

Development of an Energy Efficiency Program for the Brazilian Market

Petrobras Distribuidora - BR and Econoler International - EII

REEEP Reunião Regional Preparatória para a América Latina e o Caribe

13 de Setembro de 2007



renewable
energy
& energy
efficiency
partnership



Current project

- Purpose:
 - Development of a structured EE Program for the implementation and financing of EE projects in the commercial and industrial sectors of Brazil, by EII and BR
- The partners:
 - Econoler International (EII): Canadian EE consultant
 - Petrobras Distribuidora (BR): largest Brazilian fuel supplier and now energy supplier
 - EII provided technical assistance through BR and REEEP funding
- The Funding
 - REEEP (78%): 70,000 €
 - Petrobras Distribuidora S.A. - BR (22%): 50,000 Reais (20,000 €) + in kind
 - Econoler International – EII (in kind)
- Objectives:
 - Reducing energy consumption and GHG emissions in Brazil
 - Raising the number of EE projects implemented
 - Reducing barriers to finance and implement EE projects



renewable
energy
& energy
efficiency
partnership



The energy services company (ESCO)

- A special purpose company (SPC) will be created under the energy services company (ESCO) concept, as a BR subsidiary (“coligada”).
- Be a private SPC held by BR up to 49%;
- Have other shareholders, probably an international ESCO, a local engineering firm, an electricity utility, each having less shares than BR;
- Offer the following services:
 - Take full responsibility for design, implementation, monitoring and financing of energy efficiency and conservation projects on behalf of industrial, commercial and institutional clients;
 - Guarantee the recovery of the original investment through the energy savings generated by the project over a specific period of time, generally from three (3) to five (5) years;
 - Results-based payments from the real savings generated.
- BR objectives are to ensure loyalty from its clients and to offer a competitive, profitable and replicable product



renewable
energy
& energy
efficiency
partnership



Project Outputs

1. EE market assessment for the program and identified target market segments
 - Industrial sector is the priority;
 - Commercial and institutional sectors, but on opportunity basis
 - The South East region has the highest potential
 - Focus on customers with energy costs of more than US\$ 2.5 M/yr
2. Developed EE program Business Plan, including marketing strategy
 - To be presented to BR's Board at the end of the restructuring process
3. Seven trained Petrobras BR employees that will be involved in the ESCO development
4. Initial Information Dissemination to potential beneficiaries and other stakeholders



renewable
energy
& energy
efficiency
partnership



Project Outputs

5. Development of a sustainable financing mechanism
 - The BNDES is interested in creating a special agreement with BR, derived from the PROESCO program, for financing EE projects that will be developed under the BR SPC/ESCO.
 - The PROESCO program can be used to obtain 90% financing for ESCO projects.
 - Conditions:
 - Project > 10 million Reais: TJLP + 1% BNDES + 0.8-1.8% BNDES risk spread.
 - Project < 10 million Reais: TJLP + 1% BNDES, 1% BNDES risk spread + 3% for risk spread of commercial bank
 - The remaining 10% could come from the SPC/ESCO equity or from the client.
 - IFC may also be interested in equity.



renewable
energy
& energy
efficiency
partnership



Intended Project Impacts

1. **Reduced barriers to financing and implementing EE projects** in the targeted sectors in Brazil
2. **Increased number of EE projects implemented in Brazil** in short, medium and long term, generating important sustainable **GHG emissions reduction**
3. Strong signal from the Brazilian market of the **increased interest in EE** by major national players such as BR
4. **Increased interest** from other institutions in **co-financing the EE projects**



renewable
energy
& energy
efficiency
partnership



Relevance of the Project to REEEP objectives and program priorities

REEEP objectives and program priorities	Project relevant to achieving these objectives
<p>Reduce greenhouse gas emissions</p>	<ul style="list-style-type: none"> • Overall assessment: high • New SPC has the objective of reducing energy consumption by 1575 GWh in the first five years; they will thus reduce GHG emissions
<p>Deliver social improvements to developing countries and countries in transition, by improving the access to reliable clean energy services, and by making REES more affordable</p>	<ul style="list-style-type: none"> • Overall assessment: high • By reinforcing its involvement in RE and EE, BR may extend its action to improve access to reliable clean energy services and thus result in social improvements
<p>Bring economic benefits to nations that use energy in a more efficient way and increase the share of indigenous renewable resources within their energy mix</p>	<ul style="list-style-type: none"> • Overall assessment: high • The objective is to reduce by at least 10% the energy consumption and cost of industrial and commercial sectors (49% of the total Brazilian energy consumption including the energy sub-sector) making them more competitive.



renewable
energy
& energy
efficiency
partnership



Conclusions

- Did REEEP make any difference to the project? Yes! Why?
 - REEEP co-financing motivated BR to also co-finance the project.
 - It provided targets to be reached within a year... and they were.
 - It allowed BR to benefit from EII experience in ESCO business plan development.
- All project's expected outputs/outcomes were fulfilled
- We can conclude the project was a success



renewable
energy
& energy
efficiency
partnership

