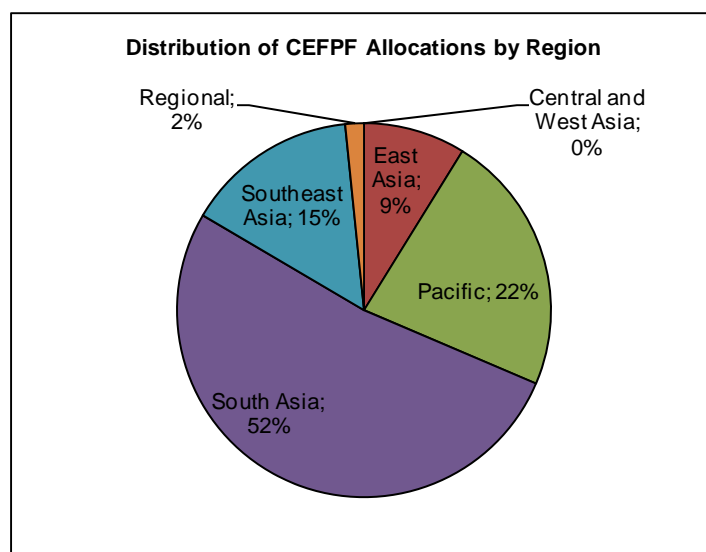
**Figure 3: Distribution of Allocations by Modality Used to Access CEFPP,**  
(as of 31 December 2008)



CEFPP = Clean Energy Financing Partnership Facility, GCI = grant component of investment, TA = technical assistance.  
Source: Asian Development Bank estimates.

45. In the middle of 2008, CEFPP's GCI:TA ratio was at 69:31. At that time, 86% of its projects were in East Asia and South Asia (mostly in PRC and India), with 70% of allocations to both regions in GCIs. However, during the latter half of 2008, allocations shifted to Southeast Asia and the Pacific, increasing the regions’ combined share of total allocations from 14% (by end-June) to 37%, and decreasing allocations to East Asia and South Asia to 61% (see Figure 4). However, 80% of CEFPP’s allocations to Southeast Asia and the Pacific were in TAs and DCs.

**Figure 4: Distribution of CEFPP Allocations by Region**  
(as of 31 December 2008)



CEFPP = Clean Energy Financing Partnership Facility.

Source: Asian Development Bank.

46. The reason for this is that more TA interventions are initially required in Southeast Asia and the Pacific to enable CE development as compared to East and South Asia, where both PRC and India already have significant investments in CE. Once initial capacity is developed, it is expected that allocations to GCIs in Southeast Asia and the Pacific will increase as a result of the TA projects and DCs that have been provided with the implementation of CE investment projects.

47. Meanwhile, as stated in CEFPP's 2008 AWP, while CEFPP will strive to allocate resources targeting a 70:30 (GCI:TA) ratio on an annual basis, the actual fund allocation each year will be based on prevailing needs and priorities. The 70:30 ratio is a target for overall facility operations throughout its existence.

#### IV. MANAGEMENT OF THE FACILITY

##### A. Steering Committee and Working Group Membership

48. One significant change to CEFPP in 2008 was the expansion of the scope of the Clean Energy Steering Committee (CESC) to take on ADB's broader climate change program. The CCSC comprises the same members and chair as the CESC. It maintains the same authority over the strategic direction of CEFPP and approval of allocations to CE projects, as well as the same relationship with CEWG. The only difference is that CCSC is also responsible for allocations for land use and adaptation projects under CCF. Participation of CCSC and CEWG members in CEFPP management was active throughout the year, meeting all their obligations effectively and efficiently.

## **B. Steering Committee and Working Group Meetings**

49. CEWG convened six times in 2008 to deliberate on and endorse project applications to CCSC for allocation, and to discuss policy and procedural recommendations regarding CEFPPF operations. There were several proposal-specific meetings between CEWG's co-chairs and the project team leaders to help improve the design of the CE project proposals. CCSC made allocations to project proposals as endorsed by CEWG. CEFPPF operations in 2008 did not necessitate a CCSC meeting during the year. Any operational challenges were resolved at CEFPPF's Secretariat and/or CEWG level.

## **C. Procedural Matters of Approvals**

50. In the course of the year, CEWG agreed to the following administrative matters:

- (i) An interim review batch (batch 29 February) was conducted, following the first CEWG review meeting on batch 31 January, to give user departments the opportunity to consider and incorporate the CEWG's first set of operational policy pronouncements/directives and comments;
- (ii) For applications to ACEF, project team leaders were required to discuss the applications with GOJ's local embassy in the country concerned;
- (iii) On issues where ACEF's IGs are silent, ACEF will be managed similarly to the CEF, following the same policies, procedures, and practices already followed by CEWG, ensuring that a unifying rationale governs both CEF and ACEF under the single CEFPPF umbrella;
- (iv) CEFPPF will consider projects not initially listed in the pipeline of projects submitted by the operations departments at the beginning of the year so as not to miss windows of opportunity that present themselves throughout the year;
- (v) Applications to ACEF for projects buying down the cost of technology must articulate an incremental cost argument;
- (vi) A maximum of \$5 million will be applied to GCIs, given the limited funds available to CEFPPF. This may be lifted in exceptional cases, or as more funds become available under CEFPPF in the future; and
- (vii) Given the flow of remittances expected from financing partners in 2008, CEFPPF will allocate no more than \$570,000 in DCs. Also, country specific requests for DCs will be limited to \$75,000. The restriction does not apply to regional applications. (By the end of 2008, CEFPPF allocated only \$490,000 in DCs to six projects.)

51. CEWG likewise agreed to the following strategic matters:

- (i) CEWG will prioritize grants for components of CE projects (and/or piggybacked TAs) of DMCs ready to borrow for CE development, enabling the implementation of more demonstration and encouraging more actual CE projects for GHG emissions reductions and energy security (versus studies only);
- (ii) As agreed with its financing partners, CEFPPF's resources will be used to incrementally increase ADB's CE portfolio. As such, the CEFPPF will prioritize projects that (a) are not already in the Country Partnership Strategy; (b) are pipeline projects proposing to integrate CE components, asking for additional/co-financing (thus, leveraging CEFPPF funds); and/or (c) have already explored/considered other funds (e.g., Japan Special Fund, Technical Support Facility, etc.) before tapping CEFPPF;

- (iii) Valuing regional balance, the East Asia and South Asia regional departments were requested to yield to other regional departments during the last two batches of the year (i.e., batch 30 September and batch 30 November), or otherwise have projects from PRC and India yield to other projects in smaller countries within their respective departments;
- (iv) CEFPP will not intervene in commercially viable projects by giving subsidized funds. CEWG noted that commercially viable projects may vary between countries;
- (v) CEFPP will explore biofuels only if (a) the base crop used is not a food crop, (b) the land cannot be used for food crops, (c) the project does not result in deforestation, and (d) the energy balance is positive; and
- (vi) CEFPP considered guidelines to justifying the use of grant money for private sector projects so as not to distort the market (see para. 69).

#### **D. Audit Compliance, Issues, and Actions**

52. The financing partners and ADB agreed to forego the audit of CEFPP's 2007 financial statements, covering the last quarter of 2007 when CEFPP operations began. No expenses were incurred during that period other than the bank fees related to the remittances of financing partners' contributions. Therefore, the audit was considered unnecessary.

#### **E. Dissemination Activities**

53. Internally, CEFPP was generally cautious in overly promoting itself, to avoid stirring too much demand for its resources that were in limited supply, and help manage the expectations and long-term patronage of its target clients. Thus, promotional activities were mainly restricted to on-demand email communication regarding CEFPP application instructions, or to discussion and sharing of basic facility information intended to help match the most appropriate applicants with CEFPP.

54. Externally, however, CEFPP was promoted on many occasions from speeches made by ADB's President, Vice Presidents, Managing Director General, and staff during various events in and outside of the region. CEFPP was also a co-sponsor of ADB's flagship annual Asia Clean Energy Forum 2008 and the Carbon Forum Asia 2008.

55. In addition, CEFPP milestones were prominently reported in ADB's Energy Efficiency Initiative Update Bulletin.<sup>17</sup> CEFPP likewise initiated the development of its own dedicated web pages, including regular updates on CEFPP's activities. The beta version is expected to be posted online in early 2009. Meanwhile, a leaflet on CEFPP produced to help operations departments in engaging client DMCs on tapping CEFPP is also available online linked to ADB's energy web pages. CEFPP's semiannual report is also available as part of ADB's energy web pages.

### **V. RELATIONSHIP WITH FINANCING PARTNERS**

56. **Collaborating with Financing Partners.** The 1<sup>st</sup> ACM between the financing partners and ADB was held in March 2008 at ADB Headquarters in Manila, Philippines. Twenty-two financing partners from 13 countries attended: Australia, Austria, Canada, Finland, Japan, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United

<sup>17</sup> Available at <http://www.adb.org/Clean-Energy/eei.asp>.

Kingdom. Participants exchanged views and provided strategic directions in a team-based approach on facility operations. Among other matters, participants agreed to enhancements to the annual report and SPR templates, and amendments to the multidonor CEF IGs.

57. In addition to the IGs, CEFPF's DMF was discussed in detail between ADB and its financing partners. Inputs were received both during and after the ACM and discussions continued until after the submission of the 2008 SPR. CEFPF's DMF has since been the key document for steering overall facility operations, especially the application review and endorsement process, ensuring that CEFPF remains focused on its goals.

58. CEFPF's first SPR was circulated to financing partners on 10 August 2008, as scheduled. Suggestions and comments received from the governments of Australia and Norway were considered in the drafting of this 2009 annual report.

59. **Responding to Financing Partners Specific Administrative Needs.** CEFPF was keen to respond to its financing partners' distinct needs, especially to those that converge with CEFPF's commonly agreed objectives and targets. For instance, CEFPF considered performance indicators from Australia's Climate Change Partnerships Initiative and Infrastructure Growth Initiative in developing and finalizing CEFPF's own DMF. Also, per its national policy (and footnoted in CEFPF's IGs), Australia sought a general focus on achieving GHG emissions reductions in significant Southeast Asian and Pacific countries. In this regard, CEFPF allocated approximately \$7 million to projects in the two regions, equivalent to over 100% of Australia's contributions to CEFPF.

60. During the ACM, as a contributor to the Asia Pacific Carbon Fund (APCF), Spain expressed interest in seeing a systematic link between APCF and CEFPF. A liaison was appointed to coordinate between the two funds and APCF is apprised of CEFPF activities. Project applications to CEFPF are routinely forwarded to the APCF team when carbon financing is a feasible component of the financing plan.

61. Norway noted that they wanted to see CEFPF projects provide direct impacts to the local population, especially through access to energy projects. Thus, CEFPF also works in close coordination with ADB's Energy for All Initiative to develop new approaches and methodologies for promoting access to reliable and affordable modern energy services for the poor, and scaling them up to levels that can be supported by ADB's operations departments through loans. As a result, Energy for All Initiative is proactively engaged in the implementation of a TA project fully financed by CEFPF—Promoting Access to Renewable Energy in the Pacific. Other similar projects are in the pipeline for Nepal and Viet Nam.

62. Finally, a common interest for all financing partners, whether potentially or already contributing to CEFPF, is for a pipeline of CE projects. Throughout the year, CEFPF provided financing partners with CEFPF's latest updated pipeline upon request. CEFPF's detailed pipeline of priority CE projects is available as part of CEFPF's 2009 AWP.

## VI. LESSONS LEARNED, EXPERIENCES GAINED, AND KEY CONSTRAINTS

63. **Application Review and Management System Established.** Applications for all batches were processed<sup>18</sup> in a timely manner, within 5 weeks of the application batch due date,

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<sup>18</sup> The application and review process is outlined in CEFPF IGs.

except for one batch that was delayed over a week as most of CEWG's members and the co-chairs were on mission.

**64. Applications and Management Quality Enhanced by Interdepartmental Cooperation.** The open feedback loop and cooperative relationship between CEWG, Secretariat and the project team leaders throughout the application process significantly fortified the overall quality of projects receiving allocations from CEFPP. The interaction between CEFPP's Secretariat and the project team leader begins prior to the submission of applications. As the project moves through the application process, CEWG's critical inputs further contribute to bolstering the design of the proposals. CEFPP also benefited from the highly collaborative relationship between CEFPP's Secretariat and CEWG to clearly define roles, establish timetables, and improve application templates, enhancing the overall effectiveness and efficiency in allocating CEFPP's resources. CEWG meetings were venues not only to thoroughly deliberate the merits of each application, but also to discuss strategic and administrative matters important in steering CEFPP's day-to-day operations.

**65. Operations Constrained by Limited Flow of Resources into CEFPP.** A constant challenge was the need for greater resource amounts available for allocation, especially in the first half of the year. In 2008, of the \$18.6 million allocated to 19 projects, \$15.8 million were allocated to 17 successful project applications by midyear. Also, all of CCF's \$19.8 million allocations were made by August 2008. The year's experience shows that the demand for CEFPP's resources concentrate during the first four batches of the year with fewer applications tabled during the last two batches. This corresponds with ADB's project processing cycle, with new projects being initiated early in the year.

66. To help manage its resource availability internally, CEFPP's Secretariat works with the operations departments to prioritize projects and free allocations to projects experiencing unexpected delays in acquiring ADB's approval. If a project is unable to progress significantly within 6 months of receiving CEFPP's allocation commitment, the allocation is taken back from the project and returned to CEFPP's pool of funds for financing new applications.

**67. CE Technology Investments Balanced with TA and DC Interventions.** Another challenge for CEFPP was to ensure that its limited resources are used to leverage significant shifts in the energy path of DMCs. CEFPP was faced with the task of balancing allocations to investments in technology and infrastructure that directly contribute to GHG emissions reductions versus allocating resources to continue preparing DMCs by developing their institutional and technical capacity, as well as regulatory framework to adopt them effectively. Supporting the former set of activities increased allocations to larger DMC economies that are relatively ready to absorb the new technologies. Supporting the latter restricted CEFPP's contribution to the immediate reduction in global GHG emissions. In response, CEWG made a conscious decision to take a long-term view and provide more support to TA activities and strengthen the capacity of a larger number of DMCs with weaker institutional capacities for developing alternatives to traditional carbon-based energy technologies. Consequently, this decision reflected in CEFPP's GCI:TA ratio, ending the year with a 54:46 ratio instead of 70:30.

68. The past year saw ADB's first use of DCs (counted among the TAs in CEFPP's GCI:TA target ratio). To help manage the use of DCs, and to uphold the value of strategic planning and implementation, CEWG agreed to limit DC allocations to \$75,000 for single country applications, and a larger amount for regional activities on an exceptional basis. Guided by this, CEFPP was able to accommodate all DC applications in 2008 while limiting DC allocations to about 5% of total CEFPP resources available for allocation in 2008, as targeted in CEFPP's 2008 AWP.

69. **Potential for Market Distortion in Using CEFPP Grant Financing to Promote Private Sector Participation in CE Development Explored.** ADB believes that private sector investments are critical for CE to become a more significant part of the energy infrastructure in the region. Financing solutions that include greater private sector participation are needed to help bridge the gap between development assistance and the actual investments required to develop CE infrastructure in the next few decades.<sup>19</sup> The challenge for CEFPP was to define the parameters of financing interventions to encourage private sector participation in CE development considering the potential market distortions of applying grant resources to help defray the investment costs of a commercial venture. In this regard, CEWG consulted with other multilateral development banks, especially the European Bank for Reconstruction and Development, to see how they justified the use of grant financing in private sector lending activities.

