

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**USAID sponsored Leader with Associates Cooperative Award**  
**Number LAG-A-00-00-00008-00**  
**Increased Use of Renewable Energy Resources Program**

**Second Quarterly Report – Biannual Report**

As of October 31<sup>st</sup>, 2000

**Project Working Title: FENERCA (Financiamiento de Empresas Energéticas en Centroamérica)**

**EXECUTIVE SUMMARY**

FENERCA's first report presented a detailed account of the results and activities undertaken during the first four months of program implementation (April 18, 2000 to August 23, 2000). During these first four months FENERCA's work focused on "Task CA1: Rapid Assessment and Final Work Plan development", the program's launching pad designed to hold specific consultations and gather country-specific insights. The present report focuses on the deliverables produced as part of Task CA1, while describing other important achievements reached during the period. These deliverables include further advances with regards to the development of project specific business plans, drafting of the off grid services, carbon and M&E manuals and the MME mechanism.

**Background** - The Increased Use of Renewable Energy Resources Program for Central America is being implemented by E&Co, in close partnership with BUN Central America and PA Consulting (formerly Hagler Bailly). The program aims to assist five countries in the region (Guatemala, El Salvador, Honduras, Nicaragua and Panama) set a course that integrates environmental and economic sustainability into their energy development agenda. FENERCA (Financiamiento de Empresas Energéticas en Centroamérica), as the program has been titled considering cultural and language characteristics of the region is being undertaken over an eighteen-month period (April 18, 2000 – October 18, 2001).

FENERCA's activities include:

**Task CA1: Rapid Assessment and Final Work Plan Development**  
**Task CA3: Enterprise Development Services and Completion of Business Plans**  
**Task CA4: Strengthening of Financial Institution Capacity**  
**Task CA5: Capacity Building for the Finance Sector on Smaller-Scale and Rural Energy Applications**  
**Task CA6: Organizing of Next-Stage Financing**  
**Task CA7: Developing Regulatory and Policy Options for Renewable Energy Projects**  
**Task CA8: Facilitation of Carbon Transactions**  
**Task CA9: Support and Capacity Building of BUN CA**  
**Task XC1: Off-Grid Services Manual**  
**Task XC2: Preparation of a Carbon Manual for Entrepreneurs**  
**Task XC3: Monitoring and Evaluation Manual and Task XC3a: Business Plan Development Manual for Renewable Energy Entrepreneurs**  
**Task MME: Program Management, Monitoring and Evaluation**

# FENERCA

## Second Quarterly Report – Biannual Report

Eight of FENERCA's activities focus specifically on enterprise (project) development, next stage finance, capacity building, and policy and regulatory reform in El Salvador, Honduras, Guatemala, Nicaragua and Panama. Three activities involve the development of user-friendly manuals for off-grid energy deployment, greenhouse gas information for project entrepreneurs, a monitoring and evaluation manual for renewable energy projects. The final activity of FENERCA's originally anticipated eleven tasks is a program-specific management, monitoring and evaluation mechanism.

As a result of the number of projects and local needs identified through Task CA1, one sub-task has been added to the program: Task XC3a: Business Plan Development Manual for Renewable Energy Entrepreneurs (formally Task XC4, in FENERCA's first quarterly report). The manual aims to provide a stand-alone document that will enable renewable energy entrepreneurs to assess the different risks inherent to their projects and develop targeted business plans that can be submitted to potential funders.

### ***Main results***

As of October 31<sup>st</sup>, FENERCA's results under each of the originally anticipated tasks are as follows:

#### **Task CA1: Rapid Assessment and Final Work Plan Development**

- Preparation and distribution of **537 surveys**, exceeding anticipated results (which targeted 400 surveys). Questionnaires distributed amongst 3 different stakeholder groups in the region: entrepreneurs (188), financial institutions (142) and NGOs (207).
- **22% response rate** (a total of 116 surveys were returned).
- CA1 has been concluded and **100% of the targeted work completed**.

#### **Task CA3: Enterprise Development Services and Completion of Business Plans**

- Survey distribution and other targeted outreach including **five country-specific missions** and meetings with almost **80 different organizations** (including project entrepreneurs, energy organizations both public and private, NGOs, financial institutions and USAID local missions in El Salvador, Guatemala, Honduras, Nicaragua and Panama), took place. Task exceeded anticipated results regarding project identification work and number of stakeholders consulted (20 projects and 25 stakeholders had been anticipated).
- **Ninety-two (92) projects at different stages of development identified** Project examples include:
  1. A 600 kW hydroelectric project in Honduras;
  2. A Photovoltaic System Leasing program with a target of 100 units per month in El Salvador;
  3. A 50 MW hydroelectric project in Guatemala for sale to the Spot Market;
  4. A 600 kW biomass-to-energy project using peanut shells to supply the electricity demand of a peanut processing plant in Nicaragua;
  5. An initiative to disseminate PV systems for water pumping in rural communities in Panama;
  6. A small hydro project for decentralized energy supply to an un-electrified community in Nicaragua;
  7. A 6 MW bagasse co-generation project in Honduras;
  8. A biomass-fueled biogas system to provide process steam for a limestone processing plant in El Salvador;
  9. A municipal energy enterprise in Guatemala;
  10. A hybrid wind-internal combustion system to supply energy and clean water to an un-electrified Island in Honduras.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

- Initial list of 92 projects analyzed and trimmed to 40 possible projects. Of these, **20 have been selected to receive business plan preparation support** under CA3.
- **5 business plans currently under preparation.** 3 business plans have currently been finalized and are being reviewed by the FENERCA team. The target is to have a total of 6 business plans finalized by December 31, 2000 and 4 additional business plans by March 31, 2001. 10 other business plans will be finalized by October 2001, to complete the target of 15-20 business plans anticipated by this task.

**Task CA4: Strengthening of Financial Institution Capacity**

- With FOCER (a UNDP/GEF/BUN-CA initiative), Honduras' Energy Secretariat and Ministry of Natural Resources, training session on **Financial Engineering for the Energy Sector took place in Honduras on July 12 and 13, 2000.** Focused on strengthening stakeholders' capacity on business plan development and renewable energy project finance.
- **2 FI's (BANCATLAN and BCIE) trained,** according to anticipated results.
- **Targeted training material developed, translated and distributed.** Training material currently being improved and expanded in preparation for upcoming training sessions.
- 2 additional training sessions (**El Salvador and Guatemala**) scheduled for January 2001, currently being prepared.

**Task CA5: Capacity Building for the Finance Sector on Smaller-Scale and Rural Energy Applications**

- Joint CA4-CA5 training session on **Financial Engineering for the Energy Sector that took place in Honduras on July 12 and 13, 2000.** Included NGOs and governmental sector stakeholders.
- **Attended by more than 30 participants.**
- FENERCA met anticipated results originally targeted to begin during the second and third quarters of program implementation.
- **Targeted training material developed, translated and distributed.** Training material currently being improved and expanded in preparation for upcoming training sessions.
- 2 additional training sessions (**El Salvador and Guatemala**), "back to back" with CA4, scheduled for January 2001, currently being prepared.

**Task CA6: Organizing of Next-Stage Financing**

- **5 projects currently being analyzed** by E&Co for financing. Potential investment will most likely exceed original commitment of US\$230,000 investment from E&Co.
- Co-financing from local as well as international FI's and funds currently being sought.

**Task CA7: Developing Regulatory and Policy Options for Renewable Energy Projects**

- Involved stakeholders consulted and **specific needs addressed as part of CA4 and CA5.**
- Draft document on policies and barriers that need attention drafted and currently being reviewed.

**Task CA8: Facilitation of Carbon Transactions**

- **5 potential projects identified.**
- **Necessary documentation to proceed with project sponsors** currently under preparation.

**Task CA9: Support and Capacity Building for BUN-CA**

- **14 NGOs working as part of BUN's network**
- **6 new professional contacts established,** including contracts with in-country representatives in each of FENERCA's targeted nations.

## FENERCA

### Second Quarterly Report – Biannual Report

- At least **180 person-hours of training received by BUN-CA** in business plan development and RE financial engineering, in addition to “on the ground” project preparation activities.
- **BUN-CA’s Business Plan** currently under preparation. Draft Institutional Planning and draft Programmatic Strategy submitted in August 2000. Feedback from E&Co recently provided. Final business plan expected by end of year 2000.
- **BUN-CA’s first biannual report** was submitted at the end of October.

#### Tasks XC1 (Off-Grid Services Manual), XC2 (Preparation of a Carbon Manual for Entrepreneurs) and XC3 (Monitoring and Evaluation Manual)

- Draft XC1 under preparation by PA Consulting.
- Draft XC2 manual under development with E&Co lead. Potential local partners (including Fundación Solar) identified, to avoid duplication of efforts in the CA region.
- Draft XC3 manual under development by E&Co.
- Target delivery date of three draft manuals: November 2000.
- Sub Task XC3a (formerly Task XC4): Business Plan Development Manual for Renewable Energy Entrepreneurs: unanticipated deliverable included in FENERCA to address larger than expected response during CA1. Draft manual completed by E&Co, building on a substantial contribution of materials from the United Nations Foundation/UNEP/E&Co “ARRED” program in Africa. Currently being translated to be distributed during CA4 and CA5 training sessions. Target delivery date: November 2000.

#### Task MME: Program Management, Monitoring and Evaluation

- **Final Work Plan completed** as originally anticipated, including specific targets for all program-related tasks.
- Organizational/administrative and operational activities necessary for program “kick-off” almost completed. BUN-CA’s sub-contract and engagement of the 5 in-country representatives completed; PA Consulting sub-contract under review by USAID.
- Task MME: **development and implementation of program specific and management reports**, as well as establishment of a timetable to hold periodical coordination/monitoring meetings. Specific MME reports received on schedule.
- **First coordination session was held on July 14 in San Salvador, El Salvador.** In-country representatives and management team gathered to commence FENERCA and ensure proper support.
- **Second coordination meeting scheduled for January 2001.** To include training session for 5 in-country representatives and BUN-CA staff.

