Investing in Clean Energy Enterprises in Developing Countries

Paul van Aalst, Director E+Co Europe

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Investing in “Access to Clean Energy”

- Services and Capital
- 194 local energy enterprises
- 20 developing countries

- $46 million invested
- $56 million under management
- $213 million mobilized

- 7.8 million people served annually
- 4.8 million tons of CO_2 displaced annually
- 23m ton CO_2 displaced over investment life

- 8 Offices in Africa, Asia, Latin America, NL and USA: 45 Staff

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Access to Clean Energy = Market Place

- Sustainable: willingness and capacity to pay
- Private sector (SME) for sustainable and equitable delivery
- Technologies: proven, affordable, flexible
- **Critical: Financing and Business Support Services**
  - Local investment and support
  - Global funding and market development

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Integrating Investment and Support

- For the SME Investor:
  - Risk Mitigation
  - Upside Improvement

- For the Business Sector:
  - More Robust And Sustainable Enterprises
  - Faster uptake of ‘access to clean energy’

- For the Financial Sector in emerging markets:
  - Stronger Asset Class of SMEs
  - More Investable Deals

➔ POSITIVE IMPACT JUSTIFIES EXTRA EFFORTS

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Environmental Impact Investing

For end-users in Africa, Asia, LAC

- Clean energy technologies were developed and tested in Europe, America, Japan;

  ↳ *Driven by climate change*

- Commercial application in developing countries

  ↳ ***Driven by affordable, reliable and clean services and products for 'access to energy'***

For investors from OECD

- Environmental impact matters as part of the return.

- E+Co reports on 11 environmental indicators, e.g.:
  - CO2 – offsets
  - Reforested Land
  - Charcoal and Firewood Displaced
  - LPG, Kerosene and Oil Displaced

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Reaching the Base of the Pyramid

- BoP spend 25% of income on energy (charcoal, batteries).
- Access to Clean Energy" saves time and money
- Energy-ladder: clean, safe, affordable, available

- Users living from <$2 per day have access to clean energy …:
  - When direct cash available:
    - Cookstoves
    - Small solar lamps
    - Grid connection with subsidized cost of connecting to the system
  - When micro-loans or other financing are available
    - Solar home systems
    - Biogas digester
    - Grid connection
  - Once higher income groups generate baseload / break-even turnover

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Fit-for-Purpose Financing

Off grid electrification

- *Solar home systems, lanterns*
- *Fuel efficient cook-stoves*

Small and Medium Enterprises

- Debt for investments
- Debt for working capital
- Equity for growth funding

Grid connected power :

- **Biogas / waste to energy**
- **Hydro power (small / mid)**

Project Financing and Project Development Funding

- Equity and venture-debt for project development
- Equity and debt for projects

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Bio2Watt

Biogas in South Africa

- 3MW biogas plant
- First industrial biogas plant in South Africa
- Cow manure from a feedlot of 20,000 cattle

- Financial structuring support from E+Co and DBSA during pre-feasibility study: 2007 - 2009
- The long awaited implementation of South Africa's feed in tariff regime (REFIT) system is beginning to take shape, with the SA government appointing transactional advisors and requesting project documentation
- E+Co initiated matching grant from SenterNovem of €600,000.

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Lambark LPG (Ghana)

- Lambark Gas is a twelve-year-old liquefied petroleum gas (LPG) distribution company
- Operates 4 LPG filling plants with a total storage capacity of 100 metric tons, 2 bulk LPG haulage trucks and 15 delivery motor cycles

- Acquired license to purchase LPG directly from the Tema Oil Refinery and retail directly to households, commercial and automobile customers. This license eliminates third party operators in the LPG supply chain, expands customer base, and improves profit margins to 21.5%'.

- Required by license to manage and maintain a minimum of 5 filling stations. Also required bank guarantees or cash to procure products from the refinery

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Tecnosol

Solar in Nicaragua

- Established in 1995, Tecnosol provides clean energy alternatives to rural Nicaraguan households, farms, schools and hospitals that have no access to main electricity grids.
- Tecnosol sells and installs: solar panels, small wind installation, small hydroelectric plants, solar water pumps and other affordable renewable energy solutions.
- In November 2006, Tecnosol was awarded the Renewable Energy & Energy Savings Award by President Enrique Bolaños of Nicaragua.
- Tecnosol operates mainly in rural and remote areas, tackling the challenges of limited public awareness about their technology, and lack of proper access and technical capacity in these regions.
- E+Co made the first of 4 investments in Tecnosol in 2003.

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