70. As a result, CEWG adopted guidelines that all multilateral development banks follow for grant use in private sector investments. Essentially (i) grant subsidies should not crowd out private sector financing; (ii) the main purpose of the grant should be to deploy CE technologies on the ground and not to increase the company's profit; and (iii) the grant will be used to finance public goods (e.g., RE resource assessments) benefiting the entire country and not just the company involved in the grant.

71. **Need for Additional Staff for CEFPP Operations.** As interest in CEFPP and the number of successful applications increased, CEFPP's activities grew not just in application processing, but in budget and program monitoring, knowledge management, and general fund administration. As the year progressed, the need to augment the number of staff required to efficiently operate CEFPP and to providing technical support to operations departments became increasingly evident. As a result, two additional consultants were hired, bringing the number of full-time CEFPP Secretariat members to three.

## VII. EXTERNAL FACTORS RELEVANT TO THE FACILITY

72. **The Global Financial Crisis and Economic Slowdown.** Clean energy remains politically popular and the imperative to transform the global energy economy despite the world's economic woes firmly validates the continued relevance of CEFPP, and the need for intensified operations amidst the crisis. Moreover, with a significant decline in oil prices from triple digit levels, Asian governments may be poised to spend tremendously on energy infrastructure and systems, to shield their economies from the global economic slowdown. CEFPP can help defray any prohibitive upfront costs, as well as finance capacity-building and policy-making activities enabling the adoption of CE technologies in economies in Asia and the Pacific, preventing the long-term lock-in to unsustainable conventional technologies.

73. ADB will continue to communicate the importance of CEFPP's activities amidst the crisis, such that CEFPP will be sufficiently supported with critical resources and a wider network to carry out its mandate, amidst the loss of value in committed contributions to CEFPP due to the strengthening of the dollar vis-a-vis financing partners' currencies. Any contributions to CEFPP may be considered insignificant compared to the economic stimulus packages being implemented by financing partners.

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<sup>19</sup> United Nations Economic and Social Commission for Asia and the Pacific. 2008. *Energy Security and Sustainable Development in Asia and the Pacific*. Bangkok.

74. **Regional Cooperation.** Regional interconnection of national grids is seen as an important way to accelerate the efficient development and widespread deployment of sustainable energy technologies.<sup>20</sup> It is also important in ensuring long-term energy security in the Asia and Pacific region. For instance, India can take advantage of the abundance of hydropower from Bhutan instead of building in-country thermal power plants. Similarly, Thailand can take advantage of hydropower from the Lao People's Democratic Republic.<sup>21</sup> In this way, regional and subregional power trade can help meet energy demand while maximizing economic and environmental benefits to the entire region.<sup>22</sup> CEFPF can likewise support projects that promote enabling policy frameworks and infrastructure for regional trade of clean energy-sourced electricity, removing barriers to increased cooperation and addressing regulatory, currency, trading, and political uncertainty risks.

75. **Climate Investment Funds (CIF).** In September 2008, Australia, France, Germany, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and the United States pledged financial support for the CIF to be used for various climate change mitigation and adaptation activities. Since its inception, ADB has been actively engaged in the establishment and operationalization of the CIF, with CEFPF's facility manager and alternate facility manager representing ADB in the working committee meetings. Where and when appropriate, CEFPF resources may be used to compliment CIF investments.

76. **Sustainable Biofuels.** In 2008, biofuels attracted increasing interest globally, for addressing energy security and climate change as a substitute for fossil fuels; and regionally to stimulate rural development, create jobs, and save foreign exchange. However, these benefits were accompanied by concerns regarding food security, specifically, that rising demand for biofuels may encourage farmers to grow crops for biofuels instead of for food, leading to reduced food production and increased food prices.<sup>23</sup> While further studies are being undertaken to assess the benefits and costs of sustainable biofuels development, CEWG agreed to consider allocations to biofuels projects only if (i) the base crop used is not a food crop (e.g., Jathropa); (ii) land used is unsuitable for food crops; (iii) no deforestation occurs (e.g., land has not been converted to plantations) to support this activity; and (iv) more energy is produced than consumed in producing the biofuel.

77. **Energy Efficient and Inclusive Transport.** The transport sector is the largest and fastest growing source of GHG emissions and received much media attention in 2008. In 2006, ADB launched the Sustainable Transport Initiative to support interventions that will shift ADB's interventions from building roads, focusing more on the use of efficient technologies, improvement of public transportation to more efficient movement of people and goods, and promotion of better land use planning. Regionally, during the United Nations Framework Convention on Climate Change's 14<sup>th</sup> Conference of the Parties held at Poznan in December 2008, a special event on "Transport and Climate Change: An Urgent Call for Action" signalled the need for better integration of the sector into the climate change agenda. ADB is leading an effort with some 15 organizations to create a better framework for addressing CO<sub>2</sub> emissions in

<sup>20</sup> OECD/IEA. 2008. *Energy Technology Perspectives*. Paris.

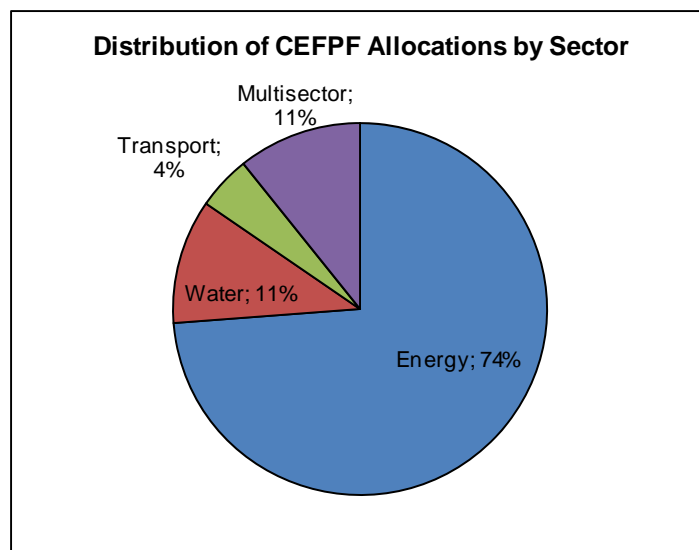
<sup>21</sup> For instance, through the Finland Technical Assistance Grant Fund that was provided under the Renewable Energy, Energy Efficiency, and Climate Change program, ADB is supporting the preparation of a small and mini hydroelectric development project in Lao People's Democratic Republic that would help displace the need for imported fossil-fuel generated electricity from Viet Nam to isolated grids in the country, and from Thailand to grid connected areas. The Finland Fund will be closed after the resources available have been allocated. ADB is in discussions with Finland to participate in CEFPF.

<sup>22</sup> ADB. 2009. *Energy Policy (Working Paper)*. Manila.

<sup>23</sup> ADB. 2009. *Energy Policy (Working Paper)*. Manila.

transportation, and integrate transportation in the post-2012 framework of the Kyoto Protocol. CEFPP will be an important source of funding to move this agenda forward. Figure 5 shows CEFPP's current exposure in the transport sector, as well as in other sectors receiving CEFPP's support.

**Figure 5: Distribution of CEFPP Allocations by Sector**



CEFPP = Clean Energy Financing Partnership Facility.

Source: Asian Development Bank estimates.

## VIII. OVERVIEW OF 2009 ANNUAL WORK PROGRAM

78. At the beginning of 2009, CEFPP has a total of \$20.6 million available to allocate to projects—\$7.8 million in the multidonor CEF, and \$12.8 million in the ACEF (see Table 2). CEFPP will also continue to collaborate with CCF for CE development in Asia and the Pacific. At the end of 2008, CCF has only \$4.2 million available for allocation to projects in 2009 (see Appendix 5). Of this amount, the CEWG endorsed an allocation of \$2.8 million for CCSC in December 2008, and final allocation is anticipated in early 2009.

79. Overall, it should be noted that the demand for CE investments in Asia is staggering. The International Energy Agency's World Energy Outlook (footnote 10) estimates that the global demand of investments in power (not including oil and gas for 2007–2030) is \$13.6 trillion or about \$600 billion per year. It further estimates that about 30% or about \$4 trillion is needed for Asia, translating into about \$177 billion per year. ADB estimates that about \$24 billion will be needed for CE in its DMCs.<sup>24</sup> This demand far outweighs the investment capabilities of even the public sector, such that ADB believes that the private sector has to be the key investor if CE is to really take root in Asia. As such, ADB investments leveraged by CEFPP will only be a drop in the ocean. However, CEFPP's resources will be maximized by supporting key investment that are catalytic because of the barriers it lowers and have high demonstrational value that will help facilitate other investments down the pipeline.

<sup>24</sup> ADB. 2006. *Technical Assistance for Supporting the Inception of the Energy Efficiency Initiative in Developing Member Countries*. Manila.

80. During the drafting of this 2008 annual report, CEFPP received the pipeline of priority CE projects for 2009 from ADB's operations departments, totaling about \$105.6 million in requests for CEFPP financing (see Table 4). CEFPP will maintain, if not surpass, the 2008 level of allocations from the combination of CEFPP and CCF, totaling \$38.4 million. Thus, CEFPP needs to raise at least an additional \$20 million<sup>25</sup> in 2009 from financing partners, the bulk of which should preferably be remitted to CEFPP's accounts by July 2009. As CEFPP's experience in 2008 shows, the demand for its resources concentrate during the first four batches versus the last two batches of the year, corresponding with ADB's project processing cycle. Based on commitments from financing partners, CEFPP will receive about \$3 million (i.e., around \$1.4 million from Norway and around \$1.6 million from Sweden).

**Table 4: Summary of Priority CE Projects for CEFPP Financing in 2009**

Operations Department	Support Requested from CEFPP (\$'000)		
	Total	GCI	TA
Central and West Asia Department	24,170	15,000	9,170
East Asia Department	19,950	13,100	6,850
Pacific Department	2,000	–	2,000
Private Sector Operations Department	4,675	–	4,675
South Asia Department	34,725	21,000	13,725
Southeast Asia Department	20,100	16,300	3,800
<b>Total</b>	<b>105,620</b>	<b>65,400</b>	<b>40,220</b>

CCF = Climate Change Fund, CEFPP = Clean Energy Financing Partnership Facility, GCI = grant component of investment, TA = technical assistance.

Source: Asian Development Bank estimates.

81. As it did in 2008 to help maximize the impact of its limited funds, CEFPP will continuously work with ADB's operations departments in 2009 to prioritize projects based on CEFPP's target outputs, outcome and impact specified in CEFPP's DMF, and ADB's Strategy 2020. ADB's draft Energy Policy 2009 has identified EE and RE as the first of three pillars (the other two pillars are access to energy, and sector reform and governance). This allows operations departments to intensify the dialogue with DMCs during the country programming strategy preparation stage so that more such projects are identified in the lending and non-lending pipeline for ADB assistance.

82. CEFPP will also continue to prioritize GCIs toward achieving a 70:30 GCI:TA ratio, while remaining open to DMCs' specific TA requirements to build capacities, policies, and institutions that enable CE development. CEFPP will likewise continue to strive to achieve regional balance in its allocations, prioritizing regions that received disproportionately less resources in 2008. Apart from conducting the regular review of applications and allocation of resources, monitoring activities will increase in 2009 as 19 projects receiving CEFPP allocations enter the

<sup>25</sup> CEFPP overall target resources: \$250 million.

implementation phase. Finally, CEFPP will continue to collaborate closely and strengthen its relationship with its financing partners to leverage resources and promote CE development in Asia and the Pacific toward attaining energy security in the region and addressing global climate change. CEFPP's 2009 AWP, under separate cover, elaborates further on CEFPP's planned activities and targets for 2009.

## CLEAN ENERGY FINANCING PARTNERSHIP FACILITY<sup>1</sup> OVERVIEW AND GOVERNANCE STRUCTURE

### A. Overview

1. Energy use in developing member countries (DMCs) of the Asian Development Bank (ADB) is rapidly increasing to support the economic growth needed to raise the living standards of large populations. The current energy path relies on increased use of fossil fuels and is neither environmentally sustainable nor economically desirable. The Clean Energy Financing Partnership Facility (CEFPF) as encapsulated in its design and monitoring framework was developed to bolster ADB's response to the dual issues of energy security and climate change confronting its DMCs today. As in all operations of ADB, the approach to helping DMCs in this area is anchored in poverty reduction and pro-growth strategies leading toward sustainable development.

#### 1. Objectives and Scopes

2. Established in April 2007, the CEFPF aims to help provide financing to DMCs to improve energy security and transition to low carbon economies through cost effective investments in technologies and practices that result in greenhouse gas mitigation. CEFPF resources also finance policy, regulatory, and institutional reforms that encourage clean energy (CE)<sup>2</sup> development. Potential investments include (i) deployment of new CE technology; (ii) projects that lower the barriers to adopting CE technologies, e.g., innovative investments and financing mechanisms, and bundling of smaller CE projects; (iii) projects that increase access to modern forms of clean and efficient energy for the poor; and (iv) technical capacity programs for CE.

#### 2. Eligible Activities

3. About 30% of CEFPF's resources will be used for standalone technical assistance projects and direct charges that fund consulting services and related equipment and works needed to achieve technical assistance and direct charges objectives; and about 70% will be used for grant components of investments and may also be used to procure equipment and works based on advanced technologies, back financing mechanisms or risk sharing facilities to promote CE, and services to lower barriers. CEFPF's Implementation Guidelines detail the facility's eligibility criteria. Following are examples of activities supported by CEFPF:

- (i) Biomass/biofuel/biogas;
- (ii) Rural electrification/energy access;
- (iii) Distributed energy production;
- (iv) Waste-to-energy projects;
- (v) Demand-side management projects;
- (vi) Energy efficient district heating;
- (vii) Energy efficient buildings and end-use facilities;
- (viii) Energy efficient transport;
- (ix) Energy efficient streetlighting;
- (x) CE power generation, transmission, and distribution;

<sup>1</sup> Financing partners contributing to the multidonor Clean Energy Fund are the governments of Australia, Norway, Spain, and Sweden. The financing partner contributing to the single donor Asian Clean Energy Fund is the Government of Japan. Committed and expected contributions as of 31 December 2008 total \$87.9 million. Overall target: \$250 million.

<sup>2</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency, and cleaner fuel.

- (xi) Manufacturing facilities of CE system components, high efficiency appliances and industrial equipments; and
- (xii) Energy service company development.

### **3. How to Apply**

4. User departments will submit project proposals to the Facility Manager using CEFPP's application form and ADB's standard concept paper template. Applications are reviewed in six batches and are due on: 31 January, 31 March, 31 May, 31 July, 20 September, and 30 November. The Clean Energy Working Group will review and endorse project proposals based on CEFPP's Implementation Guidelines, guided by CEFPP's design and monitoring framework, both agreed between CEFPP's financing partners and ADB. The Climate Change Steering Committee finally allocates resources to selected project proposals. Following fund allocation from CEFPP, the approval of the proposed CE project follows the normal ADB procedure.