#### Other achievements

- **Leverage:** FENERCA has been able to leverage from other renewable energy initiatives currently undergoing, including:
  - a. AREED: Africa Rural Energy Enterprise Development program, sponsored and co-managed by the UN Foundation, UNEP and E&Co.
  - b. FOCER: a Central American initiative for the “Creation and Strengthening of the Capacity for Sustainable Renewable Energy Development in Central America”, sponsored by UNDP/GEF and managed by BUN-CA.
  - c. Collaboration with two significant programs: UNDP/GEF’s FOCER Climate Change initiative and the United Nation’s Foundation AREED (Africa Rural Energy Enterprise Development) program, to achieve significant leverage of USAID’s resources.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

- **FENERCA website:** in use since beginning of July. Includes CA1 targeted surveys, contact information, main goals and anticipated results. Address is [www.energyhouse.com/spanish/fenerca](http://www.energyhouse.com/spanish/fenerca).
- **FENERCA brochure:** 1000 pamphlets printed in September, 2000. Includes specific contact information and general program details. Currently being distributed amongst contacted stakeholders.

***Conclusions and recommendations on course corrections***

1. Increase involvement of in-country representatives. Strengthen their business plan development capacity to ensure adequate support to local RE entrepreneurs. Specific training session targeted for January 2001.
2. Focus on project-specific policy interventions. Further advance work under CA7, determining a task-specific work plan and more targeted deliverables.
3. Complete first full draft of cross-cutting activities.

The following report provides substantial detail on all of these matters.

Respectfully submitted,

Phil LaRocco  
Project Director

Johanna Hjerthén  
MME Manager

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**SECTION 1: OBJECTIVES**

**The present report has been developed to meet the obligations described in Attachment 1, Paragraph E, numeral 2, “Program Reporting”, of the Leader with Associates Cooperative Award, Number LAG-A-00-00-00008-00, on the Increased Use of Renewable Energy Resources Program. According to subparagraph a. of the award: “Performance reports are required to be submitted quarterly and shall present the information contained in 22 CFR 226.51 9 (d)”. Such information specifies: “Performance reports shall generally contain, for each award, brief information on each of the following:**

(1) A comparison of actual accomplishments with the goals and objectives established for the period, the findings of the investigator, or both. Whenever appropriate and the output of programs or projects can be readily quantified, such quantitative data should be related to cost data for computation of unit costs.

(2) Reasons why established goals were not met, if appropriate.

(3) Other pertinent information including when appropriate, analysis and explanation of cost overruns or high unit costs.”

**According to subparagraph b. of the award also, “The Recipient shall submit a programmatic report semi-annually to the Cognizant Technical Office in the Global Bureau of the Leader award that summarizes activities undertaken, progress made/results achieved, trends, problems, etc. under both the Leader agreement and Associate awards.”**

The current report covers the period from **April 18<sup>th</sup>, 2000**, when the program became effective, to **October 31<sup>st</sup>, 2000**. Because of the depth of the first quarterly report (which covered the first four months of program implementation, until August 23<sup>rd</sup>, 2000), the present report relies on the information and details provided in that first document and presents brief summarized updates of the work achieved between August 23<sup>rd</sup> and October 31<sup>st</sup>. These updates include summary tables that describe the anticipated results and the progress/results achieved during the reporting period. For each task, a concise summary of the specific activities undertaken is provided.

The present report supplies information regarding the organizational, administrative and operational activities advanced by the program, in those cases in which those activities were previously identified as areas of course correction. The work and results achieved in those areas were described in detail in the first quarterly report.

The report has been organized as follows:

1. Section 1 presents the report’s objectives, according to the requisites established by the Leader with Associates Cooperative Agreement Award, Number LAG-A-00-00-00008-00, Attachment 1, Paragraph E, numeral 2.a. and 2.b.: “Program Reporting”, according to 22 CFR 226.51 9 (d).
2. Section 2, presents a background summary of the proposal’s targets and objectives as originally foreseen in the Leader with Associates Cooperative Agreement Award, Number LAG-A-00-00-00008-00 submitted in December 1999 and amended in March 2000.
3. Section 3 provides a summary of the targets anticipated for each of the twelve tasks at project inception, as well as an overview of all activities undertaken as of October 31<sup>st</sup>, 2000.
4. Section 4 summarizes the main conclusions and provides recommendations on course corrections, considering the improvements suggested in the first quarterly report.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**SECTION 2: BACKGROUND**

The Increased Use of Renewable Energy Resources Program for Central America is being implemented by E&Co, in close partnership with BUN Central America and PA Consulting (formerly Hagler Bailly). The program aims to assist five countries in the region (Guatemala, El Salvador, Honduras, Nicaragua and Panamá) set a course that integrates environmental and economic sustainability into their energy development agenda. With E&Co functioning as prime contractor, project and program manager, the program was designed to provide significant scope for linkage to other activities as well as the leveraging of resources for renewable energy financing in the region. Central to this thinking is ensuring sustainability of the proposed activities beyond the term of the program.

The program's initial structure envisioned eleven activities to be undertaken over an eighteen-month period in Central America. Eight of these activities initially focused specifically on enterprise development, next stage finance, capacity building, policy and regulatory reform in El Salvador, Honduras, Guatemala, Nicaragua and Panama. Three of the proposed activities involved the development of user-friendly manuals for off-grid energy deployment, greenhouse gas information for project entrepreneurs and a monitoring and evaluation manual for renewable energy projects. Specifically, the activities were outlined as follows:

**Task CA1: Rapid Assessment and Final Work Plan Development**

**Task CA3: Enterprise Development Services and Completion of Business Plans**

**Task CA4: Strengthening of Financial Institution Capacity**

**Task CA5: Capacity Building for the Finance Sector on Smaller-Scale and Rural Energy Applications**

**Task CA6: Organizing of Next-Stage Financing**

**Task CA7: Developing Regulatory and Policy Options for Renewable Energy Projects**

**Task CA8: Facilitation of Carbon Transactions**

**Task CA9: Support and Capacity Building of BUN CA**

**Task XC1: Off-Grid Services Manual**

**Task XC2: Preparation of a Carbon Manual for Entrepreneurs**

**Task XC3: Monitoring and Evaluation Manual**

**Task MME: Program Management, Monitoring and Evaluation**

As mentioned in FENERCA's first Quarterly Report submitted in September 2000, a twelfth "sub-task" has been added to this list of initially anticipated assignments. This new task is mainly a result of the larger than expected level interest for renewable energy projects identified through Task CA1, and the need to adequately address the local demand for business development tools. This Task, named

**FENERCA**  
**Second Quarterly Report – Biannual Report**

Task XC4 in FENERCA's first quarterly report, has been re-named to sub-task XC3a: Business Plan Development Manual for Renewable Energy Entrepreneurs, for accounting purposes.

In general terms FENERCA is expected to produce, among other results:

- A pipeline of renewable energy projects and enterprises;
- Improved capacity among NGOs, enterprises and financial institutions to perpetuate the project pipeline;
- Trade and business opportunities for U.S. and target country industries;
- Increased private sector and multilateral funding;
- Improved leverage and linkages among programs and organizations; and,
- Increased numbers and capacity of renewable energy professionals.

**SECTION 3: PERFORMANCE REPORT**

The present section shows summary tables that exhibit the main targets defined at program inception for each task, a brief description of the results achieved to date and the remaining work to be done as applicable. Every table is followed by a short description of the main activities undertaken as part of each task, providing actual details on the work developed to meet the deliverables anticipated as well as other not originally anticipated achievements fulfilled during the reporting period.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**Task CA1: Rapid Assessment and Final Work Plan Development**

<b>Expected Results Month 0 – Month 4</b>	<b>Results Achieved As of October 31<sup>st</sup>, 2000</b>	<b>Prevailing work As of October 31<sup>st</sup>, 2000</b>
<b>Preparation and distribution of surveys and other targeted outreach aimed at collecting information about stakeholder needs.</b>	<ul style="list-style-type: none"> <li>□ 3 surveys prepared for entrepreneurs, financial institutions, and NGOs and non-traditional financial institutions</li> <li>□ 537 surveys distributed, exceeding anticipated results (which targeted 400 surveys). <ul style="list-style-type: none"> <li>- 188 surveys to entrepreneurs</li> <li>- 142 to Fis</li> <li>- 207 to NGOs</li> </ul> </li> </ul>	None. Additional surveys to be distributed as needed, throughout implementation.
<b>25% response expected from surveys distributed</b>	22% response rate achieved (116 surveys were answered)	None
<b>Minimum of 20 projects identified</b>	□ 92 projects identified	None. On-going efforts to continue.
<b>Minimum of 25 stakeholders consulted</b>	<ul style="list-style-type: none"> <li>□ Five country-specific missions undertaken</li> <li>□ Meetings held with 80 different stakeholders (public and private organizations, NGOs and Fis).</li> </ul>	On-going consultations to take place throughout program implementation.
<b>Development and preparation of final work plan</b>	□ Final Work Plan completed August 2000.	None.
<b>Survey of policies and barriers that need attention</b>	□ Draft policy document completed August 2000.	None.
<b>Initial review of policies that need attention</b>	□ Initial interviews conducted in Quarter 1.	Specific work plan to be defined before end of 2000.
<b>Initial review of policies and barriers to be addressed in CA7</b>	□ Initial review completed in Quarter 1.	To be addressed in targeted work plan.
<b>Initial review and analysis of training gaps</b>	<ul style="list-style-type: none"> <li>□ Main training gaps identified through surveys.</li> <li>□ Analysis concluded in August 2000.</li> </ul>	None.
<b>Inventory of training gaps</b>	□ Inventory and database concluded in August 2000.	None.

Task CA1 was concluded on August 23<sup>rd</sup>, and as of October 31<sup>st</sup>, 2000 100% of its targeted work has been completed. A detailed description of the activities and main achievements materialized as part of this task were included in FENERCA's first quarterly report. The following list briefly summarizes the main results:

1. Preparation and distribution of 537 surveys: three different surveys (entrepreneurs, financial institutions, and NGOs and non-traditional financial institutions) were developed by the team

## FENERCA Second Quarterly Report – Biannual Report

with the objective of acquiring a broader perspective of the policy and market barriers, training needs and project opportunities in each of the five target countries.

