

**Asian Development Bank (ADB)**  
**Clean Energy Financing Partnership Facility (CEFPF)**  
**Introduction to Design and Monitoring Framework (DMF)**

1. The Clean Energy Financing Partnership Facility (CEFPF) as encapsulated in its Design and Monitoring Framework (DMF) was developed to bolster the Asian Development Bank's response to the dual issues of Energy Security and Climate Change confronting its Developing Member Countries (DMCs) today. As in all operations of the bank, 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:

- a. The unprecedented economic and population growth in the Asia-Pacific region consequently leads to rapid increases in the region's energy demand with unsustainable implications on the environment.
- b. 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.
- c. To address energy security, recent studies<sup>1</sup> suggest: (i) aggressively pursuing energy efficiency to reduce energy consumption; (ii) diversifying the energy portfolio; (iii) managing market volatility; (iv) managing reserve stock, and (v) developing macroeconomic policy frameworks including comprehensive plans to mitigate energy supply risks.
- d. Studies<sup>2</sup> show that MDG targets cannot be met without modern energy services, thus, access to energy is a critical element to reducing poverty.
- e. 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.
- f. The preferred option for the poor is to replace the coal and kerosene more commonly used with LPG, natural gas and electricity, as well as to use modern cooking stoves efficiently fueled by various biomass.
- g. The Asia-Pacific region expects profound impacts from rapid climate change, especially affecting its poorest population, and hindering long-term efforts to create a more healthy, prosperous and sustainable region.
- h. To significantly reduce and stabilize GHG concentration levels in the atmosphere, the international community is advocating for: (i) transforming the way energy is used; (ii) promoting research and development; (iii) financing the transition to cleaner energy; (iv) managing the impact of climate change, and (v) tracking illegal logging.
- i. Recent studies<sup>3</sup> show that that CO<sub>2</sub> 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.

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<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.

- j. While research continues, carbon emission reducing technologies are already available and must be transferred to developing countries.
- k. 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 the bank to effectively address Energy Security and Climate Change concerns through specific strategies and programs, including the CEFPP. It is important to note that, at the time of the development of its Draft Energy Strategy, ADB was mandated by its poverty reduction strategy and Medium Term Strategy II (MTS II) which identifies energy as a core operational sector in driving its poverty reduction agenda. Specifically, the MTS II directed ADB to focus on low carbon technologies, energy efficiency and renewable energy (RE) development. MTS II also directed ADB to address governance issues, a key component of energy sector development, and to meet MDG goals, requiring a focus on energy access. Currently, ADB is mandated by its Long Term Strategic Framework (LTSF), directing ADB to focus support on three distinct but complementary development agendas of the region: inclusive economic growth, environmentally sustainable growth, and regional integration. 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's Climate Change Program, in particular, is divided into mitigation and adaptation interventions. 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 and draft strategy. ADB's energy policy was approved in 1995. ADB is developing a new energy strategy within the framework of the energy policy. The energy strategy will focus on addressing the challenges faced by the sector – meeting energy security and transition to a low carbon economy toward and achieving ADB's overarching poverty reduction objective. Specifically, ADB aims to base its energy strategy on three main pillars: (i) promoting energy efficiency and renewable energy; (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 pursue new and renewable energy (RE) sources, diversifying the source of supply for incremental energy demand. ADB has likewise identified RE as a clear option for off-

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<sup>4</sup> ADB. 2007. DRAFT Energy Strategy. Manila.

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. AT the moment 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 stand alone systems. In the interim, ADB will support the development of cleaner technologies utilizing fossil fuels to ensure access to energy and overall energy security. The main challenge hindering RE development and clean technologies with respect to coal, is its high cost.

7. ADB devised the 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. The 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 break down 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. The CEFPP embodies ADB's commitment to be the Asia-Pacific region's catalyst for mobilizing greater financial flows and technology transfer to assist DMCs to achieve such leaps.