**B. Governance Structure (Based on CEFPF Implementation Guidelines)**

<b>Party</b>	<b>Responsibilities</b>
<b>Financing Partners</b>	
Members: CEFPF contributors	<ul style="list-style-type: none"> <li>(i) Provide strategic direction to CEFPF</li> <li>(ii) Meet with the Asian Development Bank for annual consultation</li> <li>(iii) Review progress and administration and annual work program</li> </ul>
<b>Climate Change Steering Committee (CCSC)<sup>a</sup></b>	
<b>Chair: Director General, RSDD</b> <b>Secretariat: RSID</b> Members: Directors general of user departments, and Chief Economist	<ul style="list-style-type: none"> <li>(i) Provide strategic direction to CEFPF</li> <li>(ii) Director General, RSDD approves CEFPF policy and procedures</li> <li>(iii) Approves allocation of funds to applications for TAs and grant components of investments</li> </ul>
<b>Clean Energy Working Group (CEWG)</b>	
<b>Co-Chairs: Deputy Director General, PSOD and Director, EAEN (also Co-Chairs ADB's Energy Community of Practice)</b> <b>Secretariat: RSID</b>  Members: Energy specialists nominated by the co-chairs as members	<ul style="list-style-type: none"> <li>(i) Review and endorse proposals for CEFPF support</li> <li>(ii) Recommend policy and procedures of CEFPF to CCSC</li> </ul>
<b>CEFPF Manager (RSID)</b>	
<b>Manager: Director, RSID or Designate</b> Assistant: A team of staff and consultants	<ul style="list-style-type: none"> <li>(i) Serve as Secretariat and oversee CEFPF day-to-day operations</li> <li>(ii) Oversee review process for applications</li> <li>(iii) Review applications for compliance with Implementation Guidelines for use of funds</li> <li>(iv) Prepare annual work program and progress reports</li> <li>(v) Serve as focal point for CEFPF partners for technical matters</li> </ul>
<b>Office of Cofinancing Operations (OCO)</b>	
<b>Contact: Designated by Principal Director, OCO</b>	<ul style="list-style-type: none"> <li>(i) Facilitate partner contributions to CEFPF</li> <li>(ii) Communicate on financial issues among the partners</li> <li>(iii) Lead negotiations with partners on financial and procedural agreements for CEFPF contributions and framework agreement</li> </ul>

CEFPF = Clean Energy Financing Partnership Facility, EAEN = Energy Division, East Asia Regional Department, PSOD = Private Sector Operations Department, RSID = Sustainable Infrastructure Division, RSDD = Regional and Sustainable Development Department.

<sup>a</sup> Functions of the Clean Energy Steering Committee under the CEFPF will now be carried out by the Climate Change Steering Committee, as per memorandum circulated from the Vice President, Knowledge Management and Sustainable Development, to the Directors General of the operations departments and the Chief Economist on 18 June 2008.

## CLEAN ENERGY FINANCING PARTNERSHIP FACILITY'S DESIGN AND MONITORING FRAMEWORK

1. The Clean Energy Financing Partnership Facility (CEFPF) as encapsulated in its design and monitoring framework was developed to bolster the Asian Development Bank's (ADB) response to the dual issues of energy security and climate change confronting its developing member countries (DMCs) today. As in all its operations, ADB's approach to helping DMCs in this area is anchored in poverty reduction and pro-growth strategies leading toward sustainable development. In this regard, ADB recognizes and responds to the following opportunities and threats:

- (i) The unprecedented economic and population growth in the Asia and Pacific region consequently leads to rapid increases in the region's energy demand with unsustainable implications on the environment;
- (ii) The volatility of international oil prices places an additional, disproportionate burden on developing countries, encouraging oil importing countries to consider comprehensive approaches to energy security including short-term risks to economic growth;
- (iii) To address energy security, recent studies<sup>1</sup> suggest (a) aggressively pursuing energy efficiency to reduce energy consumption, (b) diversifying the energy portfolio, (c) managing market volatility, (d) managing reserve stock, and (e) developing macroeconomic policy frameworks including comprehensive plans to mitigate energy supply risks;
- (iv) Studies<sup>2</sup> show that Millennium Development Goals targets cannot be met without modern energy services, thus, access to energy is a critical element to reducing poverty;
- (v) In the absence of energy services, the rural poor resort to traditional biomass use, resulting in higher incidences of health-related problems, especially affecting women and children;
- (vi) The preferred option for the poor is to replace the coal and kerosene more commonly used with liquefied petroleum gas, natural gas and electricity, as well as to use modern cooking stoves efficiently fueled by various biomass;
- (vii) The Asia and Pacific region expects profound impacts from rapid climate change, especially affecting its poorest population, and hindering long-term efforts to create a healthier, prosperous, and sustainable region;
- (viii) To significantly reduce and stabilize greenhouse gas (GHG) concentration levels in the atmosphere, the international community is advocating for (a) transforming the way energy is used, (b) promoting research and development, (c) financing the transition to cleaner energy, (d) managing the impact of climate change, and (e) tracking illegal logging;
- (ix) Recent studies<sup>3</sup> show that that carbon dioxide emissions can be maintained at today's level of around 400 parts per million with firm policy decisions beginning with energy conservation and efficiency, avoiding excess consumption, wastage, and energy use;
- (x) While research continues, carbon emission reducing technologies are already available and must be transferred to developing countries; and

<sup>1</sup> The World Bank. 2005. *Energy Security Issues*. Washington, DC.

<sup>2</sup> Modi, V., S. McDade, D. Lallement, and J. Sagher. 2006. *Energy Services for the Millennium Development Goals*. Emergency Sector Management Assistance Program, United Nations Development Programme, UN Millennium Project: New York and Washington, DC. The World Bank.

<sup>3</sup> Scolow, R, and S. Pascala. 2006. *A Plan to Keep Carbon in Check*. Scientific American. September, New York.

- (xi) Supporting policy decisions, enabling legislation, substantial finance, and private sector participation will be needed to effect meaningful change.

2. ADB's unique experience and regional sector knowledge enables ADB to effectively address energy security and climate change concerns through specific strategies and programs, including CEFPP. It is important to note that, at the time of the development of its draft 2009 Energy Policy, ADB is mandated by its poverty reduction strategy and Strategy 2020 which identify energy as a core operational sector in driving its poverty reduction agenda. Strategy 2020 directs ADB to focus support on three distinct but complementary development agendas of the region: regional integration, inclusive economic growth, and environmentally sustainable growth, with addressing climate change a key component of this pillar. Specifically, ADB will further strengthen regional initiatives for mitigating and adapting to climate change due to Asia's rising contribution to carbon dioxide emissions.

3. ADB recognizes that energy plays a big role in addressing climate change, especially in terms of mitigation, given that GHG emissions from energy represent about half of all GHG emissions in Asia. Thus, the promotion of clean energy forms the foundation of ADB's mitigation work. Toward this end, ADB has targeted to achieve and maintain a \$1 billion clean energy portfolio in 2008 to 2010. ADB's Climate Change Program has likewise identified the scaling-up of the deployment and transfer of GHG reducing technologies motivated by the removal of barriers to these technologies, as well as financial and other incentives. Regarding financing climate change interventions, ADB identified that accessing, enhancing, and creating incentives was fundamental especially in terms of capital flows to cleaner forms of production in DMCs. Addressing investment barriers, official and concessional funding, and tapping both public and private sources of investment capital were specifically identified.

4. CEFPP is also founded on ADB's energy policy. ADB's current energy policy was approved in 1995, and the 2009 Energy Policy is being finalized. The energy policy will focus on addressing the challenges faced by the sector—meeting energy security and transition to a low carbon economy towards achieving ADB's overarching poverty reduction objective. Specifically, ADB's energy sector operations will be based on three main pillars: (i) promoting energy efficiency and renewable energy (RE); (ii) maximizing access to energy for all; and (iii) promoting energy sector reform, capacity building, and governance.<sup>4</sup>

5. Recognizing that energy efficiency is one of the most effective ways of meeting energy demand, while addressing global warming challenges, ADB has emphasized both supply-side interventions and demand side efficiency. On the supply side, ADB will also pursue new and RE sources, diversifying the source of supply for incremental energy demand. ADB has likewise identified RE as a clear option for off-grid, community-based electricity supply. Rural communities will especially benefit from the development of RE sources that contribute to agricultural productivity, health, education, communications, small business enterprise, and quality of life.

6. ADB will likewise support the development of RE grid systems that expand the reliability of power from RE sources. Presently, RE lacks the reliability needed for grid operations due to weather uncertainties and energy storage problems requiring back-up redundancy and energy, and discouraging RE use in standalone systems. In the interim, ADB will need to support the development of cleaner technologies utilizing fossil fuels to ensure access to energy and overall

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<sup>4</sup> ADB. 2008. *Energy Policy (Working Paper)*. Manila.

energy security. The main challenge hindering RE development and clean technologies with respect to coal is the former's affordability.

7. ADB is implementing CEFPP to help provide financing to DMCs in achieving energy security and transitioning to low carbon economies through cost effective investments, especially in technologies, that result in GHG mitigation. CEFPP likewise capitalizes on ADB's comparative advantage in development policy dialogue with its DMCs, grounded in strong on-field presence and solid partnerships with DMC governments. Thus, it was conceived to finance policy and institutional reforms, as well as regulatory frameworks that overcome the barriers to, and encourage, CE development. Aggressive adoption of new technologies and sound policy will enable DMC's to "leapfrog" the environmental challenges of economic development and avoid committing to infrastructure that may eventually become obsolete. Per CEFPP's Implementation Guidelines, the facility has a target 70:30 grant component of investment to technical assistance (and direct charge) ratio to give preference to demonstration and deployment of new technologies and capacity-building, facilitating their commercialization. CEFPP embodies ADB's commitment to be the Asia and Pacific region's catalyst for mobilizing greater financial flows and technology transfer to assist DMCs to achieve such leaps.

8. CEFPP works together with other ADB programs to effectively address energy security and climate change. For instance, ADB's Energy for All program gives specific attention to DMC's sustainable rural electrification efforts to provide electricity and sustainable economic potential to rural populations. ADB's Carbon Market Initiative and Asia Pacific Carbon Fund, enhances the financial sustainability of energy efficiency with additional revenue from the Clean Development Mechanism. Finally, adaptation interventions under the ADB's Climate Change Program recognizes the need to reduce vulnerability to climate change, and that mitigation measures cannot prevent the climate changes that will occur in this century because of today's atmospheric concentration of GHG.

9. Overall, CEFPP is part of ADB's comprehensive strategy to respond to the growing demands of its DMCs for policies, institutions, and investments that can achieve environmentally sustainable economic growth.

**Table A2.1: CEFPF’s Design and Monitoring Framework**

<b>Design Summary</b>	<b>Performance Targets/Indicators</b>	<b>Data Sources/ Reporting Mechanisms</b>	<b>Assumptions (A) and Risks (R)</b>
<b>Impact</b>			
Improved energy security in DMCs and decreased rate of climate change.	<p>Energy price stability achieved (i.e., barely 2% annual inflation rate) in DMCs by the year 2020</p> <p>Average CO<sub>2</sub> emissions per GDP in DMCs maintained or decreased by 2% to 5% by the year 2020</p>	<p>(a) Primary: IEA</p> <ul style="list-style-type: none"> <li>• World Energy Outlook</li> <li>• IEA Statistics</li> <li>• Key World Energy Statistics</li> </ul> <p>(b) Secondary: Ministry of Energy and Power or equivalent in DMC</p>	<p>A: Countries have reasonable oil supply policy</p> <p>A: DMCs are committed to prioritizing RE/CF/EE technologies to address energy security and climate change</p> <p>A: DMCs have secure access to the supply of new RE/CF/EE technologies</p> <p>A: GDP in DMCs is maintained or improved</p>
<b>Outcome</b>			
Increased use of clean energy	<p>RE share in energy mix increased by 2% to 5% in priority DMCs by 2020.</p> <p>Energy intensity (i.e., energy usage per unit of GDP) decreased by 2% to 5% in priority DMCs by 2020.</p>	<p>(a) Primary: IEA</p> <ul style="list-style-type: none"> <li>• World Energy Outlook</li> <li>• IEA Statistics</li> <li>• Key World Energy Statistics</li> </ul> <p>(b) Secondary: Ministry of Energy and Power or equivalent in DMC</p>	<p>A: At least one RE/EE technology is accessible and affordable for each DMC</p>

CF = cleaner fuel, CO<sub>2</sub> = carbon dioxide, DMC = developing member country, DMF = design and monitoring framework, EE = energy efficiency, GDP = gross domestic product, IEA = International Energy Agency, RE = renewable energy.

Table A2.1—Continued

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanisms	Assumptions (A) and Risks (R)
<b>Outputs</b>			
1. CE investments in DMCs increased	Amount of CE component in ADB investments increased to at least \$1 billion by 2008 and maintained through 2010	ADB PPIS database	A: Project approvals versus disbursements are counted as investments
2. Deployment of new technologies with strong demonstration effect facilitated	3 new RE/CF/EE technologies deployed in DMCs by 2010	See a, b, and c directly below	A: Projects are generating and systematically using lessons toward scaling-up and/or replication
3. Barriers to new technologies lowered	5 national and local policies enabling CE development in DMCs by 2010	(a) ADB project documents: concept clearance paper, TA, RRP, PPR, TPR, PCR, and TCR  (b) Progress updates and final reports for DC  (c) Appropriate ministries in DMCs involved in the project	A: Major barriers to adopting CE technologies are identified and prioritized  A: The development of national and local policies is coordinated with ADB
	At least 3 financing models suitable for bundling small CE investment projects used in DMCs by 2010	See a, b, and c directly above  LFIs in DMCs involved in the project	
	Knowledge/information-education-communication products and capacity-building services promoting and enabling CE development provided to DMCs by 2010	See a, b, and c above	A: Knowledge products and capacity services are effectively targeting policy and decision makers

ADB = Asian Development Bank, CE = clean energy, CF= cleaner fuel, DC = direct charge, DMC = developing member country, EE= energy efficiency, LFI = local financial institution, PCR = project completion report, PPIS = Project Processing Information System, PPR = project performance report, RE = renewable energy, RRP = report and recommendation of the President, TA = technical assistance, TCR = technical assistance completion report, TPR = technical assistance performance report.

Table A2.1—Continued

Activities and Milestones (for years 2008–2010)	Inputs (for years 2008–2010)
<p>1.1 Pool grants from multilateral and bilateral sources</p> <ul style="list-style-type: none"> <li>• Promote CEFPPF to the multilateral and bilateral donor community</li> <li>• Build and maintain network of financial partners</li> <li>• Secure \$250 million equivalent in combined multidonor and single donor funds</li> <li>• Maintain relations with financing partners through annual consultation meetings, as well as submission of annual work programs, annual reports, semiannual progress reports</li> </ul> <p>1.2 Explore and develop innovative investment programs and financing mechanisms</p> <ul style="list-style-type: none"> <li>• Engage expert services to develop innovative investment programs and financing mechanisms</li> <li>• Develop new and innovative investment programs and financing mechanisms</li> <li>• Implement investment programs and financing mechanisms in priority DMCs</li> <li>• Monitor and evaluate results of programs and financing mechanisms</li> <li>• Use lessons to innovate for more effective investment programs and financing mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>• \$250 million for CEFPPF to facilitate investments</li> <li>• 12 person-months of ADB professional staff</li> <li>• 48 person-months of domestic consultants</li> <li>• 60 person-months of international consultants</li> <li>• ACEF</li> <li>• 2–3 technical studies</li> <li>• 4–5 workshops</li> </ul>
<p>1.3 Finance proven investments in smaller energy efficiency projects</p> <p>1.4 Finance investments that increase the percentage of people with access to CE in rural and urban areas</p>	
<p>2.1 Finance technology transfer costs of pre-commercial (i.e., proven and ready for deployment) CE technology catalyzing mainstream adoption</p>	<p>} Activities for 1.3, 1.4, 2.1, and 3.1</p>
<p>3.1 Finance technical and capacity building programs for CE in DMCs</p> <ul style="list-style-type: none"> <li>• Develop CEFPPF Implementation Guidelines, and update as necessary</li> <li>• Initiate call for proposals/applications to the CEFPPF six times a year</li> <li>• Review and prioritize proposals per the CEFPPF Implementation Guidelines</li> <li>• Allocate available resources to finance 1.3, 1.4, 2.1, and 3.1</li> <li>• Monitor and evaluate results of financed proposals</li> </ul>	

ACEF = Asia Clean Energy Forum, ADB = Asian Development Bank, CE = clean energy, CEFPPF = Clean Energy Financing Partnership Facility, DMC = developing member country.