2. Collection and analysis of information: once the surveys were prepared and distributed, the team invested substantial time to follow-up on initial contacts. This was achieved with in-country missions, cold calls and personal interviews with the targeted stakeholders. A program specific contact database was built, as well as one where results were tabulated. A detailed report on these activities was provided as part of FENERCA's first quarterly report, including an analysis of collected data.
3. As part of this effort, 92 projects were identified, and specific training needs were recognized.
4. FENERCA's final work plan was concluded in August. A detailed description of the specific targets was included in the first quarterly report.
5. A draft document of the main policies and barriers to be addressed during program implementation was developed and is currently under review.
6. As explained as part of Tasks CA4 and CA5 below, exceeding anticipated results, FENERCA's first training session for renewable energy entrepreneurs was undertaken in the month of July in Honduras. More than 30 stakeholders from the NGO, government and private sectors received training on "Financial Engineering for the Energy Sector".

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**Task CA3: Enterprise Development Services and Completion of Business Plans and Sub-Task CA3a: Business Plan development Manual for Energy Entrepreneurs**

<i>Expected Results Quarter 2 – Quarter 6 (and beyond)</i>	<i>Results Achieved As of October 31<sup>st</sup>, 2000</i>	<i>Prevailing work As of October 31<sup>st</sup>, 2000</i>
<b>200 enterprises contacted</b>	537 surveys distributed among different stakeholders and approximately 330 enterprises contacted.	None. Further contacts will be established as opportunities arise throughout program implementation.
<b>20 enterprises or projects supported</b>	3 projects have received enterprise development support.	Business plan development support will be provided to 15-20 projects. Additional support is being provided through the distribution of Task CA3a Manual. Further support is provided to on-going projects and activities not specifically targeted under Task CA3.
<b>15-20 business plans or proposals ready for next stage FI's</b>	3 draft business plans completed.	Total of 6 BP prepared by December 31 <sup>st</sup> 2000 10 BP by March 31 2001 20 BP by October 2001.
<b>Over US\$500,000 of enterprise development support provided (with CA6)</b>	US\$35,636 provided as of Oct. 2000 as part of CA3 and CA6.	Further EDS support to continue throughout program execution.
<b>US\$10 M project and enterprise value</b>	Currently, total value of priority list of projects is approximately US\$120,000,000 (Annex A).	Final value to be determined
<b>Minimum leverage ratio of 20:1</b>	To be determined	To be determined
<b>Minimum 2 enterprises in each country</b>	Please refer to Annex A. At least one (two in most cases) enterprise has been identified and selected to receive support in each of the 5 targeted countries.	Additional outreach is projected in Panama.
<b>Every effort to represent 5 RE technologies</b>	Please refer to Annex A. 4 of the five targeted technologies are represented in the list. No geothermal projects have been identified to date.	The team will be open to additional proposals in the geothermal sector.

CA3 activities begun in April and are still ongoing. Some of the work undertaken during the reporting period includes:

1. Targeted outreach to renewable energy entrepreneurs and other stakeholders throughout the five countries, including five country-specific missions. FENERCA staff conducted meetings with approximately 80 different organizations (including project entrepreneurs, energy organizations both public and private, NGOs, financial institutions and USAID local missions in El Salvador,

## FENERCA Second Quarterly Report – Biannual Report

Guatemala, Honduras, Nicaragua and Panama). The outcome exceeded anticipated results, as 92 projects at different stages of development were identified.

2. During the months of September and October, the team focused on narrowing this list to 40 projects. Of these, 20 have been selected to receive business plan preparation support in the short term.
3. The team has begun to provide the business plan development services to at least three projects in the list. These are:
  - Hidro Yojoa, a 600kW project in Honduras;
  - San Judas, a 30 MW project sponsor in Guatemala;
  - ADEMIPP, a local NGO with a PV-irrigation project in Panama.

Further assistance is being provided to other projects in the list, at different stages of development. The team has furnished the general guidelines for the development of business plans that were prepared as part of the training package for the Honduras' session on Financial Engineering, and supported the entrepreneurs with the documentation and financial analysis process.

### Task CA4: Strengthening of Financial Institution Capacity

<b><i>Expected Results Quarter 2-3 – Quarter 5</i></b>	<b><i>Results Achieved As of October 31<sup>st</sup>, 2000</i></b>	<b><i>Prevailing work As of October 31<sup>st</sup>, 2000</i></b>
<b>2 institutions trained per country</b>	2 FIs trained during Quarter 1 in Honduras (BANCATLAN and BCIE)	8 FIs to be trained in Panama, El Salvador, Nicaragua and Guatemala. 3 FIs to be trained by December 2000/January 2001.
<b>10 FIs embracing RE</b>	0	At least 3 business plans being prepared for submission to targeted FIs by January 2001.
<b>10 transactions under review by FIs</b>	6	At least 6 Business Plans to be submitted to FIs by March 2001.
<b>200 person hours of training (20p * 10 hrs)</b>	24 hours (2p * 12hrs) – Honduras July session	48 hours (6p * 8hrs) to be provided by January 2001.
<b>At least 5 training packages developed and distributed per country</b>	Primary training package for NGOs developed in July 2000. 30 packages distributed in Honduras.	30 new packages to be distributed by January 2001.

As mentioned in the first quarterly report and in Task CA1, FENERCA's first training session took place on July 12 and 13, 2000. The workshop was co-sponsored by FOCER, and endorsed by Honduras' Energy Secretariat and Ministry of Natural Resources. The meeting focused on strengthening stakeholders' capacity on business plan development and renewable energy project finance. The following results have been achieved within CA4 during the reporting period:

1. 2 local financial institutions (BANCATLAN and BCIE) were trained. Targeted training material was developed, translated and distributed. During the months of September and October the FENERCA team has focused on improving and expanding the training materials in preparation for upcoming training sessions.
2. As described in FENERCA's Final Work Plan, and to address budgetary restrictions, CA4 training sessions will take place "back to back" with CA5 activities.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

3. 2 additional training sessions for El Salvador and Guatemala have been scheduled for January 2001. FENERCA staff has focused during September and October on advancing the preparatory work for these meetings, including updating training materials, developing lists of participants and invitations, and arranging on-the-ground logistics.

**Task CA5: Capacity Building for the Finance Sector on Smaller-Scale and Rural Energy Applications**

<i><b>Expected Results Quarter 2-3 – Quarter 5</b></i>	<i><b>Results Achieved As of October 31<sup>st</sup>, 2000</b></i>	<i><b>Prevailing work As of October 31<sup>st</sup>, 2000</b></i>
<b>2 institutions trained per country</b>	18 institutions trained during Quarter 1 in Honduras	10 institutions to be trained by January 2001.
<b>10 institutions embracing RE</b>	24 RE institutions	To be determined
<b>200 person hours of capacity building (20 p * 10 hours)</b>	420 (35p* 12hrs)	240 (30 p * 8 hrs) additional by January 2001
<b>At least 5 training packages developed and distributed per country</b>	Primary training package for FIs developed in July 2000. 30 packages distributed in Honduras.	At least 30 additional packages distributed by January 2001.

The training session on Financial Engineering for the Energy Sector held in Honduras in July gathered more than 30 participants, out of which 18 were anticipated stakeholders initially targeted by Task CA5. As mentioned during the first quarterly report, other stakeholders including key state agencies that are playing a central role in the restructuring and planning of the countries' energy sector, have been included in the target group to be trained as part of CA5. Such agencies were also part of the training sessions held in Honduras. Other results included:

1. With the Honduras training session, FENERCA met anticipated results originally targeted to begin during the second and third quarters of program implementation.
2. Just as with CA4, targeted training material is currently being improved and expanded in preparation for upcoming training sessions.
3. 2 additional training sessions (El Salvador and Guatemala), "back to back" with CA4, scheduled for January 2001, currently under preparation. It is expected that BUN-CA's role in training and providing local support will substantially increase as program progresses.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**Task CA6: Organizing of Next-Stage Financing**

<i><b>Expected Results Quarter 2 – Quarter 6</b></i>	<i><b>Results Achieved As of October 31<sup>st</sup>, 2000</b></i>	<i><b>Prevailing work As of October 31<sup>st</sup>, 2000</b></i>
50 banks, non-bank specialized funds and capital market sources consulted	142 resources consulted	Additional contacts to be established throughout program implementation.
15-20 business plans reviewed by FIs	3 BPs under review	6 BPs under review by FIs by March 2001. 10-20 by October 2001.
US\$50 M of financial resources committed for RE initiatives	US\$230,000 committed from E&Co.	To be determined
50 MW of new RE installed in the CA region	0	To be determined

Specific work has been undertaken during the reporting period under Task CA6 both in terms of ensuring financial commitments for FENERCA projects under CA3, as well as with regards to other existing projects in the region that are advancing to subsequent stages of development. Specific achievements and activities launched include:

1. 5 projects (both FENERCA and non-FENERCA initiatives) have advanced and are currently being analyzed by E&Co for financing. The potential investment in these projects could exceed original commitment of US\$230,000 investment from E&Co.
2. Co-financing from local as well as international financial institutions (including the Renewable Energy and Energy Efficiency Fund, REEF and the IFC) are currently under analysis.

**Tack CA7: Developing Regulatory and Policy Options for Renewable Energy Projects**

<i><b>Expected Results Quarter 2 – Quarter 6</b></i>	<i><b>Results Achieved As of October 31<sup>st</sup>, 2000</b></i>	<i><b>Prevailing work As of October 31<sup>st</sup>, 2000</b></i>
Identification of key policies, barriers and opportunities that need attention in each target country	Draft document on policies and barriers concluded during Quarter 1. Review currently undergoing. 14 policies and barriers identified.	Work plan for task ready by end of November, 2000.
Proposed changes in laws, regulations, and policies to address barriers and opportunities	0	To be determined in Nov 2000
Recommendation on processes to implement changes	0	To be determined in Nov 2000
Strengthening of regulatory and policy analysis and intervention capacity of BUN-CA	0	To be determined in Nov 2000

During the reporting period, the team focused on producing a first draft of the main policy issues and barriers that need attention (attached to the first quarterly report). Specific stakeholders at the government level were consulted as part of this process.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

In September and October, the team reviewed this initial document in detail and has targeted further discussions to set up a Task-specific work plan by the end of 2000.