8. The 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 EE and RE projects with additional revenue from the Clean Development Mechanism (CDM). 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, the 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 1. CEFPF's Design and Monitoring Framework (DMF)**

Design Summary	Performance Targets/Indicators	Data Sources/ Reporting Mechanisms	Assumptions (A) and Risks (R)
<p><b>Impact</b></p> <p>Improved energy security in DMCs and decreased rate of climate change.</p>	<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>International Energy Agency (IEA)</p> <p>Appropriate ministries in DMCs</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>
<p><b>Outcome</b></p> <p>Increased use of clean energy</p>	<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>International Energy Agency (IEA)</p> <p>Appropriate ministries in DMCs</p>	<p>A: At least one RE/EE technology is accessible and affordable for each DMC</p>

CEFPF DMF 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 \$1 billion by 2010 and maintained in succeeding years	Project Processing Information System (PPIS)	A: Project approvals vs. 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	Various ADB project documents (e.g. TA Report, RRP, etc.)	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	Various ADB project documents (e.g. TA Report, RRP, etc.); 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	Various ADB project documents (e.g. TA Report, RRP, etc.); Appropriate ministries in DMCs involved in the project; LFIs	
	Knowledge/information-education-communication products and capacity-building services promoting and enabling CE development provided to DMCs by 2010	Various ADB project documents (e.g. TA Report, RRP, etc.)	A: Knowledge products and capacity services are effectively targeting policy and decision makers

CEFPF DMF continued...

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**Activities and Milestones (for years 2008 to 2010)**

- 1.1 Pool grants from multilateral and bilateral sources
  - Promote CEFPPF to the multilateral and bilateral donor community
  - Build and maintain network of financial partners
  - Secure \$250 million equivalent in combined multidonor and single donor funds
  - Maintain relations with financing partners through the submission of Annual Work Programs Annual Reports, Mid-term Reports, as well as Annual Consultation Meetings
- 1.2 Explore and develop innovative investment programs and financing mechanisms
  - Engage expert services to develop innovative investment programs and financing mechanisms
  - Develop new and innovative investment programs and financing mechanisms
  - Implement investment programs and financing mechanisms in priority DMCs
  - Monitor and evaluate results of programs and financing mechanisms
  - Use lessons to innovate for more effective investment programs and financing mechanisms
- 1.3 Finance proven investments in smaller energy efficiency projects
- 1.4 Finance investments that increase the percentage of people with access to CE in rural and urban areas
- 2.1 Finance technology transfer costs of pre-commercial (i.e., proven and ready for deployment) CE technology catalyzing mainstream adoption
- 3.1 Finance technical and capacity building programs for CE in DMCs
  - Develop CEFPPF Implementation Guidelines, and update as necessary
  - Initiate call for proposals/applications to the CEFPPF six (6) times a year
  - Review and prioritize proposals per the CEFPPF Implementation Guidelines
  - Allocate available resources to finance 1.3, 1.4, 2.1 and 3.1
  - Monitor and evaluate results of financed proposals

**Inputs (for years 2008 - 2010)**

- \$250 million for CEFPPF to facilitate investments
- 12 PMs of ADB Professional Staff
- 48 PMs of domestic consultants
- 60 PMs of international consultants
- annual Clean Energy Forum
- 2 to 3 technical studies
- 4 to 5 workshops

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} Activities for 1.3, 1.4, 2.1, and  
3.1  
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### 3.2 Coordinate CE knowledge provision and exchange

- Disseminate lessons learned in project report documents and publications
- Produce technical studies that enable the increased use of CE in DMCs (given available resources)
- Network with other institutions to maximize information dissemination and acquisition on best practices, model templates and procedures, advocacy and the like
- Co-sponsor annual Clean Energy Forum
- Engage and deploy expert services to operations departments to aid in project planning, design implementation, monitoring and evaluation, and adaptive management
- Update technical and management capacity to support progressive CEFPP implementation

#### **Abbreviations:**

ADB	Asian Development Bank
CE	Clean Energy
CEFPP	Clean Energy Financing Partnership Facility
CF	Clean Fuel
DMC	Developing Member Countries
EE	Energy Efficiency
GDP	Gross Domestic Product
IEA	International Energy Agency
PM	Person-Months
PPIS	Project Processing Information System
RE	Renewable Energy
RRP	Report and Recommendation to the President
TA	Technical Assistance

Figure 1. CEFPP Results Chain

### CEFPP Results Chain