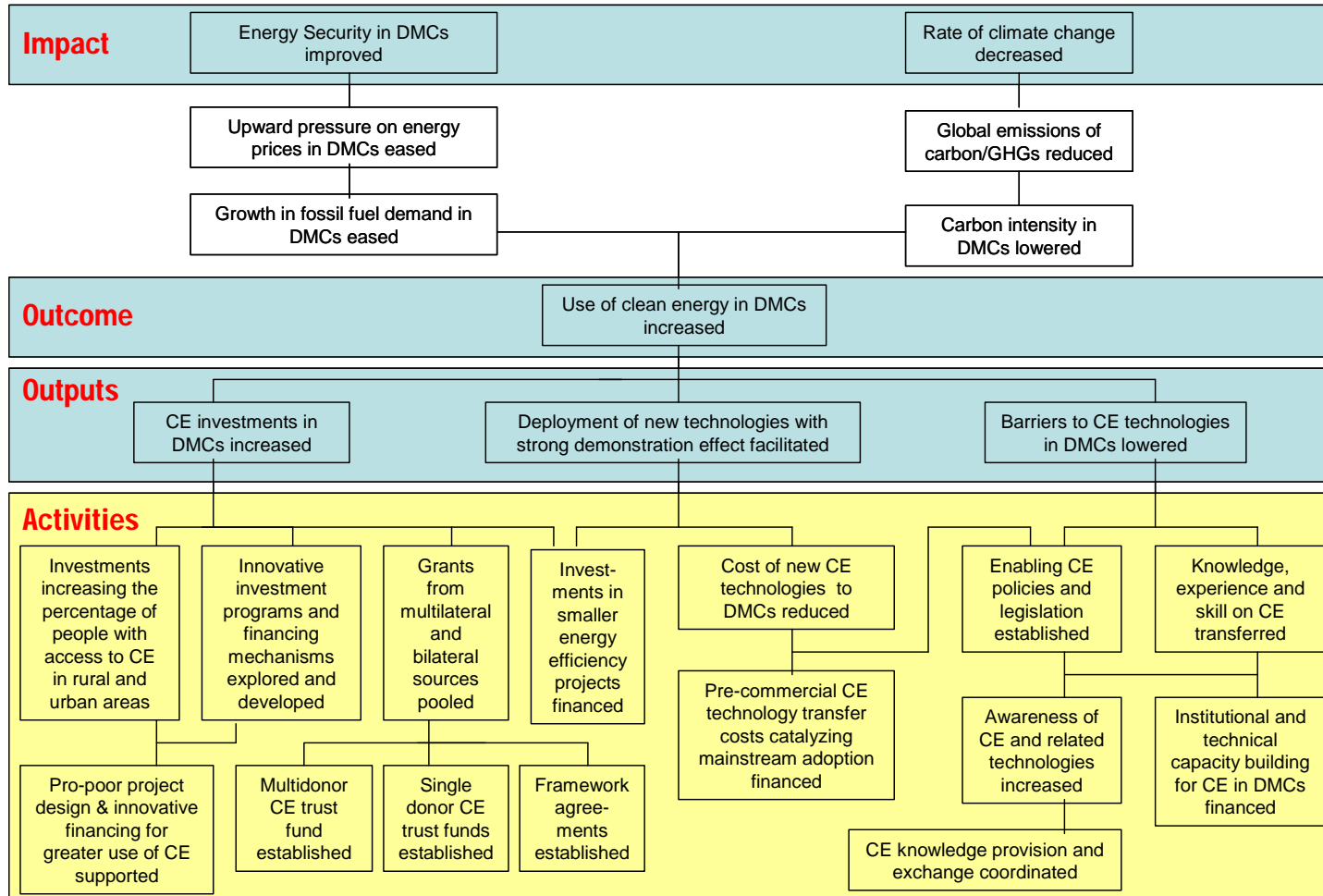
Table A2-1—Continued

Activities and Milestones (for years 2008–2010)	Inputs (for years 2008–2010)
3.2 Coordinate CE knowledge provision and exchange <ul style="list-style-type: none"> <li>• Disseminate lessons learned in project report documents and publications</li> <li>• Produce technical studies that enable the increased use of CE in DMCs (given available resources)</li> <li>• Network with other institutions to maximize information dissemination and acquisition on best practices, model templates and procedures, advocacy, and the like</li> <li>• Co-sponsor annual Clean Energy Forum</li> <li>• Engage and deploy expert services to operations departments to aid in project planning, design implementation, monitoring and evaluation, and adaptive management</li> <li>• Update technical and management capacity to support progressive CEFPF implementation</li> </ul>	

CE = clean energy, CEFPF = Clean Energy Financing Partnership Facility, DMC = developing member country.

Figure A2.1: CEFPF Results Chain

### CEFPF Results Chain



**ENERGY INTENSITY AND CARBON INTENSITY  
IN SELECTED DEVELOPING MEMBER COUNTRIES**

Country	Energy Intensity				Carbon Intensity		
	2000 US\$PPP /KOE	KOE/US\$P PP	Year	Data Source	KgCO <sub>2</sub> / 2000 US\$ PPP	Year	Data Source
AFG	no data	no data	2004	UNDP	no data	2004	UNDP
BAN	10.5	0.095	2004	UNDP	0.14	2006	IEA
BHU	no data	no data	2004	UNDP	no data	2004	UNDP
CAM	no data	no data	2004	UNDP	0.11	2006	IEA
PRC	4.4	0.227	2004	UNDP	0.65	2006	IEA
COO	no data	no data	2004	UNDP	no data	2004	UNDP
IND	5.5	0.182	2004	UNDP	0.34	2006	IEA
LAO	no data	no data	2004	UNDP	0.13	2004	UNDP
MON	no data	no data	2004	UNDP	1.93	2006	IEA
NEP	4	0.250	2004	UNDP	0.08	2006	IEA
PHI	7.9	0.127	2004	UNDP	0.17	2006	IEA
PNG	no data	no data	2004	UNDP	0.19	2004	UNDP
SAM	no data	no data	2004	UNDP	0.16	2004	UNDP
SOL	no data	no data	2004	UNDP	0.21	2004	UNDP
SRI	8.3	0.120	2004	UNDP	0.13	2006	IEA
THA	4.9	0.204	2004	UNDP	0.42	2006	IEA
TON	no data	no data	2004	UNDP	0.16	2004	UNDP
UZB	0.8	1.250	2004	UNDP	2.19	2006	IEA
VAN	no data	no data	2004	UNDP	0.15	2004	UNDP
VIE	4.2	0.238	2004	UNDP	0.34	2006	IEA

AFG = Afghanistan, BAN = Bangladesh, BHU = Bhutan, CAM = Cambodia, PRC = People's Republic of China, COO = Cook Islands, DMC = developing member country, IND = India, LAO = Lao People's Democratic Republic, MON = Mongolia, NEP = Nepal, PHI = Philippines, PNG = Papua New Guinea, SAM = Samoa, SRI = Sri Lanka, THA = Thailand, TON = Tonga, UZB = Uzbekistan, VAN = Vanuatu, VIE = Viet Nam, UNDP = United Nations Development Programme, IEA = International Energy Agency, KgCO<sub>2</sub> = kilogram of carbon dioxide, KOE = kilogram of oil equivalent, PPP = purchasing power parity.

Sources: UNDP. 2007. *Human Development Report 2007/2008*. New York; and International Energy Agency. 2008. *Key World Energy Statistics*. Paris.

1. Presently, the above table includes 20 developing member countries that were covered by the range of project applications received by the Clean Energy Financing Partnership Facility (CEFPPF) in 2008. As can be seen, smaller countries tend to reflect "no data" readily available. In this regard, CEFPPF will attempt to compute some of this data informed by other data sources still to be explored.

2. CEFPPF is also considering other possible indicators to measure CEFPPF's target impact, and will explore the type of data readily available in this regard. For instance:

- (i) Fuel imports reduced by xx% to xx% in target developing member countries by 2020; and
- (ii) Increased utilization of indigenous energy resources by 2020.

## RENEWABLE ENERGY SHARE IN ENERGY MIX IN SELECTED DEVELOPING MEMBER COUNTRIES

Countries	Energy Sources (GWh)												Total	% RE Share		
	Coal	Oil	Gas	Renewable Energy							Nuclear	Other Sources				
				Biomass	Waste	Hydro	Geothermal	Solar PV	Solar Thermal	Wind					Tide	
<b>AFG*</b>	-	202	-	-	-	560	-	-	-	-	-	-	-	-	762	<b>73.5%</b>
<b>BAN**</b>	-	1,526	19,824	-	-	1,293	-	-	-	-	-	-	-	-	22,643	<b>5.7%</b>
<b>BHU*</b>	-	-	-	-	-	1,932	-	-	-	-	-	-	-	-	1,932	<b>100.0%</b>
<b>CAM*</b>	-	89	-	-	-	28	-	-	-	-	-	-	-	-	117	<b>23.9%</b>
<b>PRC**</b>	1,972,267	60,634	11,931	2,504	-	397,017	-	-	-	-	-	53,088	-	2,497,441	<b>16.0%</b>	
<b>COO*</b>	-	28	-	-	-	-	-	-	-	-	-	-	-	28	<b>0.0%</b>	
<b>IND**</b>	479,955	31,222	62,475	1,907	-	99,999	-	4	-	6,166	-	17,313	-	699,041	<b>15.5%</b>	
<b>LAO*</b>	-	42	-	-	-	1,374	-	-	-	-	-	-	-	1,416	<b>97.0%</b>	
<b>MON**</b>	3,408	104	-	-	-	-	-	-	-	-	-	-	-	3,512	<b>0.0%</b>	
<b>NEP**</b>	-	4	-	-	-	2,411	-	-	-	-	-	-	-	2,415	<b>99.8%</b>	
<b>PHI**</b>	15,257	6,141	16,861	-	-	8,387	9,902	-	-	-	-	-	-	56,548	<b>32.3%</b>	
<b>PNG*</b>	-	2,419	-	-	-	925	-	-	-	-	-	-	-	3,344	<b>27.7%</b>	
<b>SAM*</b>	-	66	-	-	-	40	-	-	-	-	-	-	-	106	<b>37.7%</b>	
<b>SOL*</b>	-	55	-	-	-	-	-	-	-	-	-	-	-	55	<b>0.0%</b>	
<b>SRI**</b>	-	5,314	-	-	-	3,453	-	-	-	-	-	-	-	8,767	<b>39.4%</b>	
<b>THA**</b>	19,974	8,716	94,419	3,288	-	5,798	2	-	-	-	-	-	-	132,197	<b>6.9%</b>	
<b>TON*</b>	-	34	-	-	-	-	-	-	-	-	-	-	-	34	<b>0.0%</b>	
<b>UZB**</b>	2,235	6,501	32,844	-	-	6,127	-	-	-	-	-	-	-	47,707	<b>12.8%</b>	
<b>VAN*</b>	-	41	-	-	-	-	-	-	-	-	-	-	-	41	<b>0.0%</b>	
<b>VIE**</b>	8,941	2,482	20,586	-	-	21,454	-	-	-	-	-	-	-	53,463	<b>40.1%</b>	

AFG = Afghanistan, BAN = Bangladesh, BHU = Bhutan, CAM = Cambodia, PRC = China, People's Republic of, COO = Cook Islands, IND = India, LAO =Lao People's Democratic Republic , MON = Mongolia, NEP = Nepal, PHI = Philippines, PNG = Papua New Guinea, SAM = Samoa, SRI = Sri Lanka, THA = Thailand, TON = Tonga, UZB = Uzbekistan, VAN = Vanuatu, VIE = Viet Nam, GWh = Gigawatt-hour, PV = photovoltaic

\* 2004 Data (Data Source: <http://www.eia.doe.gov/emeu/world/country/countrybal.html>)

\*\* 2005 Data (Data Source: <http://www.iea.org/Textbase/stats/prodresult.asp?PRODUCT=Electricity/Heat>)

Currently, the above table includes 20 developing member countries that were covered by the range of project applications received by CEFPP in 2008. It is noteworthy that countries like Bhutan, Nepal, and Lao People's Democratic Republic already show a renewable energy share of 100%, around 99.8% and around 97% respectively. The Clean Energy Financing Partnership Facility continues to support allocations to projects in these countries that are:

- (i) Demonstration projects that can be up-scaled and replicated in other developing member countries in Asia and the Pacific;
- (ii) Energy access projects, increasing the number of people with access to modern forms of electricity obtained from clean energy sources; and
- (iii) Regional cooperation projects, supporting the export of clean energy to countries still showing high fossil fuel use and corresponding carbon emissions.

## CLIMATE CHANGE FUND (\$40 million)<sup>1</sup> OVERVIEW, GOVERNANCE STRUCTURE, AND FUND STATUS

### A. Overview

1. The Asian Development Bank (ADB) is working to make climate change an integral part of its entire future development work cutting across multiple sectors and covering a wide range of focus/themes. The Climate Change Fund (CCF) addresses climate change through scaling up developing member countries' (DMCs) mitigation, adaptation, forest management, and land use management activities.

#### 1. Objectives and Scope

2. On 6 May 2008, ADB established CCF to facilitate greater investments in DMCs to effectively address the causes and consequences of climate change alongside ADB's own assistance in various related sectors. CCF will invest in projects that lead to greenhouse gas (GHG) emission reductions and carbon sequestration, biological diversity conservation, and climate proofing of development plans, investments, and livelihoods.

#### 2. Eligible Activities

3. Eligible areas for use of CCF resources include climate change mitigation and adaptation activities under ADB's Climate Change Program. Specifically:

- (i) **Mitigation: Clean Energy (CE)<sup>2</sup> Development.** Proposals must be consistent with ADB's Energy Strategy, as amended from time to time, anchored in poverty reduction and pro-growth strategies. Responding to the dual issues of energy security and climate change confronting its DMCs today, CCF will prioritize interventions that (a) help DMCs achieve energy security and transition to low carbon economies through cost effective investments, especially in pre-commercial CE technologies, that result in GHG mitigation; and (b) financial, policy, and institutional reforms, as well as regulatory frameworks that encourage CE development and energy access.
- (ii) **Mitigation: Reduced Emissions from Deforestation and Degradation (REDD) and Improved Land Use Management.** Proposals must be consistent with relevant ADB sector strategies, as amended from time to time. Responding to international interest to slow deforestation and degradation rates accounting for more than 50% of anthropogenic GHG emissions in many countries of Asia and the Pacific, CCF will prioritize interventions that (a) maintain, restore, and enhance carbon-rich natural ecosystems, especially forests, and prevent these carbon sinks from becoming sources of GHG emissions; and (b) maximize co-benefits from sustainable development and the conservation of biodiversity and generation of other ecosystem services and ecological processes.
- (iii) **Adaptation.** Responding to special threats facing Asia and the Pacific, CCF will prioritize interventions that will enhance the climate resilience of infrastructure and other investments, community livelihoods and key sectors, especially in the

<sup>1</sup> ADB's ordinary capital resources.