**Task CA8: Facilitation of Carbon Transactions**

<i>Expected Results Quarter 2 – Quarter 6</i>	<i>Results Achieved As of October 31<sup>st</sup>, 2000</i>	<i>Prevailing work As of October 31<sup>st</sup>, 2000</i>
5 model projects analyzed ready to be examined by buyers	5 projects identified in Honduras, Guatemala and El Salvador.	Targeted for year 2001
100,000 tons of carbon prepared for sale	Targeted for year 2001	Targeted for year 2001
US\$500,000 of carbon prepared for sale	Targeted for year 2001	Targeted for year 2001
Standardized worksheet to calculate carbon per project.	Informal package for developers in preparation. Review of existing approaches taking place	Targeted for year 2001
Increased BUN-CA capacity to implement carbon transactions	In-country reps. involved in information gathering process to outline baseline data for each of the 5 countries. BUN-CA directly involved in developing specific formula to calculate carbon in RE projects.	To be determined

While the first four months of program activity on Task CA8 focused on assessing the five targeted countries in terms of the demands and existing programs regarding carbon transactions, September and October were dedicated to establishing basic criteria for selecting the potential projects and narrowing the list of possible candidates. While most work under CA8 is expected to take place in 2001 when specific business plans have been developed and the carbon potential assessed in detail, the team has begun, with the assistance of the in-country representatives, to undertake the following work:

1. Information gathering on each country's GHG baselines.
2. Preparation of the necessary documentation to proceed with project sponsors (legal agreements).
3. Review of existing formulas to calculate carbon offsets in renewable energy projects.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**Task CA9: Support and Capacity Building for BUN-CA**

<i>Expected Results Quarter 1 – Quarter 6</i>	<i>Results Achieved As of October 31<sup>st</sup>, 2000</i>	<i>Prevailing work As of October 31<sup>st</sup>, 2000</i>
<b>5 NGOs actively working in each country instituted as part of BUN's network</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> 4 NGOs identified in El Salvador</li> <li><input type="checkbox"/> 2 NGOs identified in Guatemala</li> <li><input type="checkbox"/> 4 NGOs identified in Honduras</li> <li><input type="checkbox"/> 2 NGOs identified in Nicaragua</li> <li><input type="checkbox"/> 3 NGOs identified in Panama</li> </ul>	
<b>10 new professional contacts</b>	9 new contacts established	
<b>Essential training received by BUN-CA</b>	172 person hours of training received	
<b>Development of organizational business plan</b>	Advanced draft.	
<b>US\$54,000 of working capital to Strengthen BUN's capacity to continue activities and retain professionals</b>	US\$30,000 disbursed October 2000.	

It is worth noting that a significant number of activities initially targeted under FENERCA exclusively, are currently being developed under the co-sponsorship of FOCER, a regional UNDP/GEF Climate Change initiative managed by BUN-CA. FOCER is focusing on early stage project development, policy expansion work, and capacity building programs that are setting the foundation for FENERCA's activities.

BUN-CA's activities are described in detail in Annex B, which is the organization's Progress Report for the period June-October, 2000. The document was submitted by BUN-CA as part of its obligations under the Leader with Associates Cooperative Award with E&Co, and is a comprehensive account of its activities and results to date.

One of the major results of Task CA9 to date is the strengthening of BUN-CA's network on a regional basis. As a consequence, BUN-CA staff has already started to provide support to in-country representatives and local entrepreneurs in business plan preparation, increasing the local renewable energy deal flow in the region, and assisting policy makers to integrate renewable energy in the policy arena.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

Tasks XC1 (Off-Grid Services Manual), XC2 (Preparation of a Carbon Manual for Entrepreneurs), XC3 (Monitoring and Evaluation Manual) and XC3a (Business Plan Development Manual for Renewable Energy Entrepreneurs)

<i>Expected Results Quarter 1 – Quarter 5</i>	<i>Results Achieved As of October 31<sup>st</sup>, 2000</i>	<i>Prevailing work As of October 31<sup>st</sup>, 2000</i>
<b>XC1: Off-grid services manual</b> - Development of an off-grid manual - Translation of manual to Spanish - Distribution of 100 manuals	Outline drafted and circulated to E&Co and BUN-CA for review.	Final document drafted and translated. Initial distribution targeted for January 2001.
<b>XC2: Carbon manual</b> - Development of carbon manual - Translation of manual to Spanish - Dissemination of 25 manuals	Working with local partner (Fundación Solar) to agree on outline. Intro section being drafted.	Final manual completed after FCCC COP 6 in November 2000. Initial dissemination targeted for January 2001.
<b>XC3: M&amp;E manual</b> - Development of manual - Translation of manual to Spanish - Dissemination to 30 stakeholders	Draft document being finalized.	Final document drafted and translated. Dissemination targeted for December 2000/January 2001.

The following activities have been undertaken as part of Tasks XC1, XC2 and XC3:

1. A final draft of off-grid services manual has been advanced and is currently under review by FENERCA's team.
2. Draft carbon manual is currently under development with E&Co lead. As envisioned in the Work Plan and described in FENERCA's first quarterly report, potential local partners (including Fundación Solar and EIC) have been identified to avoid duplication of efforts in the carbon sector currently undergoing in the region.
3. Draft monitoring and evaluation manual under development by E&Co.
4. Target delivery-date for the three draft manuals: November 2000.
4. Task XC3a: Business Plan Development Manual for Energy Entrepreneurs: as previously explained, this manual has been developed in response to the larger than anticipated level of interest from renewable energy entrepreneurs identified as part of Task CA1. The team has finalized a draft manual that is currently being reviewed and translated for widespread distribution among interested entrepreneurs (including those in the first CA3 project list) and as part of CA4 and CA5 training sessions in the upcoming months.

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**Task MME: Program Management, Monitoring and Evaluation**

<i>Expected Results Quarter 1 and Quarter 6</i>	<i>Results Achieved As of October 31<sup>st</sup>, 2000</i>	<i>Prevailing work As of October 31<sup>st</sup>, 2000</i>
<b>Development of a project monitoring and evaluation tool</b>	Tool developed in Quarter 1 2000.	None. Further reviews and improvements to be addressed as needed.
<b>Tracking and analysis of program costs</b>	Specific financial system and program specific budgets developed in Quarter 1.	Monthly and quarterly reports to take place throughout implementation.
<b>Quarterly Progress Reports and course corrections</b>	Second Quarterly report submitted by Task Managers on October 31.	Third quarterly report due in February 2001. Annual report to March 31, 2001, due in April 2001.
<b>Monitoring of tasks completed on time and within budget</b>	Completion ratios instituted among Task Managers as part of MME reports. Management Team/Steering Committee reviewing.	Ongoing monitoring taking place.
<b>Monitoring level of expenses /dollar amounts</b>	Under analysis from E&Co's (see comments below under budget section)	Ongoing
<b>Achievement of activity progress indicators and expected results.</b>	On target	Ongoing

Work undertaken during the reporting period within Task MME included:

1. Final Work Plan completed as originally anticipated, including specific targets for all program-related tasks.
2. Establishment of a Management, Monitoring and Evaluation mechanism, including task specific reporting tools, progress indicators and financial performance tracking system.
3. Organizational/administrative and operational activities necessary for program implementation readied. BUN-CA's and in-country representatives' contracts and budgets finalized, PA Consulting's sub-contract under review by USAID, including targeted budget.
4. First coordination session of FENERCA team was held on July 14 in San Salvador, El Salvador. In-country representatives and management team gathered to commence FENERCA and ensure proper support.
5. Second coordination meeting scheduled for December 2000/January 2001. This session is projected to include a training sessions for in-country and BUN-CA staff.

**Other achievements not initially anticipated:**

As described in FENERCA's first quarterly report, the following promotional material not initially anticipated has been produced:

## FENERCA Second Quarterly Report – Biannual Report

1. FENERCA website: which has been in use since the beginning of July 2000. The site includes the surveys targeted under CA1, contact information for the in-country representatives and the management team, and FENERCA's main goals and anticipated results. The website can be found at [www.energyhouse.com/spanish/fenerca](http://www.energyhouse.com/spanish/fenerca).
2. FENERCA brochure: 1000 pamphlets were printed in September 2000. They includes specific contact information and general program details. The document is currently being distributed amongst all interested stakeholders in the targeted countries. A copy is included in Annex C.

### Budgetary issues:

Overall, during the first six months of operation, the FENERCA team has been able to advance all the anticipated work within the projected budget, both in terms of staff time and also with regards to expenses. As shown in the financial/performance report included in Annex D, for the six-month period covered in this report, altogether the program met the targets in terms of actual dollars spent.

However, as highlighted in FENERCA's first quarterly report and as the work with CA1 was fully concluded, the team was able to determine the specific needs for each task both in terms of level of effort as well as with regards to expenses. Based on the targets within the final work plan and the work advanced to date, and in order to address more realistic prices than originally utilized when the program was submitted for USAID consideration in 1998, the management team has made some budgetary reallocations that will enable FENERCA to achieve its anticipated results. These reallocations are **for the first year of program implementation** and are as follows:

- *Task CA1:*
  - a. During the first six months of program implementation, a higher than anticipated involvement of E&Co in program launching activities was required. This demanded a greater than expected handholding that resulted in a US\$2,854.56 overrun. In order to address this overrun, an equivalent amount of US\$2,854.56 has been deducted from E&Co's forecasted budget for Task CA3. The management team expects to achieve the anticipated results within Task CA3 as anticipated, within this new forecasted budget.
  - b. In addition to this budgetary modification, the team also reallocated US\$5,000 originally budgeted for PA Consulting to Task CA1. This was a result of a later than anticipated effective date for PA Consulting's sub-contract. The contract is currently under review by USAID, but as a result, the organization was not involved in Task CA1 as originally anticipated. Thus, its original budget allocation for CA1 has been assigned to other tasks (specifically to Tasks CA7, CA8 and XC1).
  - c. As a result of a sooner involvement of BUN-CA in activities regarding Tasks CA3, CA4 and CA5, the organization had a under-run of US\$7,155 as part of CA1. This under-run has been reallocated to BUN-CA's budget for Task CA3.
- *Tasks CA4 and CA5:* as highlighted in PA Consulting's sub-contract currently under review by USAID staff, a reallocation of US\$5,000 initially budgeted for Task CA4 and US\$5,000 for Task CA5 have been reallocated to the organization for Tasks CA7, CA8 and XC1. This reallocation has been made in order to build on PA Consulting's greater experience in the policy sector.
- *Task CA7:* originally Task CA7 was designed as an activity that would almost exclusively involve BUN-CA and PA Consulting staff. Due to a later than expected involvement from PA Consulting in the program, E&Co has spent additional time working with BUN-CA, exceeding its original budget for CA7 by US\$374.38. Now that PA Consulting's sub-contract is being finalized, the management team expects E&Co's role in this task to substantially diminish. However, a supervisory role from E&Co will be needed and to make it possible, the

## FENERCA Second Quarterly Report – Biannual Report

management team has made a US\$5,000 reallocation of funds from E&Co's original budget for Task XC3 to Task CA7.

