

Clean Energy Finance

Mobilizing Private Sector Financing for Energy

CSD-14 Learning Center

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E+Co

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E+Co

E+Co, a public purpose investment company established in 1994, delivers services to and invests in developing country small and medium energy enterprises that deliver **modern energy** to households, businesses and communities, creating:

- economic opportunity;
- quality of life improvements and
- positive environmental impacts

Triple Bottom Line Returns

E+Co operates in 20+ countries through locally based staff in Costa Rica, Brazil, Bolivia, South Africa, China and Thailand, with support offices in The Netherlands and US.

E+Co Overview

- **Business Development Services** are provided Pre- and Post Investment to support market and technology validation, financial analysis and structuring, business plan development, implementation and growth.
- **Investments** (equity and debt)
 - Early stage (developmental) and Growth Investments structured based on local market conditions and enterprise needs.
- E+Co **blends public and private resources**.
- **Sponsors** include social investors, charitable foundations, financial institutions, multilateral banks and development organizations, bi-lateral agencies and multi-national corporations.

E+Co is **technology neutral** – the technology must be appropriate, available and affordable to its end-users. The **Business Model** must be appropriate and sustainable, with growth and/or replication potential.

- | | |
|--------------------------|------------------------|
| • Hydro | • Solar Thermal |
| • Biomass | • Liquid Petroleum Gas |
| • Biogas | • Energy Efficiency |
| • Solar PV | • Wind |
| • Natural Gas | • Cookstoves |
| • Rural/Peri-Urban/Urban | |

E+Co Portfolio Performance Summary January 1998 - January 2006

- 120 investments \$16.7 million in 35 countries
- Co-financing \$111 million from third parties
- 17 Enterprises Written Off \$1.1 million
- 19 Loans Repaid in Full \$2.3 million; ROI 10.2%*
- Projected Weighted Average IRR on Total Portfolio, after write-offs: 8.4%*
- Modern Energy Services 2.8 million people
- Entrepreneurs Trained 710
- Firewood saved 76 million kg
- CO₂ offset annually 1.9 million tonnes
- Carbon Finance >\$1.2 million committed

* ROI excludes enterprise development costs and a portion of operating costs, which are funded separately through contracts and grants



Increased Use of Renewable Energy Resources Program (Financiamiento de Empresas de Energía Renovable en Centro America)

- US\$5.3 million, 5-year Leader with Associates Award implemented by E+Co and partners, 2000-2005.
- promote the development of Renewable Energy enterprises and projects, while increasing the capacity of financial institutions, entrepreneurs, and NGOs to support the region's RE sector
- 10 countries:
 - Central America (El Salvador, Guatemala, Honduras, Nicaragua and Panama)
 - Africa (Ghana, South Africa, Tanzania and Zambia) and
 - South America (Brazil)

Specific Tasks

- ✓ Business Plans
- ✓ FI Capacity Building
- ✓ NGOs and Entrepreneurs Capacity Building
- ✓ Next Stage Finance
- ✓ Policy Options
- ✓ Carbon
- ✓ Supporting BUN CA
- ✓ Manuals and Tools
- ✓ New Markets Expansion
- ✓ Cross-platform
- ✓ Monitoring and Evaluation



Barriers and E+Co Response

Barriers	E+Co Response
Bankable Business Plan/Proposals	Enterprise Development Services; Capacity Building
Lack of Investment	Central American Fund
Lack of Local Financial Institution Engagement	US Development Credit Authority Guarantee
Lack of Regulatory Policy	Policy Intervention
Outputs and Impacts Management	Monitoring & Evaluation; Triple Bottom Line
Knowledge Management: Lessons Learned Dissemination	Global Management System for cross platform learning



CAREC

Clean Energy Finance

- Central American Renewable Energy and Cleaner Production Facility
- Innovative Mezzanine and Debt Facility
- E+Co Capital Latin America – Fund Manager
- First closing reached at \$17 million; \$20 million target
 - Leveraged fund – 60% equity, 40% debt
- 20-25 SME Investments (70% RE generation, 30% energy efficiency)
- Market::15 million people lack clean energy in Central America
 - 5000-5700 MW of new capacity over next 10 years, 50-60% in renewable energy; = ~\$4 billion of investment
- ~10% Return to Equity Investors (MIF, BIO, FinnFund, CABEL, Triodos);
- USAID-DCA Principal Guarantee for Private Sector Debt
- ShoreBank-Chicago commitment of \$1.5 million in debt



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European Commission: Patient Capital Initiative

- Effort to identify public-private financing mechanisms for renewable energy project developers and businesses
- Global Renewable Energy “Fund of Funds” approach to provide for the efficient placement of industrialized country capital and to stimulate others to create more local, more specialized funds.
- Characteristics:
 - Investor and Donor commitment to the “fund of funds” of Euro 100 million
 - Investment in six or more sub-funds managed by local specialists and mobilizing local capital
 - Mobilization of more than Euro 450 million of capital and the entry of new investors into local markets
- Triodos International Fund Management and E+Co are managing the development, structuring and fund-raising of the PCI.

UNFCCC: HANDBOOK ON PREPARING TECHNOLOGY TRANSFER PROJECTS FOR FINANCING

- “...take all practicable steps to promote, facilitate and finance...the transfer of environmentally sound technologies and know-how...” Article 4.5 UN Convention on Climate Change
- Practioners Handbook: better projects, increased funding and shorter funding cycles can be enabled through enhanced tools accessible to both project “Champions” and those who receive their requests for financing (project “Enablers”).
- “Language Gap” among development, environment and finance professionals
- 7 Question Approach: What? Where? Who? How? Why? What If? To Whom?

Enterprise Example

Nicaraguan-based Clean Energy Company

Tecnosol, solar, wind and hydroelectric energy in rural areas of northern/ central Nicaragua. Provides energy alternatives for the lighting, refrigeration, water pumping and irrigation needs of businesses and communities that have no access to the main electricity grid. Tecnosol was identified through a FENERCA Financial Engineering Workshop.

Through FENERCA, E+Co provided:

- EDS:financial analysis, business plan structuring, strategic planning and training in proper accounting practices
- Technical Assistance: market study; develop the company's expansion plan
- Access to other entrepreneurs to exchange experiences and lessons learned
- “One-on-one” working sessions to discuss the market study results, elaborate expansion plan and identify financing requirements
- Two loans for a total of \$300,000: inventory purchases to expand their market and provide short-term credit to its customers
- Assistance to obtain certification by the Nicaraguan government as an eligible supplier of PV products under a new financing program: Credito Solar



Honduran Hydro Enterprises produces Triple Bottom Line Impact

La Esperanza is a 13.5 MW run-of-river hydro-electric project utilizing an abandoned powerhouse foundation.

La Esperanza produces triple bottom line benefits: financial, social and environmental. Permanent jobs, improved roads, reforestation, potable water and displacement of environmentally negative greenhouse gases.



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La Esperanza Highlights:

E+Co Financing:

US\$450,000

Term: 4 years

Co-Financing: \$12.6 million

Jobs Created: 40 direct, 120 indirect

Environmental Impact:

-Planting of more than 18 hectares of new forests.

-Displacing 35,000 tons of greenhouse gases annually that would result from the traditional use of fossil fuels.

La Esperanza Hydro Facility

E+Co's Value Added

- EDS for business plan preparation
- Catalytic Seed Capital for construction of the first powerhouse
- Follow-on investment to assist in securing financing for full construction
- Assessing and quantifying its carbon offset potential; packaging, selling and registering the FIRST small scale CDM project, which should close in 2004.



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