<sup>2</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency, and cleaner fuel.

following geographic areas: (a) arid and rain-fed agricultural areas, (b) densely populated coastal lowlands and deltas, and (c) low-lying islands.

### **3. How to Apply**

4. User departments will submit project proposals to the Facility Manager using the CCF application form and ADB standard concept paper template. CE development proposals are sent to the Sustainable Infrastructure Division Secretariat, while REDD, land use and adaptation proposals are sent to the Environment and Social Safeguards Division Secretariat. Applications are reviewed in six batches and are due on 31 January, 31 March, 31 May, 31 July, 30 September, and 30 November.

5. The Clean Energy Working Group (CEWG) and Adaptation and Land Use Working Group (ALUWG) will endorse project proposals to the Climate Change Steering Committee (CCSC) based on CCF's Implementation Guidelines. CEWG reviews and endorses projects on CE development, while ALUWG reviews and endorses projects on REDD, land use and adaptation. CCSC finally allocates resources to selected project proposals.

**B. Governance Structure (Based on CCF Implementation Guidelines)**

<b>Party</b>	<b>Responsibilities</b>
<b>Financing Partners</b>	
Members: CCF contributors	<ul style="list-style-type: none"> <li>(i) Provide strategic direction to CCF</li> <li>(ii) Meet with the Asian Development Bank for annual consultation</li> <li>(iii) Review progress and administration and annual work program</li> </ul>
<b>Climate Change Steering Committee (CCSC)</b>	
<b>Chair: Director General, RSDD</b> <b>Secretariat: RSID and RSES</b> Members: Directors general of user departments, and Chief Economist	<ul style="list-style-type: none"> <li>(i) Provide strategic direction to CCF</li> <li>(ii) Director General, RSDD approves CCF policy and procedures</li> <li>(iii) Approves allocation of funds to applications for TAs and grant components of investments</li> </ul>
<b>Working Groups (CEWG and ALUWG)</b>	
<b>Co-Chairs: Deputy Director General, PSOD and Director, EAEN (also Co-Chairs ADB's Energy Community of Practice)</b> <b>Secretariat: RSID</b>  <b>ALUWG Chair: Director, RSES</b> <b>Secretariat: RSES</b>  Members: Representatives from the user departments (and ERD for CEWG), as well as any additional technical specialists nominated by the Chair(s) as members	<ul style="list-style-type: none"> <li>(i) Review and make recommendations on mitigation and adaptation related activities to be supported from CCF</li> <li>(ii) Recommend policy and procedures of CCF to CCSC</li> </ul>
<b>CCF Manager (RSID)</b>	
<b>Manager: Director, RSID or Designate</b> Assistant: A team of staff and consultants	<ul style="list-style-type: none"> <li>(i) Serve as Secretariat and oversee CCF day-to-day operations</li> <li>(ii) Oversee review process for applications</li> <li>(iii) Review applications for compliance with Implementation Guidelines for use of funds</li> <li>(iv) Prepare annual work program and progress reports</li> <li>(v) Serve as focal point for CCF partners for technical matters</li> </ul>
<b>Office of Cofinancing Operations (OCO)</b>	
<b>Contact: Designated by Principal Director, OCO</b>	<ul style="list-style-type: none"> <li>(i) Facilitate partner contributions to CCF</li> <li>(ii) Communicate on financial issues among the partners</li> <li>(iii) Lead negotiations with partners on financial and procedural agreements for CCF contributions and framework agreement</li> </ul>

ADB = Asian Development Bank, ALUWG = Adaptation and Land Use Working Group, CCF = Climate Change Fund, CEWG = Clean Energy Working Group, EAEN = Energy Division, East Asia Regional Department, ERD = Economic and Research Department, PSOD = Private Sector Operations Department, RSID = Sustainable Infrastructure Division, RSDD = Regional and Sustainable Development Department, RSES = Environment and Social Safeguards Division.

Source: Asian Development Bank.

### C. ADB's CCF—Clean Energy Development Component Fund Status, as of 31 December 2008

#### 1. CCF Fund Allocation

6. Of the \$25 million in CCF made available for allocation to clean energy development, about 79% (around \$19.8 million) were allocated to 14 projects, net of service fees (see Table A5.1). In terms of regional distribution, about 52% of the allocations are in East Asia, 22% are in South Asia, followed by 10% in Southeast Asia, and 16% to supporting regional projects (see Figure A5.1).

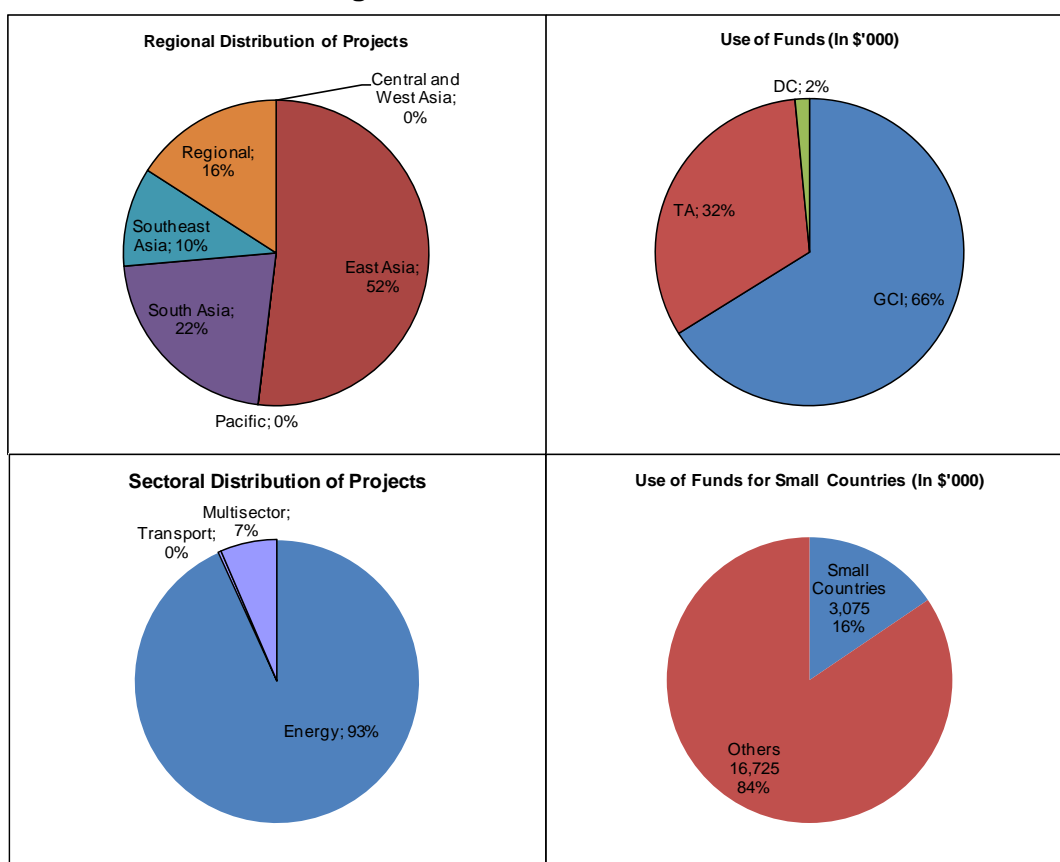
**Table A5.1: 2008 CCF Contributions and Allocations**

Financing Partner	Contributions	Allocations (\$ millions)			Balance
		Projects	Fees	Total	
CCF (ADB)	25.0	19.8	1.0	20.8	4.2
<b>Total</b>	<b>25.0</b>	<b>19.8</b>	<b>1.0</b>	<b>20.8</b>	<b>4.2</b>

ADB = Asian Development Bank , CCF = Climate Change Fund.

Source: Asian Development Bank estimates.

**Figure A5.1: CCF Portfolio Profile**



CCF = Climate Change Fund, DC = direct charges, GCI = grant component of investment, TA = technical assistance.

Source: Asian Development Bank estimates.

7. The allocation ratio of grant components of investments (GCI) to standalone technical assistance (TA) projects and direct charges (DC) is about 66% to 34% based on allocations as of November 2008 (Figure A5.1). The target ratio is 70:30 (GCI:TA).

8. About 93% (around \$18.4 million) of the CCF allocations in clean energy development fall under the energy sector about 7% (around \$1.4 million) are multisector, and the transport sector has less than 1% at \$75,000 (Figure A5.1).

9. After deducting the total project allocations and fees, \$4.2 million remain available for allocations. It is anticipated that an additional \$3 million will be allocated to support the Asian City Transport (ACT) project application, already endorsed by the Clean Energy Working Group (CEWG) for Climate Change Steering Committee (CCSC) consideration. When this happens, only \$1.2 million will be available for further allocations.

10. The CCF works together with the Clean Energy Financing Partnership Facility (CEFPF) to help DMCs transition to a low carbon economy and achieve energy security. Box A5.1 summarizes the current CEFPF fund status.

**Box A5.1: CEFPF Fund Allocation Status**  
(as of end December 2008)<sup>3</sup>

Of the \$39.8 million in Clean Energy Financing Partnership Facility (CEFPF) made available for allocation to clean energy development, about 47% (around \$18.6 million) net of service fees were allocated to 19 projects.

The \$39.8 million comprises \$16.2 million in the multidonor Clean Energy Fund (CEF)<sup>a</sup> and \$23.6 million from the Asian Clean Energy Fund (ACEF). At present, fees included, around 52% of the CEF (\$8.4 million) has been allocated, while around 46% of the ACEF (\$10.8 million) has been allocated, \$6 million of which is awaiting concurrence from the Government of Japan.

The allocation ratio of grant components of investments (GCI) to standalone technical assistance (TA) projects and direct charges (DC) is about 54% to 46% based on allocations as of 31 December 2008. The target ratio is 70:30 (GCI:TA).

About 74% (\$13.7 million) of CEFPF allocations in clean energy development fall under the energy sector, about 11% (\$2 million) for water, another 11% (\$2 million) are multisector, and the transport sector has about 4% at \$870,000.

<sup>a</sup> The multidonor CEF is supported by the governments of Australia, Norway, Spain, and Sweden, while the ACEF is supported by the Government of Japan.

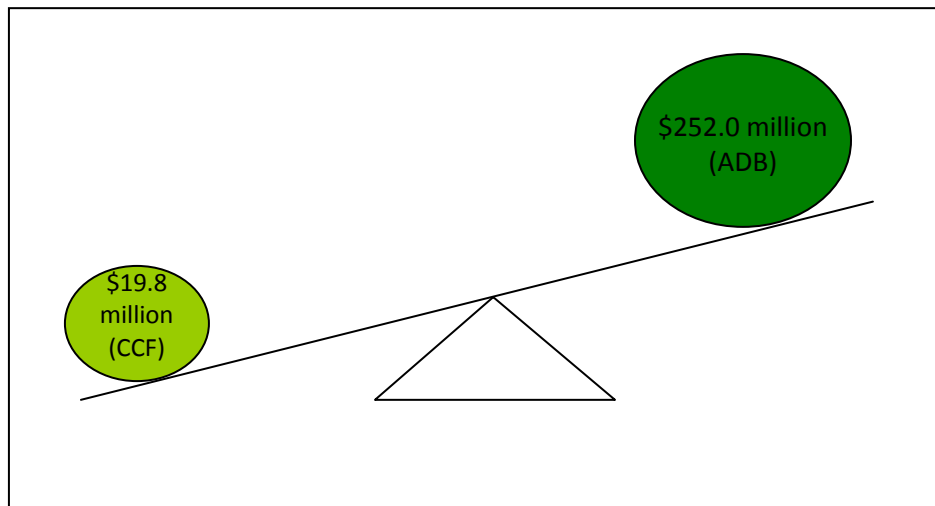
## 2. Highlights

11. **Potential Carbon Dioxide (CO<sub>2</sub>) Abated.** As of 31 December 2008, the Climate Change Steering Committee allocated CCF resources to support grant components of 11 investments/loan projects that are estimated to contribute about 2 million tons of carbon dioxide per year ( tCO<sub>2</sub>/yr) in potential CO<sub>2</sub> reductions, and 7.2 terrawatt hour in energy savings.

<sup>3</sup> The last quarter of 2007, when CEFPF began operations, is treated as part of the facility's 2008 operations.

12. **Leveraging of Allocations to Investments.** A total of \$19.8 million in allocations is anticipated to translate into \$252 million in clean energy investments (Figure A5.2). That is for every \$1 we allocate from CCF, we hope to see \$12.7 in clean energy investments.

**Figure A5.2: Leveraging of CCF Allocations into CE Investments**



ADB = Asian Development Bank, CCF = Climate Change Fund.  
Source: Asian Development Bank estimates.

13. **CCF Supports Energy Efficiency Initiative Expansion Regional Technical Assistance Focused on Smaller Countries.** A \$3 million grant from the CCF supports the expansion of the implementation of the Energy Efficiency Initiative into smaller DMCs, (i.e., Afghanistan, Bangladesh, Cambodia, Lao People's Democratic Republic, Mongolia, and Uzbekistan) through a broad range of in-country and regional activities. The grant will also be used to help develop projects for possible ADB funding that will help reduce GHG emissions and improve energy security through the scaled-up deployment of clean energy technologies in the energy markets of these DMCs. See Figure A5.1 for small countries' share of CCF use.

**Table A6.1: Technology Deployment / Adoption Stage of CEFPP-Supported Projects**

No.	Country	Project Name	Predominant Technology	Technology Development / Adoption Stage <sup>a</sup>	Barriers Lowered
1	BAN	BAN: Public-Private Infrastructure Development Facility (PPIDF)	Solar photovoltaic home systems	Deployment	
2	BHU	Bhutan Green Power Development Project - Sustainable Solar Technology Application for Rural Electrification	White light emitting diode (WLED) and solar power systems using capacitors as energy storage	Deployment	
3	PRC	Energy Efficiency Improvements in Railways Sector	Upgrading diesel locomotives, engine control and braking system; solar panel for stations and signaling in remote locations	Commercial (upgrading) / Deployment (solar)	Absence of national Energy efficiency (EE) policy and development strategy; Need to demonstrate viability of EE applications in railways, to develop EE management practices and stakeholders' capacity to implement EE projects in railways
4	PRC	Guandong Energy Efficiency Improvement Investment Program	Various energy-efficiency technologies applicable to the industrial and commercial sectors	Competitive / Commercial	Need to develop efficiency power plant (EPP) model with energy service company (ESCO) financing component; Inadequate EE awareness and lack of capacity for project development, monitoring and evaluation

BAN = Bangladesh, BHU = Bhutan, CEFPP = Clean Energy Financing Partnership Facility, EE = energy efficiency, EPP = efficiency power plant, ESCO = energy service company, PPIDF = Public-Private Infrastructure Development Facility, PRC = People's Republic of China, WLED = white light emitting diode.

<sup>a</sup> Based on Organisation of Economic Co-Operation and Development (OECD) / International Energy Agency (IEA). 2008. *Energy Technologies Perspectives*. Paris.

Source: Asian Development Bank estimates.