- *Task CA8*: a US\$2,500 has been assigned to PA Consulting to build on its experience in carbon transactions and assist E&Co's work in this field. This amount has been reallocated from PA Consulting's original budget.
- *Task XC1*: a reallocation of US\$16,000 for PA Consulting has been made to Task XC1. The team expects PA Consulting to take the lead in this task's development and therefore has increased its budget share in the task's budget accordingly.
- *Task XC2*: according to FENERCA's first quarterly report, numerous initiatives in the carbon sector are currently being undertaken in the targeted countries. As a result, and in order to avoid duplication of efforts, the management team has decided to advance with Task XC2 as targeted but building on existing efforts in the different countries. At least during the first year of program implementation, this work is expected to be lead exclusively by E&Co. As a result, PA Consulting's original XC2 budget through March 31, 2001 has been reallocated to Tasks Ca7, Ca8 and XC1.
- *Task XC3*:
  - a. As explained in task CA7 above, as the work within Task XC3 has advanced within a lower than anticipated budget, E&Co has been able to liberate an amount of US\$5,000 from Task XC3. This amount has been reallocated to Task CA7 where E&Co is expected to play a supervisory role.
  - B. As highlighted in FENERCA's first quarterly report, in order to address a larger than expected level of interest displayed by renewable energy project sponsors during Task CA1, the team agreed to develop a new task. This is Task XC3a: Business Plan Development for Energy Entrepreneurs, to be distributed amongst interested stakeholders within the region. This task has been advanced during the months of September and October. The manual builds on previous work undertaken by E&Co in this field. However, in order to develop and disseminate this manual according to the specific needs of the targeted FENERCA countries, the team is expecting utilize approximately US\$10,000 from E&Co's original budget to Task XC3, to Task XC3a.
- *Task MME*: as explained above, PA Consulting's share of Task MME has been reduced, as its involvement in Task XC1 did not take place. The organization's original budget of US\$5,000 has been reallocated to Tasks CA7, CA8 and XC1.

The team expects to conclude the originally anticipated tasks through March 31, 2001 within this modified budget, as targeted.

As highlighted in FENERCA's first quarterly report, as the program's final work plan was completed, the need to increase the budget for travel and expenses has also become clear. As emphasized in the first quarterly report, the management team is being particularly cautious with regards to all FENERCA expenses and is expected to achieve the anticipated results targeted for the first year of operations within the expected budget. However, as the need arises, management expects to build on USAID's Contract Agreement Officer positive response to proceed in this manner, and dully notify USAID before this change takes place.

#### **4. MAIN CONCLUSIONS AND RECOMMENDATIONS ON COURSE CORRECTION**

As highlighted in this report as well as in FENERCA's first quarterly report, the team has been able to advance the anticipated work on time and within the targeted budget. The first quarterly report

## FENERCA Second Quarterly Report – Biannual Report

highlighted those areas in which the management team recommended possible enhancements. The following paragraphs present a brief overview of the progress achieved in those specific areas and highlights new fields for improvement.

### *Task CA1: Rapid Assessment and Final Work Plan Development*

Even though Task CA1 has now been fully completed, two areas of course correction were identified in the first quarterly report:

1. *Signature of Hagler Bailly (PA Consulting sub-contract):* PA Consulting's subcontract was drafted and discussed and a final document submitted to USAID for approval. Final signature is expected before the end of November
2. *Inventory of policies and barriers that need attention:* the team has conducted additional work and held further discussions on the approach to be followed and specifically on the need to guarantee specific results for targeted renewable energy projects and enterprises. This work is presently being undertaken as part of CA7, where the team is targeting specific key policies and opportunities/recommendations to address the different barriers. BUN-CA, in close coordination with PA Consulting is currently advancing this work. A Task specific work plan is to be finalized during the month of November.

### *Task CA7: Developing Regulatory and Policy Options for Renewable Energy Projects*

Further improvements: as Task CA1 has been completed, and the draft inventory of policies and barriers developed, it is imperative for the team to advance a specific work plan for Task CA7 and begin its implementation on-the ground. The target for the completion of the work plan is the end of November 2000, and the initiation of activities in each of the targeted countries will begin in January 2001.

### *Task C9: Support and Capacity Building of BUN-CA*

Further training required: The team has scheduled a training sessions for in-country representatives for January 2001. The goal is to bring the in-country representatives to the CA4 and CA5 training sessions, so that in addition to the training, they can interact with local NGOs and financial institutions. The objective is to follow this two-day training with a brief targeted in-country session (one morning) to address the representatives' specific questions and intensify their business development and financial engineering skills.

### *Tasks XC1: Off-Grid Services Manual, XC2: Preparation of Carbon Manual for Entrepreneurs and XC3: Monitoring and Evaluation (M&E) Manual.*

Manuals concluded before training sessions: even though the completion of the manuals has not taken place as anticipated, work is currently undergoing to ensure that they are finalized before the targeted training sessions take place in December 2000/January 2001. Substantial progress has been achieved however, with regards to Task XC1: Off-Grid Services Manual. An advanced draft is currently under review and the team expects that at least this manual will be completed in full by the end of the year 2000.

Further improvements: the three manuals must be concluded before the training sessions under CA4 and CA5 take place. The work to be concluded includes translation and possibly editing as well. Manuals should be completed by the end of the year 2000.

### *Task MME: Program Management, Monitoring and Evaluation*

Operational: MME reports were reviewed and an additional descriptive section included that will enable the management team to better track the specific work advanced during the reporting period. A sample report is included in Annex F. Task reports were completed and submitted to the management team at the end of October. The MME process has completed a full round of operations.

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Second Quarterly Report – Biannual Report  
November, 2000

**FENERCA**  
**Second Quarterly Report – Biannual Report**

**ANNEXES**

- Annex A: list of projects under CA3.
- Annex B: BUN-CA biannual report.
- Annex C: FENERCA brochure.
- Annex D: sample financial/performance report.
- Annex E: sample MME report.

**ANNEX A:  
CA 3 Project Pipeline**

# FENERCA - CA3 Project Pipeline

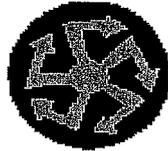
#	Country	Project	Technology	Description	Stage	Responsible	Project Manager	Timing	Estimated Total Investment
BP# 1	Honduras	Hidro Yojoa	Hydro	600 kW plant	Pre-investment	E&Co	Sergio	Oct-31-00	\$785,000
BP# 2	Nicaragua	Bronzeoak-Sagcomsa	Biomass	630 kW biomass	Pre-investment	E&Co	Sergio	Oct-31-00	\$1,200,000
BP# 3	Guatemala	San Judas	Hydro	30 MW plant	Pre-investment	E&Co	Lorna	Oct-31-00	\$50,000,000
BP# 4	El Salvador	Tecnosolar	PV	Rural electrification	Feasibility	E&Co	Sergio	Oct-31-00	\$1,000,000
BP# 5	Panama	ADEMIPP	PV	Irrigation	Feasibility	BUN	Leonel	Oct-31-00	\$500,000
BP# 6	Honduras	Snow Mt./Rio Lindo	Hydro	250 kW / 3 MW plant	Investment	E&Co	Sergio	Jan-31-01	\$5,000,000
BP# 7	Honduras	SEDES	Hydro	nano turbines	Feasibility	BUN	Jose Ma.	Jan-31-01	\$400,000
BP# 8	Guatemala	San Marcos	Hydro/Wind	Municipal Utility	Feasibility	BUN	Joost	Jan-31-01	\$4,000,000
BP# 9	Nicaragua	Tecnosol	PV/Hydro	Equity investment	Feasibility	E&Co	Sergio	Jan-31-01	\$750,000
BP# 10	Honduras	Tres Valles	Biomass	Bagasse co-gen.	Feasibility	BUN	Joost	Jan-31-01	\$10,000,000
BP# 11	Guatemala	Dintersa	PV	Rural electrification	Feasibility	E&Co	Sergio	Apr-30-01	\$500,000
BP# 12	Honduras	Atlantis	Hydro	12 MW plant	Pre-investment	E&Co	Sergio	Apr-30-01	\$2,500,000
BP# 13	Honduras	Tres Valles	Hydro	13 MW plant	Pre-investment	E&Co	Sergio	Apr-30-01	\$20,000,000
BP# 14	Honduras	Riachuelo	Hydro	700 kW plant	Feasibility	BUN	Joost	Apr-30-01	\$1,200,000
BP# 15	Honduras	Cenit	Hydro	900 kW plant	Investment	E&Co	Sergio	Apr-30-01	\$1,500,000
BP# 16	Panama	ANCON	PV	Solar Home Systems	Pre-feasibility	BUN	Joost	Apr-30-01	\$500,000
BP# 17	Nicaragua	Hidro/Matagalpa	Hydro	nano turbines	Feasibility	BUN	Joost	Apr-30-01	\$400,000
BP# 18	Nicaragua	Funproteca	PV	Solar stoves	Feasibility	BUN	Joost	Apr-30-01	\$500,000
BP# 19	El Salvador	La Magdalena	Biomass	Bagasse co-gen.	Pre-investment	BUN	Joost	Apr-30-01	\$8,000,000
BP# 20	El Salvador	EEN	Biomass	Bagasse co-gen.	Pre-investment	E&Co	Lorna	Apr-30-01	\$12,000,000
<b>CA6 and CA8 Projects</b>									
BP# 21	Guatemala	Selmeca/Turingia	Hydro	30 MW plant	Investment	E&Co		Apr-30-01	\$50,000,000
BP# 22	Guatemala	Rio Hondo	Hydro	30 MW plant	Investment	E&Co		Apr-30-01	\$60,000,000
BP# 23	Guatemala	Geoteca	Geothermal	14 MW plant	Pre-investment	E&Co		Apr-30-01	\$30,000,000
BP# 24	Guatemala	Papeles Elaborados	Hydro	8 MW plant	Investment	E&Co		Apr-30-01	\$12,000,000
BP# 25	Honduras	Bamboo	Biomass	50 MW plant	Pre-investment	E&Co		Apr-30-01	\$70,000,000
BP# 26	Nicaragua	Hydropantasma	Hydro	24 MW plant	Investment	E&Co		Apr-30-01	\$40,000,000
BP# 27	Nicaragua	Ventus	Wind	30 MW plant	Pre-investment	E&Co		Apr-30-01	\$40,000,000
BP# 28	Nicaragua	El Hoyo	Geothermal	50 MW plant	Pre-investment	E&Co		Apr-30-01	\$90,000,000

