

# Climate Change as a Business Opportunity: Roles of Financial Institutions on Mitigation and Adaptation of Climate Change

## *Financing Energy Efficiency*

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# Presentation Outline

- **Barriers to Financing EE**
- **ADB's Clean Energy and Environment Program**
- **ADB's Experience Financing Energy Efficiency (EE)**
- **New Approached to Financing EE**

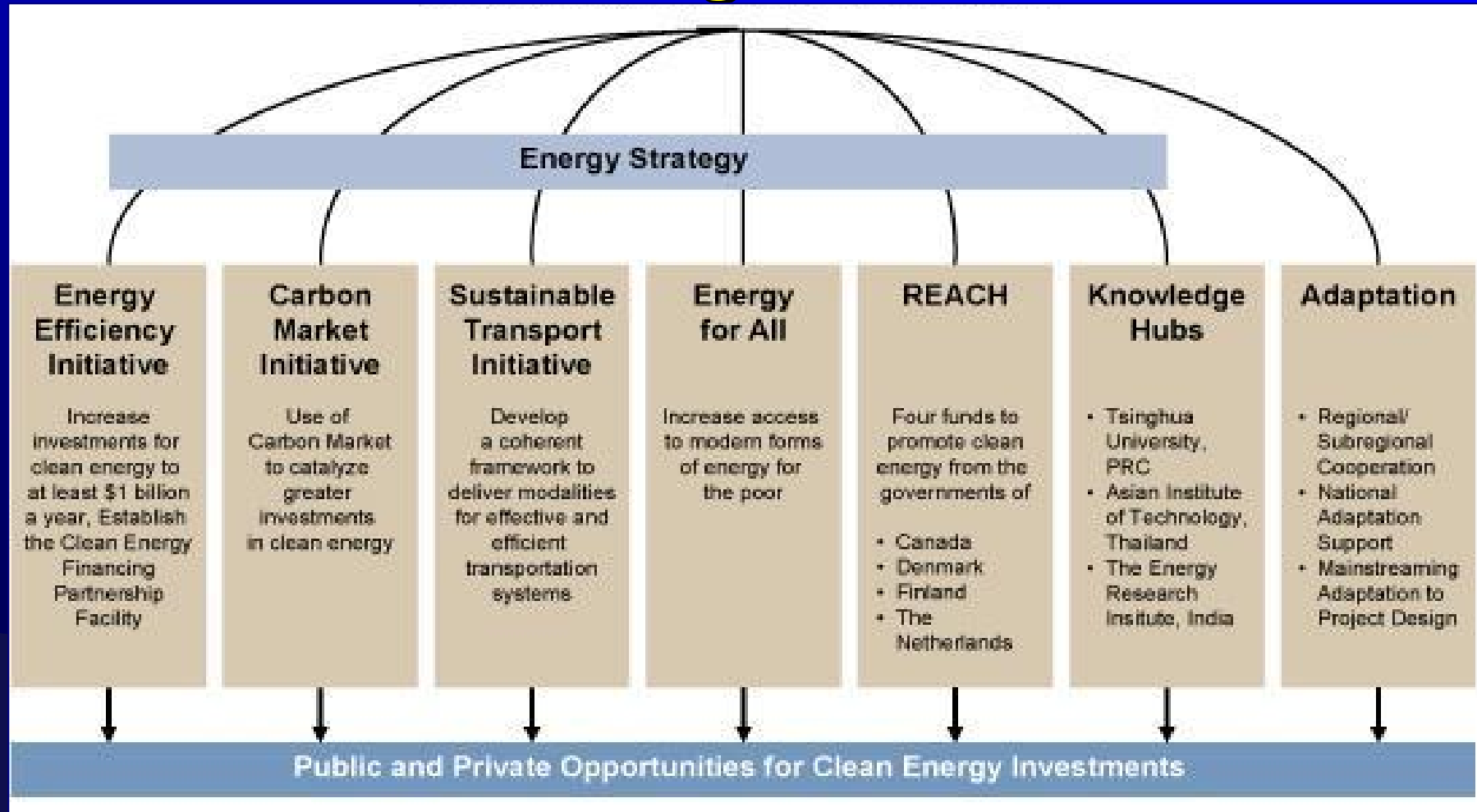
# Barriers Against Financing Energy Efficiency

- For ADB
  - Transaction Amounts
  - High Transaction Costs
- For Financial Institutions
  - Not at Problem for Multi-nationals
  - More of a Problem for Regional and Local FIs
  - Basically, Corporate Finance or Loan for Plant and Equipment
  - Balance Sheet Lending
  - Therefore not a Priority

# Possible Solutions

- ADB to Develop New Approaches and Financing Mechanisms
- FI do not Need a Line of Credit. They Want to Share the Risk
  - Partial Credit Guarantees
  - Performance Guarantees
  - Need Technical Support
  - May Need to Re-Look at their Underwriting Criteria

# Clean Energy and Environment Program



# ADB's Energy Policy

- ADB's Energy Policy identifies four operational priorities:
  - Poverty reduction
  - Promoting private sector involvement
  - Addressing regional and global environmental impacts
  - Promoting regional cooperation
- Currently Reviewing Energy Policy:
  - Greater focus to address energy security and climate change through improved energy efficiency and greater use of indigenous forms of renewable energy

# ADB's Clean Energy Loans: Past and Future

Year	Total Approved Loans (\$ million)	Clean Energy Investment (\$ million)	% Increase CE Investment (yr to yr)	CE as % of overall ADB Loan
2003	6,120	206	0	3.37
2004	5,203	381	84.95	7.32
2005	5,957	638	67.45	10.71
2006	7,657	833	30.56	10.88
2007*		911	9.36	-
2008*		1,234	35.46	-
2009*		1,124	-8.91	-