Table A6.1—Continued

No.	Country	Project Name	Predominant Technology	Technology Development / Adoption Stage <sup>a</sup>	Barriers Lowered
5	PRC	Zhangbei Wind Power Project	Wind power generation technology	Deployment	
6	IND	Support for Clean Power Technology Transfer Phase 1	Integrated gasification combined cycle (IGCC)	Deployment	
7	IND	Initial ADB Loan Due Diligence Preperatory Work for Solar Thermal Power Plant Projection in Rajasthan	Solar thermal power system	Deployment	
8	IND	Nagpur Water Supply (incl. energy efficiency improvement)	Non-revenue water (NRW) reduction practices; energy-efficient pumping system	Competitive / Commercial	Need to demonstrate EE applications in water supply projects, specifically through use of energy-efficient equipments and reduction of non-revenue water
9	PHI	Energy Efficiency Projects	Energy-efficient lighting: compact fluorescent lamp (CFL); spent lamp treatment & disposal technologies; buidling retrofits	Competitive / Commercial	Lack of effective ESCO-based financing models for EE financing; Inadequate capacity of existing ESCOs to develop and finance EE projects
10	PHI	Energy Logics Philippines Inc. Wind Farm Development	Wind power generation technology	Deployment	
11	REG	Asia Clean Energy Forum	None	n/a	

CFL = compact fluorescent lamp, EE = energy efficiency, ESCO = energy service company, IGCC = integrated gasification combined cycle, IND = India, NRW = non-revenue water, PPIDF = Public-Private Infrastructure Development Facility, PRC = People's Republic of China, REG = regional, WLED = white light emitting diode.

<sup>a</sup> Based on Organisation of Economic Co-Operation and Development (OECD) / International Energy Agency (IEA). 2008. *Energy Technologies Perspectives*. Paris.

Source: Asian Development Bank estimates.

Table A6.1—Continued

No.	Country	Project Name	Predominant Technology	Technology Development / Adoption Stage <sup>a</sup>	Barriers Lowered
12	REG	Carbon Forum Asia 2008	None	n/a	
13	REG	Promoting Access to Renewable Energy in the Pacific	Light emitting diodes (LEDs), wind, solar home system, bio-diesel, wave, geothermal & hydro	Commercial (LEDs, hydro & geothermal); Deployment (solar, wind); Research and development or R&D (wave)	Inadequate availability of innovative financial arrangements for renewable energy projects; general lack of capacity and awareness about renewable energy (RE) concepts and their applications among households, government and private sector
14	REG	Promoting Energy Efficiency in the Pacific	EE technologies in the energy/electricity sector	Competitive / Commercial	Inadequate policies related to energy-efficient design and construction of buildings, technology transfer on energy efficiency, and product /appliance labeling. Lack of sufficient EE awareness and educational strategy to develop sustainable Pacific EE system
15	REG	Recruitment of Clean Energy Experts	None	n/a	

EE = energy efficiency, LED = white light emitting diode, RE = renewable energy, R&D = research and development, REG = regional.

<sup>a</sup> Based on Organisation of Economic Co-Operation and Development (OECD) / International Energy Agency (IEA). 2008. *Energy Technologies Perspectives*. Paris.

Source: Asian Development Bank estimates.

Table A6.1—Continued

No.	Country	Project Name	Predominant Technology	Technology Development / Adoption Stage <sup>a</sup>	Barriers Lowered
16	REG	Transport & climate change, the missing link, how should transport address its emissions & energy use	Energy efficiency technologies and practices applicable to transport systems	Competitive / Commercial	Inadequate comprehensive data and information on transport issues related to climate change provided in a specific, simple, concrete and easily understandable manner
17	SRI	Building the Capacity of Sustainable Energy Authority (SEA)	None	n/a	
18	SRI	Demand Side Management (DSM) for Municipal Street Lighting	Energy-efficient lighting (CFL); time-of-day control	Competitive / Commercial	Need to demonstrate the viability of financing EE projects for municipalities using utility-based ESCOs
19	THA	Mainstreaming Energy Efficiency Measures for Thai Municipalities	Building retrofits; upgrading of streetlighting	Competitive / Commercial	Need to demonstrate the feasibility of scaling up municipal EE projects to build up more confidence among stakeholders in preparation for widespread replications.

CFL = compact fluorescent lamp, DSM = demand side management, EE = energy efficiency, ESCO = energy service company, SEA = Sustainable Energy Authority

<sup>a</sup> Based on Organisation of Economic Co-Operation and Development (OECD) / International Energy Agency (IEA). 2008. *Energy Technologies Perspectives*. Paris.

Source: Asian Development Bank estimates.

## PROJECT ALLOCATIONS CONTRIBUTION TOWARDS ACHIEVING CEFPF OUTPUTS

**Table A7.1: Contribution of GCIs Towards Achieving CEFPF Outputs (as of 31 December 2008)**

No.	Batch	Project Name	Sector	Country	CEFPF Allocation (In \$'000)	Outputs Performance Targets and Indicators, By 2010				
						ADB's CE <sup>a</sup> investments at least \$1 B, 2008 - 2010 (In \$'000)	3 new RE/EE/CF technologies deployed by DMCs	5 national and local policies enabling CE development in DMCs	At least 3 financing models suitable for bundling small CE investment projects used in DMCs	Knowledge products and capacity building services promoting and enabling CE development provided to DMCs
<b>Total Amounts</b>					10,100	293,530	-	-	-	-
<b>Total Projects Contributing to Outputs</b>					-	-	6	1	4	7
1	Feb 29	Public-Private Infrastructure Development Facility	Multisector	BAN	2,000	33,000	solar energy home system; biomass power plants; biogas power plants		microfinancing for Solar Home Systems and/or biomass installations for rural and semi-urban areas	capacity development of POs for effective project administration
2	May 31	Green Power Development Project -- Sustainable Solar Technology Application for Rural Electrification	Energy	BHU	1,000	25,280	solar systems (using capacitors for energy storage) in 119 public facilities			training for the operations and maintenance of the solar photovoltaic systems, including the capacitor storage
3	Jan 31	Energy Efficiency Improvements in the Railway Sector	Transport	PRC	800	60,000	upgrading diesel locomotives, engine control and braking system; solar panel for stations and signaling in remote locations	national railway EE policy and development strategy		demonstration projects for EE components / technology and management practices; capacity building for stakeholders in railway EE
4	Oct 31	Guangdong Energy Efficiency Improvement Investment Program	Energy	PRC	800	100,000			Efficiency Power Plant (EPP) model: bundling of energy projects to be financed through ESCOs	training programs and information sharing; EPP websites; templates and tools for monitoring and evaluation

ADB = Asian Development Bank, BAN = Bangladesh, BHU = Bhutan, CE = clean energy, CEFPF = Clean Energy Financing Partnership Facility, CF = cleaner fuel, DMC = developing member country, EE = energy efficiency, EPP = efficiency power plant, ESCO = energy service company, GCI = grant component of investment, PO = people's organization, PRC = People's Republic of China, RE = renewable energy.

<sup>a</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency and cleaner fuel.

Source: Asian Development Bank estimates.

Table A7.1—Continued

						Outputs Performance Targets and Indicators, By 2010				
No.	Batch	Project Name	Sector	Country	CEFPF Allocation (In \$'000)	ADB's CE <sup>a</sup> investments at least \$1 B, 2008 - 2010 (In \$'000)	3 new RE/EE/CF technologies deployed by DMCs	5 national and local policies enabling CE development in DMCs	At least 3 financing models suitable for bundling small CE investment projects used in DMCs	Knowledge products and capacity building services promoting and enabling CE development provided to DMCs
5	Feb 29	Nagpur Water Supply (incl. Energy Efficiency Improvement)	Water	IND	2,000	5,250	energy-efficient pumping system, NRW reduction practices			demonstration project for energy conservation in water sector and reduction in non-revenue water and energy costs
6	Feb 29	Energy Efficiency Project	Energy	PHI	1,500	30,000	household: CFLs; commercial / industrial: other pre-commercial end-use EE technology		EE financing through ESCOs	establishment of super ESCO, capacity building for about 5 ESCOs
7	Mar 31	Demand Side Management (DSM) for Municipal Streetlighting	Energy	SRI	2,000	40,000	energy efficient streetlighting (with CFL and sodium units)		EE financing through ESCO	utility-based ESCO model
<b>Total Amounts</b>					10,100	293,530	-	-	-	-
<b>Total Projects Contributing to Outputs</b>					-	-	6	1	4	7

ADB = Asian Development Bank, CE = clean energy, CEFPF = Clean Energy Financing Partnership Facility, CF = cleaner fuel, CFL = compact fluorescent lamp, DMC = developing member country, DSM = demand side management, EE = energy efficiency, ESCO = energy service company, IND = India, NRW = non-revenue water, PHI = Philippines, RE = renewable energy, SRI = Sri Lanka.

<sup>a</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency and cleaner fuel.

Source: Asian Development Bank estimates.

**Table A7.2: Contribution of Stand Alone TAs and DCs Towards Achieving CEFPF Outputs (as of 31 December 2008)**

No.	Batch	Project Name	Sector	Country	CEFPF Allocation (In \$'000)	Outputs Performance Targets and Indicators, By 2010				
						ADB's CE <sup>a</sup> investments at least \$1 B, 2008 - 2010 (In \$'000)	3 new RE/EE/CF technologies deployed by DMCs	5 national and local policies enabling CE development in DMCs	At least 3 financing models suitable for bundling small CE investment projects used in DMCs	Knowledge products and capacity building services promoting and enabling CE development provided to DMCs
<b>Total Amounts</b>					8,490	-	-	-	-	-
<b>Total Projects Contributing to Outputs</b>					-	-	9	3	2	12
<b>Stand Alone Technical Assistance Projects (TAs)</b>					<b>Total Amounts</b>	8,000	-	-	-	-
					<b>Total Projects</b>	-	-	5	3	2
1	Mar 31	Support for Clean Power Technology Transfer Phase 1	Energy	IND	2,000		Integrated Gasification Combined Cycle (IGCC) technology for coal	preparation of legislative drafts, amendments and regulatory documents promoting and adopting advanced clean power generation technologies		classification studies of coal types for IGCC; industry-wide technical standards for IGCC and other advanced clean coal technologies; pilot project leading to Plant Design Guidelines and permitting data / guidance for power developers; capacity building for local experts on IGCC; IGCC site identification and feasibility studies
2	Jan 31	Energy Logics Philippines Inc. Wind Farm Development	Energy	PHI	200		first commercial wind power technology in PHI			wind resource assessment
3	Jan 31	Promoting Energy Efficiency in the Pacific	Energy	REG	3,000		EE technologies in teh energy / electricity sector	energy savings for buildings through improved design and construction, technology transfer and appliance / product labeling policy		sustainable Pacific EE system development project; public awareness and education strategy

ADB = Asian Development Bank, CE = clean energy, CEFPF = Clean Energy Financing Partnership Facility, CF = cleaner fuel, DC = direct charge, DMC = developing member country, EE = energy efficiency, EPP = efficiency power plant, IGCC = integrated gasification combined cycle, IND = India, PHI = Philippines, REG = regional, RE = renewable energy, TA = technical assistance.

<sup>a</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency and cleaner fuel.

Source: Asian Development Bank estimates.

Table A7.2—Continued

						Outputs Performance Targets and Indicators, By 2010				
No.	Batch	Project Name	Sector	Country	CEFPF Allocation (In \$'000)	ADB's CE <sup>a</sup> investments at least \$1 B, 2008 - 2010 (In \$'000)	3 new RE/EE/CF technologies deployed by DMCs	5 national and local policies enabling CE development in DMCs	At least 3 financing models suitable for bundling small CE investment projects used in DMCs	Knowledge products and capacity building services promoting and enabling CE development provided to DMCs
<b>Total Amounts</b>					8,490	-	-	-	-	-
<b>Total Projects Contributing to Outputs</b>					-	-	9	3	2	12
<b>Stand Alone Technical Assistance Projects (TAs)</b>					<b>Total Amounts</b>	8,000	-	-	-	-
					<b>Total Projects</b>	-	-	5	3	2
4	Sep 30	Promoting Access to Renewable Energy in the Pacific	Energy	REG	1,200		9 demonstration projects for RE technologies under consideration: SHS, rechargeable lighting with LEDs, wind power, improved cook stoves (ICS), geothermal, wave power, bio-diesel, biogas and hydro		demo projects include securing innovative financial arrangements, financial institutions and beneficiaries	5 detailed project plans and MOU for RE projects; media events and communications targeting HHs, governments and private sector
5	Oct 31	Building the Capacity of Sustainable Energy Authority (SEA)	Energy	SRI	600			energy efficiency labeling for appliances, energy efficiency building codes, tax relief for investors	use of market-based instruments and concessionary financing arrangement	Development of capacity development plan for SEA
6	Jul 31	Mainstreaming of Energy Efficiency Measures for Thai Municipalities	Energy	THA	1,000		building retrofits, upgrading of streetlighting			pilot municipal EE projects (4 municipality); scaling-up plan; capacity-building for PEA and municipalities; innovative project financing

ADB = Asian Development Bank, CE = clean energy, CEFPF = Clean Energy Financing Partnership Facility, CF = cleaner fuel, DMC = developing member country, EE = energy efficiency, HH = household, ICS = improved cook stoves, LED = light emitting diode, MOU = memorandum of understanding, PHI = Philippines, RE = renewable energy, REG = regional, SEA = Sustainable Energy Authority, SHS = solar home systems, SRI = Sri Lanka, TA = technical assistance, THA = Thailand.

<sup>a</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency and cleaner fuel.

Source: Asian Development Bank estimates.

Table A7.2—Continued

No.	Batch	Project Name	Sector	Country	CEFPF Allocation (In \$'000)	Outputs Performance Targets and Indicators, By 2010				
						ADB's CE <sup>a</sup> investments at least \$1 B, 2008 - 2010 (In \$'000)	3 new RE/EE/CF technologies deployed by DMCs	5 national and local policies enabling CE development in DMCs	At least 3 financing models suitable for bundling small CE investment projects used in DMCs	Knowledge products and capacity building services promoting and enabling CE development provided to DMCs
<b>Total Amounts</b>					8,490	-	-	-	-	-
<b>Total Projects Contributing to Outputs</b>					-	-	9	3	2	12
<b>Direct Charges (DC)</b>										
					Total Amounts	490	-	-	-	-
					Total Projects	-	-	4	-	6
7	n/a	Zhangbei Wind Power Project	Energy	PRC	40		wind power generation technology			project analyses: resource sufficiency, technical feasibility, financial viability, risk management, environmental impact, related legal and regulatory issues
8	n/a	Initial ADB Loan Due Diligence Preparatory Work for Solar Thermal Power Plant Projection in Rajasthan	Energy	IND	75		grid-connected solar thermal for electricity generation			pre-feasibility on 50 MW solar thermal power plant in Rajasthan (including environmental and social aspects)
9	n/a	Asia Clean Energy Forum	Energy	REG	50					forum for knowledge sharing and dissemination to facilitate widespread applications of clean energy technologies
10	n/a	Recruitment of Clean Energy Expert	Energy	REG	180					technical support in the application of clean energy technologies and practices in the power sector and other energy end-use sectors

ADB = Asian Development Bank, CE = clean energy, CF = cleaner fuel, DC = direct charge, DMC = developing member country, EE = energy efficiency, IND = India, MW = MegaWatt, PRC = People's Republic of China, REG = regional, RE = renewable energy REG = regional.

<sup>a</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency and cleaner fuel.

Source: Asian Development Bank estimates.