**ANNEX B:  
BUN-CA Biannual  
Report**

# PROGRESS REPORT

*Financiamiento de Empresas Energéticas  
en Centro América*  
**(FENERCA)**

Prepared by



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**BUN-CA**

**June - October, 2000**

## INTRODUCTION

The present Report contains the activities undertaken by BUN-CA, in agreement with the contract with E&Co, signed on June, 2000, for the execution of the Initiative *Financiamiento de Empresas Energéticas en Centro América (FENERCA)*.

The objective of the contract is to obtain the collaboration of the Regional Office for Central America of the Biomass User Network (BUN-CA), for the implementation of the planned activities, in which BUN-CA is directly responsible for two tasks: CA5 and CA7. The first task relates to capacity building for the finance sector on smaller-scale and rural energy applications, and the second to developing regulatory and policy options for renewable energy (RE) projects.

During the first months of project execution, BUN-CA concentrated its efforts on achieving the initial outputs of the different planned activities within FENERCA: strengthening its institutional capacity at regional level, establishing initial contacts with projects of potential interest to the Initiative, developing training workshops in the region, disseminating information on FENERCA in the 5 countries, and maintaining close communication with E&Co, both with the Regional Office (E&Co-LAC), and the Head Office in Bloomfield, New Jersey.

In general, the working sessions with E&Co, as well as the participation of the representatives of BUN-CA in each of the countries, have been important factors in the success during the first semester of the project, obtaining the objectives according to the work plan.

In the implementation of its activities, BUN-CA could rely on the financial and technical support of the Regional Initiative '*The Creation and Strengthening of the Capacity for Sustainable Renewable Energy Development in Central America*' (FOCER), executed by BUN-CA with funds from UNDP/GEF. FOCER has supported the capacity building activities that have been implemented so far, travels to each of the countries by several BUN-CA staff, and additional contracts with the national representatives. Furthermore, FOCER works on the removing of barriers that limit the development of renewable energy projects, especially technical, institutional and informational barriers, and provides financial and technical support to RE projects in the region. The counterpart contribution of FOCER is US\$ 725,000 for a period of 24 months.

FOCER has the objective to remove the barriers that limit the development of small-scale renewable energy in the region, by supporting project developers, organizing seminars and training workshops, and assisting governments in the development of appropriate policies and regulations for renewable energy.

BUN-CA has assigned a Project Management Unit for the execution of the contract with E&Co, consisting of:

- José Maria Blanco Rodriguez, Regional Director
- Gilbert Masis, Director of Operations
- Leonel Umaña, Project Officer Renewable Energy
- Joost Siteur, Project Officer Renewable Energy

In addition, BUN-CA has contracted the following local representatives in the 5 project countries:

Guatemala	Jorge Luis Galindo
Nicaragua	Maria Engracia de Trinidad
El Salvador	Ana Maria Gonzalez
Panama	Orlando Aguilar
Honduras	Patricia Panting, until August, 2000 and Ana Cristina Zepeda, starting from November 01, 2000

All representatives present excellent qualifications and experience either in the non-governmental, financial or private sectors, which encouraged BUN-CA to select them as candidates for its staff expansion in the targeted countries and become part of its network in the region. Even though not all have specific experience in renewable energy financing, FENERCA has foreseen to provide the necessary training at this level to strengthen their capacity in this field. The engagement of the in-country representatives has ensured presence at the country level and extended the reach of the work currently undertaken in Costa Rica by the management team. This is considered a first significant achievement under Task CA9, which envisioned expanding BUN-CA's network and anticipated at least one NGO actively working for the organization in each of the five countries covered by the program.

In the following, a detailed overview is given of the activities implemented by BUN-CA for each the project tasks.

### ***1. Task CA1: Rapid Assessment and Final Work Plan Development***

- 1.a. To facilitate the strengthening of a regional network of stakeholders in renewable energy, and the future work with FENERCA, BUN-CA updated its contact lists for the 5 countries, totaling about 600 records. These contacts include project developers, NGOs, service companies, consultants and financial institutions.
- 1.b. A total of 537 surveys were distributed during a two-month period, far exceeding the anticipated expected result that targeted 400 surveys distributed within the region. A six-week waiting and follow-up period was established for the receipt of responses. The term for the receipt of responses ended on July 15, 2000. At that time, a total of 116 responses had been received, which represent nearly 29% of the originally anticipated sample size (400). The total response constitutes a 22% response rate over the increased number of surveys sent (537).

**Table 1**  
*Response per country on the surveys of FENERCA*

Country	Responses	Sent	% per country	% of total response
El Salvador	40	132	30%	34%
Nicaragua	31	138	22%	27%
Honduras	19	114	17%	16%
Guatemala	14	55	25%	12%
Panama	12	98	12%	10%
<b>Total</b>	<b>116</b>	<b>537</b>	<b>22%</b>	<b>100%</b>

1.c. The existing links and project pipelines of E&Co and BUN-CA yielded an initial list of 23 projects, which on a first approximation appeared to meet the requirements of the Initiative for support in the completion of business plans. In addition to this effort, an additional list of 59 projects was identified. Table 2 shows the results of the projects presented and pre-selected for receiving support from FENERCA.

**Table 2**  
*Number of projects presented by the survey*

Country	Total	Pre-selected
GUATEMALA	7	4
HONDURAS	17	9
EL SALVADOR	33	5
NICARAGUA	26	4
PANAMA	9	1
<b>TOTAL</b>	<b>92</b>	<b>23</b>

1.d. An initial work plan was elaborated for FENERCA, which is being implemented by all parties involved.

1.e. Letters of reply were sent to those who sent in a questionnaire and to those projects that were approved. These letters were sent by E&Co-LAC (in Annexes 3, 4 and 5 the final versions of these letters can be found).

1.f. Meetings were held with USAID's local missions in the five countries to introduce FENERCA and discuss their interest and involvement in the Initiative. Upon becoming effective, the team sent introductory letters presenting FENERCA and anticipating country-missions during the first months of operation. As projected, the team then held the following meetings:

- July 10<sup>th</sup>: USAID Mission-Honduras, Mr. Peter Hearne, Environmental Officer.
- July 13<sup>th</sup>: USAID Mission-El Salvador Ing. Flor de Rivera and Ms. Heidi Gomez, US Embassy, Commercial Attaché

- August 10<sup>th</sup>: USAID Mission-Guatemala: Mr. George Carner, Director, Marta Velazquez, Director of Regional Trade Office and Brian Rudert, Income and Natural Resources.
- August 4<sup>th</sup>: USAID Mission-Nicaragua: Dr. Efrain Laureano, Reconstruction Program, Mission Economist, supervisor of energy projects.
- August 22<sup>nd</sup>: USAID Mission-Panama: Mr. Lars Klassen, Director and Lee Russell, Development Sustainable Director
- October 23<sup>rd</sup>: USAID Mission-Panama: Mr. Half Cardwell.

1.g. Meetings were held with national authorities in each of the countries, like: SERNA in Honduras, CNE in Nicaragua, CNPE in Panama, FINET in El Salvador, and the Ministry of Energy in Guatemala.

1.h. Meetings were held with project developers to discuss activities of FENERCA and in particular FENERCA's support to these project developers, for example:

- Tres Valles, CECECAPA, SEDES and Hidroyoja in Honduras
- Proleña in Nicaragua
- Municipality of San Marcos and NRECA in Guatemala
- ADEMIPP, ANCON, Edwari Cundra, Afotur in Panama
- Confederación Nacional Campesina (CNC) and Tecnosolar in El Salvador

## 2. *Task CA3: Enterprise Development Services and Completion of Business Plans*

2.a. Initial contacts were established with the enterprises selected to receive support from FENERCA for the development of business plans, as shown in the following table.