\* Pipeline Loans

# ADB's Clean Energy Loans: Across Energy & Non-energy Sectors

Year	Energy		Agriculture		Water & Sanitation		Transport		Multisector		Total	
	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)	No. of Loans with CE Comp	Clean Energy Comp of Loans (\$ million)
2003	6	140.2	1	6.0	2	9.8	1	50.0	0	0.0	10	206.0
2004	6	274.5	1	1.1	1	8.0	1	18.0	4	79.9	13	381.5
2005	5	589.1	0	0.0	2	8.5	1	40.0	0	0.0	8	637.6
2006	11	801.0	1	1.8	1	0.3	1	30.0	0	0.0	14	833.1
2007*	26	897.5	1	4.5	0	0.0	2	8.5	0	0.0	29	910.5
2008*	15	1,151.7	0	0.0	0	0.0	5	32.0	1	50.0	21	1,233.7
2009*	21	1,082.0	2	5.0	0	0.0	3	37.5	0	0.0	26	1,124.5
Total	90	4,936.0	6	18.4	6	26.6	14	216.0	5	129.9	121	5,326.9

\* Pipeline Loans



# ADB's Energy Efficiency Initiative (EEI)



- ADB launched EEI in July 2005
- Expand EE operations to \$1 billion/yr
- Focus on both supply-side and demand-side EE (including RE)

# Mainstreaming EE in ADB Operations

## Phase I Initiation

(Jul 2005 – Jun 2006)

- Establish rationale for expanded ADB action in EE
- Provide priorities and framework for next steps



## Phase II Formulation

(Jun 2005 – Dec 2007)

- Prepare country-level investment/action plans and project pipeline
- Design and establish the Clean Energy Financing Partnership Facility (CEFPF)
- Develop institutional capacity to scale up EE investments and perform EE monitoring & evaluation
- Pursue immediate EE investment opportunities



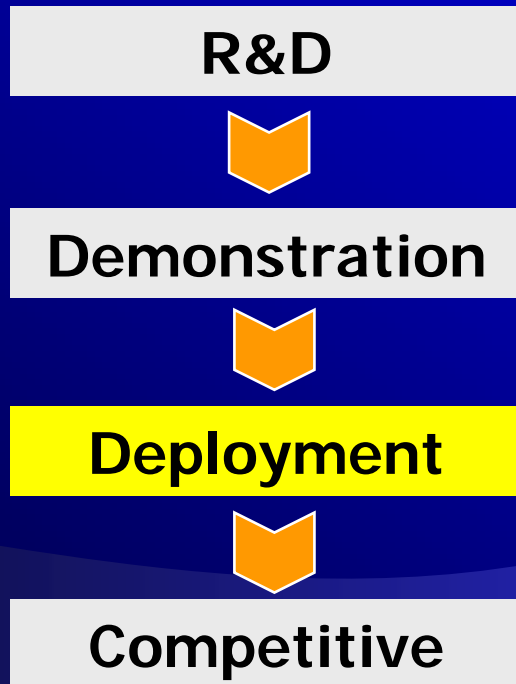
## Phase III Implementation

(2007 – 2010)

- Execute investment and action plan
- Process projects in pipeline
- Commit CEFPF fund

# Clean Energy Financing Partnership Facility (CEFPF)

## Stages of Technology Development



- Objective is to “buy down” the higher costs of the new technologies to facilitate their deployment.
- Targets small number of high-impact large interventions that will deploy new EE technologies
- IEA identifies the crucial need for large deployment programs to bridge between EE and RE technology R&D and commercialization

Source: IEA Energy Technology Perspectives 2006

# Clean Energy Financing Partnership Facility

## TF Component

**Multi Donor Trust Fund**

**Individual TF**

**Individual TF**

**Framework Agreement**

**Joint or Parallel Cofinancing**

**Framework Agreement**

**Knowledge Sharing**

e.g. secondments etc.

**Framework Agreement**

**Risk Sharing**

e.g. credit guarantees with first loss coverage

**PROJECTS**

**Grant Components of Investments**

**Technical Assistance**

**ADB**

# Examples

- **Partial Credit Guarantee for Energy Efficiency in PRC**
  - Local financial institutions (LFI) unwilling to make loans for EE projects
  - ADB specifies a list of EE projects that we are willing to provide PCG for.
  - We provide PCG facility for 3-4 banks. Up to \$100 million. 80/20 for the first 10% and 60/40 for the remaining 90% of the portfolio.
  - LFI uses its marketing, due diligence process, and underwriting guidelines.
  - By doing this, we share the risks of EE projects and catalyze greater local financing of EE

# Examples

- Performance Guarantee in ?
  - Focused on energy service companies
  - A rating agency is established through international competitive bidding
  - Agency reviews proposals/contracts
  - If technically, legally, and financially viable, ADB will put its guarantee behind a contract
  - ESCO can then take the contract to local FIs for financing
  - Performance guarantee covers the the FI, not the ESCO or the equipment

# Examples

- Wind in Sri Lanka
  - ADB to get the concession from government to develop wind farms in eastern Sri Lanka
  - Using CEFPP resources, ADB will set up company, do the micro-siting, negotiate and sign PPA, and build wind farm
  - Once build, can sell it off.
  - Example of catalyzing investment in RE

# Examples

- **Waste to Energy in India**
  - **INR 760 million for a waste-to-energy conversion project in Delhi**
  - **Requested amount from CEF INR 20,000 (~ \$500,000) to buy down the capital cost of the new technologies**
  - **Catalyze the deployment of new technologies for something that is clearly replicable and scalable.**



# For More Information

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