Table A7.2—Continued

						Outputs Performance Targets and Indicators, By 2010				
No.	Batch	Project Name	Sector	Country	CEFPF Allocation (In \$'000)	ADB's CE <sup>a</sup> investments at least \$1 B, 2008 - 2010 (In \$'000)	3 new RE/EE/CF technologies deployed by DMCs	5 national and local policies enabling CE development in DMCs	At least 3 financing models suitable for bundling small CE investment projects used in DMCs	Knowledge products and capacity building services promoting and enabling CE development provided to DMCs
<b>Direct Charges (DC)</b>			Total Amounts		490	-	-	-	-	-
			Total Projects		-	-	4	-	-	6
11	n/a	Transport and Climate Change, the missing link: how should transport address its emissions and energy use	Transport	REG	70		energy efficiency technologies and practices applicable to transport systems			series of think pieces exploring the key issues on climate change and the transport sector, such as: (i) CO <sub>2</sub> measurement, (ii) co-benefits of CO <sub>2</sub> emissions reductions, (iii) low-carbon policies, (iv) innovative financing, (v) scaling-up mechanisms, (vi) institutional options
12	n/a	Preparation of Renewable Energy for Remote Island and Mountain Communes	Energy	VIE	75		wind diesel - solar hybrids; micro hydro			wind assessment; planning framework for selecting wind diesel hybrid power systems for other island district/communes; pre-feasibility study of Ly Son Island; review of 5 other off-shore island pre-feasibility studies
<b>Total Amounts</b>					8,490	-	-	-	-	-
<b>Total Projects Contributing to Outputs</b>					-	-	9	3	2	12

ADB = Asian Development Bank, CE = clean energy, CF = cleaner fuel, CO<sub>2</sub> = carbon dioxide, DC = direct charge, DMC = developing member country, DSM = demand side management, EE = energy efficiency, RE = renewable energy, REG = regional, VIE = Viet Nam.

<sup>a</sup> CE initiatives in ADB include initiatives in renewable energy, energy efficiency and cleaner fuel.

Source: Asian Development Bank.

**Table A8.1: Energy Savings and Emissions Reductions for GCIs (as of 31 December 2008)**

No.	Batch	Project Name	Sector	Country	CEFPF Allocation (In \$'000)	Energy savings (MWh)	Demand reduction (MW)	CO <sub>2</sub> emission reduction (tCO <sub>2</sub> /yr)	<Optional> Other emissions avoided (tons/yr)
<b>TOTAL</b>					10,100	1,077,012	559	2,387,872	-
1	Feb 29	Public-Private Infrastructure Development Facility	Multisector	BAN	2,000	-	-	15,000	-
2	May 31	Green Power Development Project -- Sustainable Solar Technology Application for Rural Electrification	Energy	BHU	1,000	-	-	206,275	-
3	Jan 31	Energy Efficiency Improvements in the Railway Sector	Transport	PRC	800	Fuel savings equivalent to 4.9 million TOE for 20 years	-	1,385,000	-
4	Oct 31	Guangdong Energy Efficiency Improvement Investment Program	Energy	PRC	800	532,767	107	415,560	TSP: 1,785 SO <sub>2</sub> : 4,795 NO <sub>x</sub> : 1,066

BAN = Bangladesh, BHU = Bhutan, CE = clean energy, CEFPF = Clean Energy Financing Partnership Facility, GCI = grant component of investment, PO = people's organization, PRC = Peoples Republic of China, MW = Megawatt, MWh = megawatt-hour, NO<sub>x</sub> = nitrogen oxides, SO<sub>2</sub> = sulphur dioxide, tCO<sub>2</sub> = tons of carbon dioxide, TOE = tons of oil equivalent, TSP = total suspended particulate.

Source: Asian Development Bank estimates.

Table A8.1—Continued

No.	Batch	Project Name	Sector	Country	CEFPP Allocation (In \$'000)	Energy savings (MWh)	Demand reduction (MW)	CO <sub>2</sub> emission reduction (tCO <sub>2</sub> /yr)	<Optional> Other emissions avoided (tons/yr)
5	Feb 29	Nagpur Water Supply (incl. Energy Efficiency Improvement)	Water	IND	2,000	45	-	37	-
6	Feb 29	Energy Efficiency Project	Energy	PHI	1,500	534,000	450	300,000	-
7	Mar 31	Demand Side Management (DSM) for Municipal Streetlighting	Energy	SRI	2,000	10,200	2	66,000	n/a
<b>TOTAL</b>					10,100	1,077,012	559	2,387,872	-

IND = India, PHI = Philippines, MW = Megawatt, MWh = megawatt-hour, NO<sub>x</sub> = nitrogen oxides, SO<sub>2</sub> = sulphur dioxide, SRI = Sri Lanka, tCO<sub>2</sub> = tons of carbon dioxide, TOE = tons of oil equivalent, TSP = total suspended particulate.

Source: Asian Development Bank estimates.

## UNAUDITED STATUS OF GRANTS FOR CLEAN ENERGY FUND AND ASIA CLEAN ENERGY FUND

ASIAN DEVELOPMENT BANK  
ADMINISTRATOR FOR  
TECHNICAL ASSISTANCE GRANT FUND

CLEAN ENERGY FUND  
STATUS OF GRANT (Unaudited)  
31 December 2008  
(Amounts in US dollar)

TOTAL CONTRIBUTION COMMITTED			20,605,630.26
Gain (loss) arising from change in value of currency			<u>(1,663.13)</u>
Amount received:			
Government of Australia (AUD7,000,000) <sup>bi</sup>	6,455,400.00		
Government of Norway (NOK20,000,000)	3,227,538.12		
Government of Spain (USD5,000,000)	5,000,000.00		
Government of Sweden (SEK11,000,000)	<u>1,404,480.04</u>	16,087,418.16 <sup>ai</sup>	
Receivable from:			
Government of Norway (NOK10,000,000)	1,426,055.46		
Government of Sweden (SEK24,000,000)	<u>3,090,493.51</u>	<u>4,516,548.97</u> <sup>ci</sup>	
NET CONTRIBUTION AVAILABLE			20,603,967.13
Add: Interest income	44,142.98		
Income from investments	87,164.94		
Gain/(Loss) on foreign exchange transactions	<u>0.19</u>		<u>131,308.11</u>
TOTAL AMOUNT AVAILABLE			20,735,275.24
Less: Amounts utilized for			
Project Expenditures	(145,881.25)		
ADB Administration Cost	(7,294.06)		
Supplies	(592.52)		
Business Travel	(8,129.00)		
Consultants	(84,725.50)		
Printing Services	(70.79)		
Financial expense - bank charges	<u>(51.00)</u>		<u>(246,744.12)</u>
UNUTILIZED BALANCE			20,488,531.12 <sup>di</sup>
Less: Outstanding commitments	(3,050,600.94) <sup>ei</sup>		
Reserve for ADB administration cost	<u>(132,705.94)</u> <sup>fi</sup>		<u>(3,183,306.88)</u>
UNCOMMITTED BALANCE			17,305,224.24
Less: TA/Grant Approved But Not Yet Effective			
7194/THA: Mainstreaming Energy Efficiency Measures	(1,000,000.00)		
0109/PRC: Capacity Building for Energy Efficiency	(800,000.00)		
Reserve for ADB administration cost	<u>(66,000.00)</u> <sup>fi</sup>		<u>(1,866,000.00)</u>
UNCOMMITTED BALANCE AVAILABLE FOR NEW COMMITMENTS			<u><u>15,439,224.24</u></u>

<sup>ai</sup> Represents the sum of utilized and unutilized contributions expressed in US\$ equivalents.

<sup>bi</sup> Represents initial contribution with the intent to contribute a total of AUD32 million by 2011.

<sup>ci</sup> Undrawn contributions in local currency are translated at the applicable rate of exchange as of 31 December 2008.

<sup>di</sup> Represented by:

Cash in bank			1,589,322.45
Investment			14,240,512.02
Accrued interest			1,873.18
Advances under TA Grants			200,000.00
Undrawn contribution			4,516,548.97
Less: Interfund payable			<u>(59,725.50)</u>
			<u><u>20,488,531.12</u></u>

<sup>ei</sup> Includes approved applications under direct charges.

<sup>fi</sup> Represents 5% and 2% of TA and Grant outstanding commitments/approved not yet effective.

ASIAN DEVELOPMENT BANK  
Statement of TA/Grant Expenditures and Direct Charges (Unaudited)  
Clean Energy Fund  
As of 31 December 2008  
(Expressed in US dollars)

TA/Grant Title Approved Application	TA/Grant/ Application No./Type	Date of Approval	TA/Grant/ Direct Charge Amount <sup>17</sup> (A)	Amount Received (B)	Project/Direct Charge Expenditures <sup>20</sup>			Outstanding Commitments (F) = (A) - (E)	Expected TA/Grant Completion Date (G)	Completed TAs	
					Cumulative up to 31/12/07 (C)	Transactions 01/01-31/12/08 (D)	Cumulative up to 31/12/08 (E) = (C) + (D)			Unutilized Commitment (Savings) (H) = (A) - (E)	Financial Completion Date (I)
<b>TA/Grants</b>											
<b>China, People's Republic of</b>											
Railway Sector Energy Efficiency Strategy	7171/AO	18-Nov-08	<u>800,000.00</u>					<u>800,000.00</u>	31-Dec-09		
<b>Philippines</b>											
SSTA for Pasuquin East Wind Farm Development Project	7097/PP	11-Jun-08	<u>200,000.00</u>					<u>200,000.00</u>	31-Jul-09		
<b>Sri Lanka</b>											
Building the Capacity of the Sustainable Energy Authority	7011/AO	12-Dec-07	<u>600,000.00</u>				145,881.25	145,881.25	<u>454,118.75</u>	31-Mar-10	
<b>Regional</b>											
Promoting Energy Efficiency in the Pacific	6485/RG	12-Sep-08	<u>1,200,000.00</u>						<u>1,200,000.00</u>	31-Dec-09	
	<b>Sub Total</b>		<u>2,800,000.00</u>			<u>-</u>	<u>145,881.25</u>	<u>145,881.25</u>	<u>2,654,118.75</u>		
<b>Direct Charges (Approved Applications)</b>											
Asia Clean Energy Forum 2008	CEFPDC 00001	2-Apr-08	50,000.00				8,792.31	8,792.31	41,207.69		
Transport and Climate Change "The Missing Link: How Should Transport Address Its Emissions and Energy Use"	CEFPDC 00002	25-Aug-08	70,000.00				15,000.00	15,000.00	55,000.00		
Preparation of Renewable Energy for Remote Island and Mountain Communes	CEFPDC 00003	29-May-08	75,000.00				48,231.20	48,231.20	26,768.80		
Initial ADB Loan Due Diligence Preparatory Work for Solar Thermal Power Plant Project in Rajasthan	CEFPDC 00004	5-Jun-08	75,000.00				-	-	75,000.00		
Recruitment of Clean Energy Expert (National Consultant in Lao)	CEFPDC 00005	25-Aug-08	180,000.00				21,494.30	21,494.30	158,505.70		
PRC: Zhangbei Wind Power Project	CEFPDC 00006	25-Aug-08	40,000.00				-	-	40,000.00		
	<b>Sub Total</b>		<u>490,000.00</u>			<u>-</u>	<u>93,517.81</u>	<u>93,517.81</u>	<u>396,482.19</u>		
	<b>TOTAL</b>		<u>3,290,000.00</u>			<u>-</u>	<u>239,399.06</u>	<u>239,399.06</u>	<u>3,050,600.94</u>		

**Add: TA/Grant approved but not yet effective**

**Thailand**

Mainstreaming Energy Efficiency Measures in Thai Municipalities	7194/AO	08Dec08	1,000,000.00
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**China, People's Republic of**

Guangdong Energy Efficiency and Environment Improvement Investment Program	0109	04Jun08	<u>800,000.00</u>
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<b>Sub Total</b>			<u>1,800,000.00</u>
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			<u><u>5,090,000.00</u></u>
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**Contributions received:**

Government of Australia	AUD7,000,000	6,455,400.00
Government of Norway	NOK20,000,000	3,227,538.12
Government of Spain	USD5,000,000	5,000,000.00
Government of Sweden	SEK11,000,000	<u>1,404,480.04</u>
		<u>16,087,418.16</u> <sup>3/</sup>

ASIAN DEVELOPMENT BANK  
ADMINISTRATOR FOR  
TECHNICAL ASSISTANCE GRANT FUND  
ASIAN CLEAN ENERGY FUND (ACEF)

STATUS OF GRANT (CONTRIBUTION)  
(Unaudited)  
as of 31 December 2008  
(Amounts in US dollar)

TOTAL CONTRIBUTION COMMITTED (JPY2,320,000,000)		21,660,986.88 <sup>a/</sup>
Net gain arising from change in value of currency		<u>1,389,186.53</u>
NET CONTRIBUTION AVAILABLE		23,050,173.41
Add: Income from investment-Time Deposits	327,926.44	
Income from investment-Corporate Bonds	116,760.68	
Interest income	17,702.03	
Gain on foreign exchange transactions	<u>46,061.28</u>	<u>508,450.43</u>
TOTAL AMOUNT AVAILABLE		23,558,623.84
Less: Amounts utilized for		
Financial expense - bank charges		<u>(45.50)</u>
UNUTILIZED BALANCE		<u><u>23,558,578.34</u></u> <sup>b/</sup>
Less: Grant Approved But Not Yet Effective		
0141/BHU: Green Power Development Project	(1,000,000.00)	
Reserve for ADB administration cost	<u>(20,000.00)</u> <sup>c/</sup>	<u>(1,020,000.00)</u>
UNUTILIZED BALANCE AVAILABLE FOR NEW COMMITMENTS		<u><u>22,538,578.34</u></u>

<sup>a/</sup> Represents the sum of utilized and unutilized contributions expressed in US\$ equivalents.

<sup>b/</sup> Represented by:

Cash		1,614,242.02
Investment in Time Deposits		10,960,204.42
Investment in Corporate Bonds		10,981,955.09
Accrued interest		2,176.82
Accounts payable		<u>(0.01)</u>
		<u><u>23,558,578.34</u></u>

<sup>c/</sup> Represents 2% of Grant approved not yet effective.

ASIAN DEVELOPMENT BANK  
Statement of TA Expenditures (Unaudited)  
Asian Clean Energy Fund  
As of 31 December 2008  
*(Expressed in US dollars)*

TA Title	TA No./Type	Date of Approval	TA Amount <sup>1/</sup>	Amount Received	Project Expenditures <sup>2/</sup>		Outstanding Commitments	Expected TA Completion Date	Completed TAs		
					Cumulative up to 31/12/07	Transactions 01/08-31/12/08			Cumulative up to 31/12/08	Unutilized Commitment (Savings)	Financial Completion Date
			(A)	(B)	(C)	(D)	(E) = (C) + (D)	(F) = (A) - (E)	(G)	(H) = (A) - (E)	(I)
<b>Grant approved but not yet effective</b>											
<b>Bhutan</b>											
Green Power Development Project	0141	26Dec08	<u>1,000,000.00</u>								
	<b>Contributions received:</b>										
	Government of Japan		JPY2,320,000,000	<u>23,050,173.41</u> <sup>3/</sup>							

<sup>1/</sup> US\$ equivalent of TA Grant at time of TA approval.

<sup>2/</sup> Actual disbursements.

<sup>3/</sup> Represents actual US\$ equivalent of contributions received.