**Table 3**  
***Projects selected by FENERCA***  
***to receive support in Business Plan development***

Country	Project	Technology	Responsibility
Guatemala	San Judas	Hydro	E&Co
Guatemala	El Rodeo	Hydro/Wind	BUN-CA
Guatemala	Dintersa	PV	E&Co
Honduras	Hidro Yojoa	Hydro	E&Co
Honduras	Snow Mt./Rio Lindo	Hydro	E&Co
Honduras	SEDES	Hydro	BUN-CA
Honduras	Atlantis	Hydro	E&Co
Honduras	Tres Valles	Hydro	E&Co
Honduras	Riachuelo	Hydro	BUN-CA
Honduras	Cenit	Hydro	E&Co
Honduras	Tres Valles	Biomass	BUN-CA
Panama	ADEMIPP	PV	BUN-CA

Panama	ANCON	PV	BUN-CA
Nicaragua	Bronzeoak-Sagcomsa	Biomass	E&Co
Nicaragua	Tecnosol	PV/Hydro	E&Co
Nicaragua	Hidro Matagalpa	Hydro	BUN-CA
Nicaragua	Funproteca	PV	BUN-CA
El Salvador	Tecnosolar	PV	E&Co
El Salvador	La Magdalena	Biomass	BUN-CA
El Salvador	EEN	Biomass	E&Co

- 2.b. BUN-CA had the responsibility of the development of a business plan during the first phase (5 projects). Presently, an advanced draft is available for the organization “*Asociación para el Desarrollo del Micro y Pequeño Productor (ADEMIPP)*” in Panama, for the development of a program that promotes the use of PV for water pumping and irrigation. The business plan has been developed jointly with ADEMIPP, in order to build up their capacity to prepare this type of documents. It is expected that in the coming months the project can be presented to potential financiers, including E&Co.
- 2.c. On 6 September 2000, an internal working session was held in E&Co-LAC on the development of business plans. Participants of this session were Sergio Guillén and Lorna Li of E&Co-LAC, and Leonel Umaña and Joost Siteur of BUN-CA.
- 2.d. As part of the support of FOCER to 21 local projects and the alliance with FENERCA, BUN-CA will assist the project developers in obtaining financing for the implementation of these projects, through the development of business plans (see Table 6). The alliance between BUN-CA, E&Co, FENERCA and FOCER, provides good perspectives for the development of innovative financial mechanisms.
- 2.e. In Panama additional projects were identified that could be supported by FENERCA, like Edwari Cundra, Afotur, Capuri, and the PV project of Ancon. FENERCA’s management team is considering one of these projects, in order to know the possibilities of including an additional project in Panama.

### 3. *Task CA4: Strengthening of Financial Institution Capacity*

- 3.a. The first workshop on Financial Engineering was organized in Tegucigalpa, Honduras, Julio 12 and 13, 2000, with the participation of 35 professionals from 18 organizations, of which two were commercial banks.

**Table 4**  
***Participating Banks in the Workshop on Financial Engineering in Honduras***

- |   |
|---|
| <ol style="list-style-type: none"><li>1. Central American Bank of Economic Integration (CABEI)</li><li>2. Banco Atlántida of Honduras</li></ol> |
|---|

3.b. BUN-CA reviewed the Spanish and English versions of the Business Plan manual (Toolkit), which are materials for the training workshops. Also the materials used in the Honduras workshop were reviewed by BUN-CA.

3.c. Initial contacts and arrangements were made for the organization of two training workshops in Guatemala and El Salvador, to be held in December 2000.

3.d. For the organization of these workshops, it is necessary to obtain the support from regional financial institutions, e.g. the Central American Bank of Economic Integration. For this purpose, initial contacts were established with the Headquarters of CABEI in Honduras, as well as with CABEI offices in each of the 5 countries, in order to present FENERCA and solicit their support.

**4. *Task CA5: Capacity Building for the Finance Sector on Smaller-Scale and Rural Energy Applications***

4.a. The Government of Honduras, through the Secretary of Natural Resources and Environment (SERNA), requested the support for the organization of a training seminar on financial engineering for renewable energy projects. This training was held on 11-12 July 2000, co-organized by FOCER and FENERCA, with 35 participants from 18 organizations, including NGOs, national authorities and developers of renewable energy projects. The workshop comprised a total of 420 man-hours of training, exceeding the initial objectives for this country. The workshop provided the opportunity to study the new privatization law of the energy sector, which is a result for Task CA7. The Table 5 presents a list of the participating organizations.

**Table 5**  
***Non-Financing Organizations Participating in the Workshop on Financial Engineering in Honduras***

- |   |
|---|
| <p>Private Developers:</p> <ol style="list-style-type: none"><li>1. ELCOSA</li><li>2. INVERSIONES CERNA</li><li>3. HIDROYOJOA</li></ol> |
|---|

4. ENERGISA

National Authorities or Governments Organizations:

5. SERNA
6. DGE
7. CNE
8. ENEE
9. MUNICIPALIDAD DE UTILA
10. CPE

NGOs:

11. CENIT
12. ASEM
13. AHPPEH
14. ADESOL
15. UICH
16. SOLUZ
17. COMERCIAL
18. OICH

4.b.A group evaluation was held for this Workshop, based on the outputs of CA1 and the objectives for Task CA5, reaching the following conclusions:

- It would be better to organize the workshops in 2 separate sessions, one for banks and one for NGOs and project developers.
- The need for another training workshop in Honduras, specifically for the banking sector, was evident.
- It is necessary to look for support from regional institutions, especially from the financial sector in order to achieve a higher participation of banks.

4.c.The proceedings of the Training Workshop on Financial Engineering were prepared, which include the methodology applied, the participants, the working sessions and the main conclusions (a copy is included in Annex 1).

4.d.Logistic arrangements were initiated for the upcoming training workshops, to be held in El Salvador and Guatemala in the week of 4 to 8 December, 2000.

4.e.There was continuous cooperation with the Project 'The Creation and Strengthening of the Capacity for Sustainable Renewable Energy Development in Central America' (FOCER), implemented by BUN-CA with funds from PNUD/GEF, especially in the support for travels in the regions, co-organization of the training workshop in Honduras on 11 and 12 July, financial support to the projects as shown in Table 6. In section 9 of this report, detailed information can be found on the travels made during this period, including the contribution of FOCER.

**Table 6**  
***Projects of FENERCA that receive additional support from FOCER***

Country	PROJECT	STATUS	CONTRIBUTION
Honduras	Hydroelectric El Riachuelo (600 kW)	Feasibility	\$ 15,000
Honduras	Hydroelectric Yojoa (630 kW)	Feasibility	\$ 18,000
Honduras	Hydroelectric SEDES S.A. (nano-hydro)	Demonstrative	\$ 5,000
Honduras	Co-generation Azucarera Tres Valles (8 MW)	Feasibility	\$ 10,000
Guatemala	Municipal Electricity Company of San Marcos (NRECA)	Feasibility	\$ 19,000
El Salvador	Co-generation with biomass Ingenio La Magdalena	Feasibility	\$ 15,000
Panama	Photovoltaic ADEMIPP	Feasibility	\$ 6,000
Panama	Photovoltaic ANCON	Demonstrative	\$ 8,000

**5. *Developing Regulatory and Policy Options for Renewable Energy Projects (Task CA7)***

5.a. From the information gathered in the surveys (Task CA1), CA7 prepared a preliminary list of policy issues relevant to renewable energy projects. This new piece of information complemented the original findings identified in the preparation of the first draft of the FENERCA Document under CA7 titled “*Developing Regulatory and Policy Options for Renewable Energy Projects in Central America*”.

5.b. Meetings were held in all five countries with national authorities involved in the energy sector to introduce the Initiative. It is evident that due to the fact that most of the countries are consolidating the operation of the wholesale power market, small-scale renewable energy projects could find an interesting niche in the energy sector if their role were strongly supported by the political decision levels.

5.c. FENERCA was presented to political authorities of five countries in Central America. These include:

- Guatemala: Dr. Juan de Dios de Calle, General Director of the National Commission on Environment (CONAMA).
- Honduras: Ing. Xiomara de Caballero, Minister, of the National Secretary of Natural Resources and Energy (SERNA).
- El Salvador: Dr. Ana Maria Majano, Minister, of the Ministry of Natural Resources and Environment (MARN).
- Panama: Lic. Gonzalo Menéndez, Deputy Director of the National Authority of Environment (ANAM), and Ing. Mixael Mijanixianos, Director of the National Energy Commission. (CNPE)

- Nicaragua: Ing. Luis Velasquez, General Director of the National Energy Commission (CNE).

5.d.FENERCA evaluated the national legislations in Honduras, Nicaragua and Guatemala with the aim to find gaps that stall the market development of small-scale renewable energy projects.

5.e.As part of the initial assessment undertaken during Task CA1, FENERCA was able to learn that numerous programs from the international cooperation and substantial financial resources are currently being invested in the target countries to overcome the barriers and develop regulatory options for renewable energy projects and rural electrification. This is the case for instance, of the ongoing ERAC project, funded by the European Union in order to assess the legal framework of the electricity sector in Central American countries, and the FOCER initiative, which includes the support to the local Governments to overcome the policy barriers of renewable energy projects. Because FENERCA is planning to work “hand in hand” with these and other initiatives in order to ensure adequate results, the Initiative will achieve the anticipated results following a different approach than the one originally anticipated.

5.f. Through electronic working sessions with Hagler Bailly, two reviews have been carried out of the preparatory Document “*Developing Regulatory and Policy Options for Renewable Energy Projects*”. The aim of this document is to influence the overall national policies towards small-scale renewable projects during the execution of FENERCA avoiding proposals to change the existing legal frameworks in the short term.

5.g.On July 28<sup>th</sup> 2000, BUN-CA organized a working meeting in Costa Rica between representatives of BUN-CA, E&CO Bloomfield, and E&Co-LAC and representatives from Fundación Solar and Winrock International, Oscar Coto and John Ryan respectively. The objective was to discuss current actions on renewable energy policy in Central America and coordinate efforts of both initiatives funded by USAID. A joint effort has been proposed by FENERCA to Fundación Solar with regards to preparation of the documents on carbon transactions and policy issues.

5.h.A second working draft of the Document “*Developing Regulatory and Policy Options for Renewable Energy Projects*” was prepared considering the outcomes mentioned above. A total of 14 barriers that prevail the takeoff of renewable energy projects In Central America has been identified. These are listed below per country.

***El Salvador:***

1. Subsidies exist for fossil-fueled generation, and no clear mechanisms to address competition or antitrust issues exist. Meetings with key policy-makers suggest that there is no coherent channel for influencing policy, and that particularly in the wholesale market context, such intervention may not yield any substantive results in the short-term.
2. On the other hand, while there are no clear rural electrification policies (other than using it as a political campaigning issue), a number of funds and social development NGOs are addressing the dissemination of PV systems. In this area, substantial benefit could come from

35

defining a coherent policy for subsidies to off-grid systems for residential electrification, regarding the commercial viability of off-grid energy service enterprises.

