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Financing Sustainable Energy

IFC Initiatives

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IFC

- **Promote private sector development**
- **Invest only in private sector ventures**
- **Does not accept sovereign guarantees**
- **Catalyst for other investors and lenders**
- **Commercial and Profit Oriented Model**
- **Invest in companies with strong business fundamentals**
- **40% of portfolio invested in Financial Intermediaries**
- **Support and TA**



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IFC Financing: Key Elements

EQUITY

Normally 5%-15% Ownership
Not Single Largest Shareholder
No Direct Involvement in Management
Long-term Investor: 5-15 years
Public Listing Preferred Exit Mechanism

LOAN

Normally Hard Currencies
Market Interest Rates
Long-term: up to 15 years
Appropriate Grace Period
Secured by Project Assets
No Government Guarantees



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IFC: A Partner in Clean-Tech Energy Investments

Project Examples

– *Energy Efficiency – Risk Sharing Facility and Grant.*

CHINA: US \$150 million risk sharing facility to finance energy efficiency equipment for industrial and commercial users

– *Renewable Energy - Project and Carbon Finance.*

INDIA: US \$15 million corporate loan and US \$10 million forward carbon credits contract, Balrampur Chini Mills Biomass Projects

– *Energy Efficiency - Venture Capital.* **INDIA:** US \$600,000 early stage equity investment in manufacturer of low-cost steam/gas micro turbines



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IFC Renewable Energy Investments

**Since 1990 IFC has financed \$1.1Billion in 23 RE projects
(15 Hydro, 2 wind, 2 biomass and 1 geothermal;
1 corporate loan; & 2 FIs)**

- **Hydro projects in Belize, Brazil, Chile, Costa Rica, Guatemala, India, Nepal, Tajikistan, Turkey, India and China**
- **Wind projects in Dominican Republic and Brazil and others under review in India, China, Pakistan and Mexico**
- **Biomass cogeneration projects in Guatemala and India**
- **Geothermal project in Guatemala**
- **Off-Grid Solar Photovoltaics Financing with GEF in: Bangladesh, DR, Kenya, Morocco, India, and Vietnam**
- **GEF-supported 1 MW Grid-connected Solar PV plant Operated in Conjunction with 7 MW Small Hydro in the Philippines**
- **CSR work with Other Investee Companies to prepare Sustainable Energy pilot projects, e.g. micro-hydro in Bolivia**



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Balrampur Chini Mills Biomass Projects in India

- **Two 20 MW bagasse cogeneration plants to be located at a new greenfield sugar mill and an existing sugar mill in Uttar Pradesh**
- **Small ethanol distillery also constructed**
- **Sponsor is Balrampur Chini Mills Ltd.**
- **IFC provided \$15 million in corporate loan**
- **Carbon credits from two plants sold via forward contract to IFC-managed Netherlands Carbon Fund**



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IFC – GEF, RE Portfolio

Sri Lanka: PADGO US\$4m. Potential technologies:

1. Mini-hydro plants (usually less than 10 MW) using run-of-river designs,
2. Wind based generation: Ranges from the large MW size turbines to much smaller machines in the kW sizes,
3. Reciprocating Engines (RICEPs) using biomass (bagasse, rice husks, farm wastes) combustion, as well as those associated with gasification,
4. Turbine generators combined with biomass digesters, or gasification devices,
5. Stirling engines (usually several kW in capacity), and
6. Solar energy systems and TA



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IFC – GEF, RE Portfolio

Sustainable Energy Facility (SEF) US\$19m.

- Thailand: 5 year financing support: Fund-based approach to developing small- to medium-sized projects in the sustainable energy area.



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IFC – GEF, RE Portfolio

Philippines: CEPALCO US\$4m. Photovoltaic demonstration project

- 1MW grid-connected PV plant to supplement hydro plants
- Potential replicability