## CEFPF PORTFOLIO PROFILE: RESOURCE UTILIZATION, REGIONAL DISTRIBUTION, AND SOVEREIGN VS. NON-SOVEREIGN

**Table A10.1: CEFPF Portfolio Profile: Resource Utilization (as of 31 December 2008)**

No.	Batch	Project Name	Sector	Operations Dept	Country	Amounts in \$'000							
						ADB Portfolio		CEFPF Allocation	Use of CEFPF Funds			CEFPF Fund Source	
						Loan	TA		GCI	TA	DC	CEF	ACEF
<b>GRAND TOTAL</b>						751,100	-	18,590	10,100	8,000	490	8,090	10,500
						751,100		100%	54%	46%		44%	56%
<b>I. Allocations to projects approved by ADB for implementation</b>													
1	May 31	Green Power Development	Energy	SARD	BHU	80,000	-	1,000	1,000	-	-	-	1,000
2	Jan 31	Energy Efficiency Improvements in the Railway Sector	Transport	EARD	PRC	300,000	-	800	800	-	-	800	-
3	Oct 31	Guangdong Energy Efficiency Improvement Investment Program	Energy	EARD	PRC	100,000	-	800	800	-	-	800	-
4	n/a	Zhangbei Wind Power Project	Energy	EARD	PRC	-	-	40	-	-	40	40	-
5	n/a	Initial ADB Loan Due Diligence Preparatory Work for Solar Thermal Power Plant Projection in Rajasthan	Energy	SARD	IND	-	-	75	-	-	75	75	-
6	Jan 31	Energy Logics Philippines Inc. Wind Farm Development	Energy	PSOD	PHI	-	-	200	-	200	-	200	-
7	n/a	Asia Clean Energy Forum	Energy	RSDD	REG	-	-	50	-	-	50	50	-
8	Jan 31	Promoting Energy Efficiency in the Pacific	Energy	PARD	REG	-	-	1,200	-	1,200	-	1,200	-
9	n/a	Recruitment of Clean Energy Expert	Energy	RSDD	REG	-	-	180	-	-	180	180	-
10	n/a	Transport and Climate Change, the missing link: how should transport address its emissions and energy use	Transport	RSDD	REG	-	-	70	-	-	70	70	-
11	Oct 31	Building the Capacity of Sustainable Energy Authority (SEA)	Energy	SARD	SRI	-	-	600	-	600	-	600	-
12	Jul 31	Mainstreaming Energy Efficiency Measures for Thai Municipalities	Energy	SERD	THA	-	-	1,000	-	1,000	-	1,000	-
13	n/a	Preparation of Renewable Energy for Remote Island and Mountain Communes	Energy	SERD	VIE	-	-	75	-	-	75	75	-
<b>Subtotal</b>						480,000	-	6,090	2,600	3,000	490	5,090	1,000
						480,000		100%	43%	57%		84%	16%

ACEF = Asia Clean Energy Fund, ADB = Asian Development Bank, BHU = Bhutan, CEF = Clean Energy Fund, CEFPF = Clean Energy Financing Partnership Facility, DC = Direct Charges, EARD = East Asia Regional Department, GCI = grant component of investment, IND = India, PARD = Pacific Regional Department, PHI = Philippines, PRC = People's Republic of China, PSOD = Private Sector Operations Department, REG = Regional, RSDD = Regional Sustainable and Development Department, SARD = South Asia Regional Department, SERD = Southeast Asia Regional Department, SRI = Sri Lanka, TA = Technical Assistance, THA = Thailand, VIE = Viet Nam.

Source: Asian Development Bank estimates.

Table A10.1—Continued

No.	Batch	Project Name	Sector	Operations Dept	Country	Amounts in \$'000							
						ADB Portfolio		CEFPF Allocation	Use of CEFPF Funds			CEFPF Fund Source	
						Loan	TA		GCI	TA	DC	CEF	ACEF
<b>II. Allocations to projects awaiting approval by ADB for implementation</b>													
14	Mar 31	Support for Clean Power Technology Transfer Phase 1	Energy	SARD	IND	-	-	2,000	-	2,000	-	-	2,000
15	Feb 29	Energy Efficiency Project	Energy	SERD	PHI	31,100	-	1,500	1,500	-	-	-	1,500
16	Sep 30	Promoting Access to Renewable Energy in the Pacific	Energy	PARD	REG	-	-	3,000	-	3,000	-	3,000	-
<b>Subtotal</b>						31,100	-	6,500	1,500	5,000	-	3,000	3,500
								100%	23%	77%		46%	54%
<b>III. Allocations to projects from the Asia Clean Energy Fund (ACEF) awaiting GOJ concurrence</b>													
17	Feb 29	Public-Private Infrastructure Development Facility	Multisector	SARD	BAN	165,000	-	2,000	2,000	-	-	-	2,000
18	Feb 29	Nagpur Water Supply (incl. Energy Efficiency Improvement)	Water	SARD	IND	35,000	-	2,000	2,000	-	-	-	2,000
19	Mar 31	Demand Side Management (DSM) for Municipal Streetlighting	Energy	SARD	SRI	40,000	-	2,000	2,000	-	-	-	2,000
<b>Subtotal</b>						240,000	-	6,000	6,000	-	-	-	6,000
						240,000		100%	100%	0%		0%	100%
<b>GRAND TOTAL</b>						751,100	-	18,590	10,100	8,000	490	8,090	10,500
						751,100		100%	54%	46%		44%	56%

ACEF = Asia Clean Energy Fund, ADB = Asian Development Bank, CEF = Clean Energy Fund, CEFPF = Clean Energy Financing Partnership Facility, DC = Direct Charges, GCI = grant component of investment, GOJ = Government of Japan, IND = India, PARD = Pacific Regional Department, PHI = Philippines, REG = Regional, SARD = South Asia Regional Department, SERD = Southeast Asia Regional Department, SRI = Sri Lanka, TA = Technical Assistance.

Source: Asian Development Bank estimates.

**Table A10.2: CEFPF Portfolio Profile: Regional Distribution of Projects (as of 31 December 2008)**

Project Name	Sector	Operations Dept	Country	Amounts in \$'000							
				ADB Portfolio		CEFPF Allocation	Use of CEFPF Funds			CEFPF Fund Source	
				Loan	TA		GCI	TA	DC	CEF	ACEF
<b>GRAND TOTAL</b>				751,100	-	18,590	10,100	8,000	490	8,090	10,500
				751,100		100%	54%	46%		44%	56%
<b>Central and West Asia</b>				-	-	-	-	-	-	-	-
				-		-	-	-		-	-
<b>East Asia</b>				400,000	-	1,640	1,600	-	40	1,640	-
				400,000		9%	98%	2%		100%	0%
Guangdong Energy Efficiency Improvement Investment Program	Energy	EARD	PRC	100,000	-	800	800	-	-	800	-
Energy Efficiency Improvements in the Railway Sector	Transport	EARD	PRC	300,000	-	800	800	-	-	800	-
Zhanbei Wind Power Project	Energy	EARD	PRC	-	-	40	-	-	40	40	-
<b>Pacific</b>				-	-	4,200	-	4,200	-	4,200	-
				-		23%	0%	100%		100%	0%
Promoting Access to Renewable Energy in the Pacific	Energy	PARD	REG	-	-	3,000	-	3,000	-	3,000	-
Promoting Energy Efficiency in the Pacific	Energy	PARD	REG	-	-	1,200	-	1,200	-	1,200	-
<b>South Asia</b>				320,000	-	9,675	7,000	2,600	75	675	9,000
				320,000		52%	72%	28%		7%	93%
Public-Private Infrastructure Development Facility	Multisector	SARD	BAN	165,000	-	2,000	2,000	-	-	-	2,000
Green Power Development Project -- Sustainable Solar Technology Application for Rural Electrification	Energy	SARD	BHU	80,000	-	1,000	1,000	-	-	-	1,000
Initial ADB Loan Due Diligence Preparatory Work for Solar Thermal Power Plant Projection in Rajasthan	Energy	SARD	IND	-	-	75	-	-	75	75	-

ACEF = Asia Clean Energy Fund, ADB = Asian Development Bank, BHU = Bhutan, CEF = Clean Energy Fund, CEFPF = Clean Energy Financing Partnership Facility, DC = Direct Charges, EARD = East Asia Regional Department, GCI = grant component of investment, IND = India, PARD = Pacific Regional Department, PRC = People's Republic of China, REG = Regional, SARD = South Asia Regional Department, TA = Technical Assistance.

Source: Asian Development Bank estimates.

Table A10.2—Continued

Project Name	Sector	Operations Dept	Country	Amounts in \$'000							
				ADB Portfolio		CEFPF Allocation	Use of CEFPF Funds			CEFPF Fund Source	
				Loan	TA		GCI	TA	DC	CEF	ACEF
Nagpur Water Supply (incl. Energy Efficiency Improvement)	Water	SARD	IND	35,000	-	2,000	2,000	-	-	-	2,000
Support for Clean Power Technology Transfer Phase 1	Energy	SARD	IND	-	-	2,000	-	2,000	-	-	2,000
Building the Capacity of Sustainable Energy Authority (SEA)	Energy	SARD	SRI	-	-	600	-	600	-	600	-
Demand Side Management (DSM) for Municipal Streetlighting	Energy	SARD	SRI	40,000	-	2,000	2,000	-	-	-	2,000
<b>Southeast Asia</b>				31,100	-	2,775	1,500	1,200	75	1,275	1,500
				31,100		15%	54%	46%		46%	54%
Energy Efficiency Project	Energy	SERD	PHI	31,100	-	1,500	1,500	-	-	-	1,500
Energy Logics Philippines Inc. Wind Farm Development	Energy	PSOD	PHI	-	-	200	-	200	-	200	-
Preparation of Renewable Energy for Remote Island and Mountain Communes	Energy	SERD	VIE	-	-	75	-	-	75	75	-
Mainstreaming Energy Efficiency Measures for Thai Municipalities	Energy	SERD	THA	-	-	1,000	-	1,000	-	1,000	-
<b>Regional</b>				-	-	300	-	-	300	300	-
				-		2%	0%	100%		100%	0%
Asia Clean Energy Forum	Energy	RSDD	REG	-	-	50	-	-	50	50	-
Recruitment of Clean Energy Expert	Energy	RSDD	REG	-	-	180	-	-	180	180	-
Transport and Climate Change, the missing link: how should transport address its emissions and energy use	Energy	RSDD	REG	-	-	70	-	-	70	70	-
<b>GRAND TOTAL</b>				751,100	-	18,590	10,100	8,000	490	8,090	10,500
				751,100		100%	54%	46%		44%	56%

ADB = Asian Development Bank, ACEF = Asia Clean Energy Fund, ADB = Asian Development Bank, CEF = Clean Energy Fund, CEFPF = Clean Energy Financing Partnership Facility, DC = Direct Charges, GCI = grant component of investment, IND = India, PHI = Philippines, PSOD = Private Sector Operations Department, REG = Regional, RSDD = Regional Sustainable and Development Department, SARD = South Asia Regional Department, SERD = Southeast Asia Regional Department, SRI = Sri Lanka, TA = Technical Assistance, THA = Thailand, VIE = Viet Nam.

Source: Asian Development Bank estimates.

**Table A10.3: Sovereign vs. Non-Sovereign** (as of 31 December 2008)

No.	Batch	Project Name	Sector	Operations Dept	Country	Amounts in \$'000		
						CEFPF Allocation	Sovereign	Non-Sovereign
<b>GRAND TOTAL</b>						18,590	16,390	2,200
						100%	88%	12%
<b>I. Allocations to projects approved by ADB for implementation</b>								
1	May 31	Green Power Development Project - Sustainable Solar Technology Application for Rural Electrification	Energy	SARD	BHU	1,000	1,000	-
2	Jan 31	Energy Efficiency Improvements in the Railway Sector	Transport	EARD	PRC	800	800	-
3	Oct 31	Guangdong Energy Efficiency Improvement Investment Program	Energy	EARD	PRC	800	800	-
4	n/a	Zhangbei Wind Power Project	Energy	EARD	PRC	40	40	-
5	n/a	Initial ADB Loan Due Diligence Preparatory Work for Solar Thermal Power Plant Projection in Rajasthan	Energy	SARD	IND	75	75	-
6	Jan 31	Energy Logics Philippines Inc. Wind Farm Development	Energy	PSOD	PHI	200	-	200.00
7	n/a	Asia Clean Energy Forum	Energy	RSDD	REG	50	50	-
8	Jan 31	Promoting Energy Efficiency in the Pacific	Energy	PARD	REG	1,200	1,200	-
9	n/a	Recruitment of Clean Energy Expert	Energy	RSDD	REG	180	180	-

ADB = Asian Development Bank, BHU = Bhutan, EARD = East Asia Regional Department, IND = India, PARD = Pacific Regional Department, PHI = Philippines, PRC = People's Republic of China, PSOD = Private Sector Operations Department, REG = Regional, RSDD = Regional Sustainable and Development Department, SARD = South Asia Regional Department.

Source: Asian Development Bank estimates.

Table A10.3—Continued

No.	Batch	Project Name	Sector	Operations Dept	Country	Amounts in \$'000		
						CEFPF Allocation	Sovereign	Non-Sovereign
<b>GRAND TOTAL</b>						18,590	16,390	2,200
						100%	88%	12%
<b>I. Allocations to projects approved by ADB for implementation</b>								
10	n/a	Transport and Climate Change, the missing link: how should transport address its emissions and energy use	Transport	RSDD	REG	70	70	-
11	Oct 31	Building the Capacity of Sustainable Energy Authority (SEA)	Energy	SARD	SRI	600	600	-
12	Jul 31	Mainstreaming Energy Efficiency Measures for Thai Municipalities	Energy	SERD	THA	1,000	1,000	-
13	n/a	Preparation of Renewable Energy for Remote Island and Mountain Communes	Energy	SERD	VIE	75	75	-
<b>Subtotal</b>						6,090	5,890	200
						100%	97%	3%

ADB = Asian Development Bank , CEFPF = Clean Energy Financing Partnership Facility, REG = Regional, RSDD = Regional Sustainable and Development Department, SARD = South Asia Regional Department, SERD = Southeast Asia Regional Department, SRI = Sri Lanka, THA = Thailand, VIE = Viet Nam.

Source: Asian Development Bank estimates.

Table A10.3—Continued

No.	Batch	Project Name	Sector	Operations Dept	Country	Amounts in \$'000		
						CEFPF Allocation	Sovereign	Non-Sovereign
<b>GRAND TOTAL</b>						18,590	16,390	2,200
						100%	88%	12%
<b>II. Allocations to projects awaiting approval by ADB for implementation</b>								
14	Mar 31	Support for Clean Power Technology Transfer Phase 1	Energy	SARD	IND	2,000.00	2,000.00	-
15	Feb 29	Energy Efficiency Project	Energy	SERD	PHI	1,500.00	1,500.00	-
16	Sep 30	Promoting Access to Renewable Energy in the Pacific	Energy	PARD	REG	3,000.00	3,000.00	-
<b>Subtotal</b>						6,500	6,500	-
						100%	100%	0%
<b>III. Allocations to projects from the Asia Clean Energy Fund (ACEF) awaiting GOJ concurrence</b>								
17	Feb 29	Public-Private Infrastructure Development Facility	Multisector	SARD	BAN	2,000	2,000	-
18	Feb 29	Nagpur Water Supply (incl. Energy Efficiency Improvement)	Water	SARD	IND	2,000	-	2,000
19	Mar 31	Demand Side Management (DSM) for Municipal Streetlighting	Energy	SARD	SRI	2,000	2,000	-
<b>Subtotal</b>						6,000	4,000	2,000
						100%	67%	33%
<b>GRAND TOTAL</b>						18,590	16,390	2,200
						100%	88%	12%

ADB = Asian Development Bank, CEFPF = Clean Energy Financing Partnership Facility, GOJ = Government of Japan, IND = India, PARD = Pacific Regional Department, PHI = Philippines, REG = Regional, SARD = South Asia Regional Department, SERD = Southeast Asia Regional Department, SRI = Sri Lanka.

Source: Asian Development Bank estimates.