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EE Finance in India- some progress and what next?

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Background

- Key component of ECO Asia CDC Project
- Supported by APP
- Joint initiative of IRG and IIEC

Scope of the study

- Overall market size for energy efficiency investments India across key sectors
- Overview of the existing policy mechanisms for EE
- Some indicators of national investments in EE
- TA and donor assistance for EE
- Details on selected funds and instruments.
- Near term advisory needs and key strategic areas for policy development



Methodology

- Secondary sourcing of national reports on EE potential and achievements
- Listing out policy initiatives for EE
- Listing of financial institutions and international agencies who have had some initiatives for EE
- Schedule for interviews on experiences, successes and lessons from EE project financing
- Advisory and next steps



Electricity sector snapshot, 2005

Electricity	Units (Gwh)	%
Total Production	597,370	100
Distribution Losses	174,806	29.26
Total Consumption	422,564	70.74
Breakup of Electricity Consumption		
Energy Sector *	47,995	11.36
Agriculture	95,685	22.64
Public and Commercial Services	34,761	8.23
Industry	210,040	49.71
Transport	10,424	2.47
Others	23,659	5.60
Per Capita Consumption	480 kWh	

Source: IEA, Electricity/ Heat statistics for India (2005), <http://www.iea.org>



BEE estimate for EE in INDIA

- Energy conservation potential assessed at present- 20,000 MW
- Harnessed during Tenth Five Year Plan- 877 MW (as reported by the participating units in the National EC Awards)
- Target for 11th FYP- 10,000 MW

Source- MOP- Power for all 2012



EE potential- ADB TA report, 2004

Market Type	Investment potential Rs. Billions (\$ mill)	Energy Savings (Bwh)	Energy Savings (MW)
Industrial – Generic EE Measures	42.0 (1,050)	23.8	3,400
Industrial – Process EE Measures	79.0 (1,975)	25.2	3,600
Commercial	6.59 (1,647)	0.8	290
Municipal	13.0 (325)	3.7	1,688
Total	141.0 (3,500)	53.5	8,978

EE potential- BEE estimates

Sectoral intervention potential	Energy savings (BkWh)	Likely investments by private sector (US\$ billion)
Agriculture	60	3.75
Lighting	70	1

Source- BEE

Policy environment for EE to happen

- Information on EE to be reported in company's annual report
- Accelerated depreciation benefits to EE projects on selected equipment (80% of disposable profits in the first year of installation)
- Energy Conservation Act, 2001 passed to provide an overall thrust to EE and EC.
- Bureau of Energy Efficiency set up in 2002
- Formation of state energy conservation funds



Policy environment for EE to happen

- Different schemes to encourage energy audits, through 50% cost sharing
- Grant funds to encourage preparation of DPRs for EE projects
- Electricity Act, 2003 provides for regulatory action for pass through of costs for EE expenditure
- Load management surcharge provided for in Maharashtra (later withdrawn)
- Incentives for installation of solar home water heating systems



Technical assistance for EE initiatives

- USAID provided for TA grant of about US\$ 25 million over the last 10 years
 - ♦ Establishment of a loan fund moderated by ICICI through Energy Conservation and Commercialization (ECO) and Greenhouse Gas Abatement Program (GEP) \$ 10 Million
 - ♦ Application of a Development Credit Alliance (DCA) mechanism of \$ 5 Million, currently operated by YesBank
- GTZ providing TA for over a decade in various areas of EE standards, labelling, CDM project preparation

Loans for EE projects

- WB 3- country study on EE (India, China, Brazil)- followup with five banks setting up EE instruments
- ADB line of credit for EE 1994- 2005
- IREDA- dedicated financial institution for RE and EE, line of credit from WB for \$ 20 million for EE projects
- Some selected states have set up a dedicated fund for urban development projects- for EE these include street-lighting, water works
- Discussions ongoing for KfW and JBIC

Institutions covered in survey

Category	Names
Donors and multilateral/bilateral development banks	The World Bank Asian Development Bank KfW
Commercial private sector banks	ICICI Bank Limited Yes Bank Limited
Public sector banks	IREDA SBI Canara Bank
State-participated energy conservation funds/facilities	TNUDF KUIDFC
Energy Services Companies	DSCL Energy Private Limited

Surveys- institutions

	ICICI Bank	SBI	Yes Bank	IREDA
Sectors Financed	Commercial, Industrial, SME's & Public	Industrial & SME's	Commercial, Industrial, SME's & Agriculture	Commercial, Industrial, SME, Agriculture
Technology Financed	EE Service, Industrial EE Equipment (Boilers, Waste Heat Recovery), Lighting	Industrial Cogeneration	Industrial EE Equipment (Cogeneration, Boilers, Waste heat recovery)	DSM (Installation of Capacitor Banks), Industrial EE Equipment in sugar & cement mills, Waste heat recovery
Lending to new customers	Yes	No	Case to case	Yes
Term of loan	3 – 5 years	5 – 7 years	3 years	6 – 10 years
Interest rates	7 – 9%	Commercial	N/A	10 – 12%
Penalties & Rebates	Yes	Yes	N/A	Yes
Collateral Requirements	Depends on type of project, risk, etc.	Existing lien through working capital engagement	Assets/ Guarantees	

Advisory needs for donors

- Technical assistance on setting up dedicated fund- such as SECF, Urban Development Funds, direct credit lines
- Risk guarantee fund at the national or state level



Advisory for banks and financial institutions

- Training and capacity building of the bank officers is an important requirement identified under various studies.
- Need for identifying EE as a separate business sector with associated targets for financial institutions, to be reported at the national level
- A stronger security mechanism may be needed so that good bankable projects are encouraged to generate large scale implementation and deployment of EE technologies in India.

Advisory for policy makers

- As the utility-driven and regulatory supported uptake of EE investments shows some success stories, capacity development and technical assistance at the regulatory commissions will enhance the EE implementation.
- Need for supporting TA for the development of state energy conservation funds (EC Act, 2001).
- Notification of relevant clauses for energy audits and implementation of EE projects, as well as notification to conform to industry level standards.

Advisory for implementing organizations

- There is a need for increased efforts to convert audits to detailed project reports in specific action areas through providing soft support.
- Need for corporates to declare commitment to EE and to have reporting at the Board level on investments and results of EE
- Need for designated consumers to indicate clearly the budgets for EE in their annual budgets, as required for implementation under the EC Act.
- Focused efforts to develop ESCOs into the industrial sector



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Thank You!

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