***Guatemala:***

1. The context for projects under 10 MW needs to be analyzed and the best alternatives for structuring these projects (bundling to reach 10 MW, targeting service to newly electrified areas not interconnected to the national grid, or lobbying to change the wholesale market provisions) need to be outlined.
2. The role of off-grid technologies in rural electrification needs to be strengthened. A variety of uncoordinated subsidies in rural areas hinder the potential of long-term entrepreneurial approaches to providing PV and other off-grid services.
3. A number of actors are working in conjunction with different municipalities to formulate local energy strategies, and joint strategies at the regional level. However these approaches need to be structured in a more coherent manner to assess the most viable model, rather than sticking to very conventional approaches in competition with each other.

***Honduras:***

1. Implementation of bylaws and regulations is required to convert the pending electrification law into a working system for issuing permits and distribution contracts to clean energy projects of less than 5 MW.
2. Implementation of bylaws and regulations is required to operationalize the proposed Wholesale Market System for projects over 5 MW and to institutionalize procedures for obtaining Congressional approval of contracts and permits.
3. Modification of the electrification law and policy is needed, to permit a level playing field for non-grid projects and include an “as of right” per household subsidy and concession process for off-grid electrification designed to attract qualified companies and discourage opportunists. This would include the design and implementation of the proposed specialized fund for rural electrification (to be funded through the sale of distribution companies).

***Nicaragua:***

1. Nicaragua needs to resolve the status of its current PPA negotiations with a number of renewable energy projects that have made significant commitments of capital at the pre-investment stage but are currently unable to move forward due to the uncertainty in the sale of power.
2. The ongoing reform provides incentives for renewable energy development in the country, but so far these have not been implemented due to lack of capital to develop innovative schemes. Linkages need to be established between development assistance and environmental funds existing in the country and innovative initiatives that use clean energy technologies.
3. On- and off-grid project developers do not have the skills to make their projects bankable, especially under the current climate of uncertainty regarding the power sale regime. Conversely, financiers do not have the basic knowledge to evaluate and assess the risks of renewable energy projects. Alternative project structures for conventional PPAs under the newly privatized distribution scheme need to be explored and shared with developers and financiers.

***Panama:***

1. The National Commission on Energy Policy is currently formulating the policies for rural electrification, so an opportunity still exists to inform this process regarding the suitability of off-grid and small-scale renewable technologies.
2. In spite of having one of the largest commercial banking systems in Latin America, and the US\$ in 1 to 1 conversion rate to its currency, renewable energy developers lack the capacity to access capital for projects. An analysis of incentives and conditions that can help renewable energy projects to become more bankable is a relevant activity for Task CA7 given this context.
3. Another relevant task is to carry out an analysis of the commercial validation of the wholesale market given its bylaws and past performance.

**6. *Facilitation of Carbon Transactions (Task CA8)***

- 6.a. BUN-CA has assisted the Task Manger of CA8 in the review of the initial draft of the Manual for Carbon Transactions. Also, based on a previous activity carried out under the FOCER Initiative for the Government of El Salvador, BUN-CA provided two examples of CO<sub>2</sub> calculations for two projects, one based on bagazze cogeneration and the other project on the use of solar home systems for rural electrification in El Salvador.

**7. *Support and Capacity Building of BUN-CA (Task CA9)***

- 7.a. Our in-country representatives at the regional level include:

In **Panama**: Orlando Aguilar, who is also an associate to the Universidad Tecnologica de Panama.

In **Honduras**: Patricia Panting, who has been an active associate of BUN-CA for the past 5 years.

In **Guatemala**: Jorge Galindo, who holds a Master's degree on environmental economics from INCAE and has been brought into the renewable energy arena by BUN-CA.

In **Nicaragua**: María Engracia De Trinidad, who has also been an active collaborator of BUN-CA and is the Executive Director of Proleña, a local NGO actively working on biomass to energy uses in the Nicaraguan context.

In **El Salvador**: Ana María González, a former utility employee who is specialized on biomass-to-energy projects and also has been engaged in many BUN-CA projects in the past 5 years. Ana Maria is currently the Executive Director of the newly created NGO – Fuprodeh.

In addition, in all the countries mentioned above BUN-CA maintains close links with other professionals engaged on renewable energy, including Oscar Aguilar, Manuel Ma-Tay and Karla Hernández from Honduras, Serafin Filomeno in Nicaragua, Oscar Coto and Hugo Arriaza in Guatemala, Ivette Aguilar and Ismael Sanchez in El Salvador, among others.

- 7.b. BUN-CA, through FOCER and FENERCA is currently working with at least 14 different stakeholders in Central America, strengthening its networking capacity:

- El Salvador: Fuprodeh, Ucraprobex, Confederación Nacional Campesina (NGOs)
- Guatemala: NRECA, Fundación Solar (NGOs)

- Honduras: Sedes, Tres Valles Sugarmill, Hidroyojoa, (Project Developers), and ADESOL (NGO).
- Nicaragua: Proleña, Funproteca (NGOs)
- Panama: Ancon, Ademipp, Edwari Cundra (NGOs)

- 7.c. In-country representative in Honduras, Patricia Panting, recently left to Costa Rica to complete her Master's degree on environmental economics. After a round of interviews, BUN-CA has established a retainer contract with Ana Cristina Zepeda, as the new in-country representative in Honduras for FOCER and FENERCA. She is an economist with more than 5 years experience in renewable energy in Honduras, mostly on the use of photovoltaic energy. She is also the General Director of ADESOL-Honduras, other local NGO that has been very active on the use of photovoltaic energy and will be considered as the local NGO actively working with BUN-CA under Task CA9.
- 7.d. As part of the networking activities of FENERCA in conjunction with the strengthening of BUN-CA, the Initiative maintains close contacts with several organizations implementing activities in Central America on topics related to renewable energy and project financing, such as Winrock International, "Red de Género y Energía Renovable", Regional Project on Climate Change of the UNDP, CABEI, Central American Commission on Environment and Development.
- 7.e. In June 2000, BUN-CA participated in the regional Seminar "*Regional Market for Wind Power Generation*", organized by the ERAC Project (Renewable Energy in Central America) held in Honduras. This event broadly discussed the opportunities not only for wind power generation but the whole spectrum for renewable energy projects in the region. FENERCA offered a main presentation upon an official invitation by the organizers. BUN-CA had an active participation during the discussions.
- 7.f. On June 28- 29 BUN-CA participated in the "*First Forum on Alternative Energy*", organized by the Commission on "People and Environment" of the Central American Parliament organized (PARLACEN) in San Salvador. This encounter discussed the state-of-the-art and opportunities for renewable energy in Central America. FOCER and FENERCA initiatives were presented by 3 in-country representatives and by Regional Director of BUN-CA.
- 7.g. With the aim to disseminate the scope of FENERCA, BUN-CA prepared and published under the supervision of E&Co, an informational brochure that includes general information, project executers and the main contacts.
- 7.h. BUN-CA has significantly increased the number of hours dedicated to training on project financing thanks to FENERCA, during two sessions held in Honduras and El Salvador, as shown in the following Table:

**Table 7**  
**Number of Hours of Direct Training received by BUN-CA  
on Renewable Energy Project Financing**

Activity	BUN-CA participants	Hours	Total
Meetings in Costa Rica and El Salvador	17	8	136
Financing Engineering Workshop in Honduras	3	12	36
<b>TOTAL NUMBER OF HOURS OF TRAINING</b>			<b>172</b>

- 7.i. As part of FENERCA, E&Co already provided the disbursement corresponding to 56% of the funds allocated to increase the working capital of BUN-CA for institutional strengthening in order to consolidate its institutional role and mission in the long run.
- 7.j. The presence of BUN-CA region-wide has been extended and has become more constant in all the countries thanks to FENERCA. Currently, the headquarters has a more stable and defined technical and administrative structure. In the last 4 months it has retained new personnel as shown in Table 8, and it has improved its in-house capacity including new computer equipment, remodeling of the main offices, and a new telephone system.

**Table 8**  
**New Staff Hired by BUN-CA  
June-October, 2000**

Name	Charge	Starting Date
Leonel Umaña	Project Officer Renewable Energy	June 02, 2000
Ronald Valverde	Accountant	July 01, 2000
Tania Orlich	Project Officer	August 17, 2000
Franklin Mora	Accounting Assistance	October 09, 2000
Luis Aké	Representative in Belize	October 15, 2000
Ana C. Zepeda	New Representative in Honduras	October 15, 2000
Ronny Cascante	Management and Accounting Officer	October 23, 2000

- 7.k. With the support of E&Co, BUN-CA has prepared a Strategic Work Plan for the following years, whose final version is under review. This proposed Plan was prepared after holding several working meetings at BUN-CA based on a methodology developed of an external consultant during the months of June through August, 2000.
- 7.l. Finding well-trained professional staff in renewable energy in the Central American context is not an easy task because of the lack of previous experiences in this new field. Even though BUN-CA has made an effort to retain professional services in each country, it is critical for the success of the Initiative to train them on new aspects of project financing to increase their expertise. FENERCA with the active participation of BUN-CA is planning

the execution of a training session for them on the preparation of business plans, to be held in Guatemala during the first week of December 2000. This will allow the in-country representatives with the assistance of BUN-CA and E&Co to support 20 project developers with the preparation business plans, including the appropriate follow-up.

7.m. Thanks to the strategic alliance established by BUN-CA, FENERCA now is also known by the national and regional offices of United Nations Development Program (UNDP), bringing more institutional support to FENERCA's objectives and potential links with other on-going initiatives related to climate change in the near future.

**8. Other Activities related to Training Manuals (Tasks XC1, XC2, XC3, XC4 and MME)**

8.a. BUN-CA has provided continuous feedback to FENERCA's task coordinators on the different materials which are under preparation for the training sessions scheduled in the following months (XC1, XC2, XC3, XC4), as well as for monitoring and evaluation of the overall execution of the Initiative (MME).

8.b. BUN-CA has also maintained permanent contact through e-mail, conference calls, and regular meetings with all the partners, as well as providing the appropriate feedback to the different tasks through the BUN-CA in-country representatives, including the overall performance of the tasks, the Business Plan Manual, the Manual for Carbon Transactions and the Off-grid Manual.

**9. Field Missions carried out during the Period**

Following, there is a list of field trip missions to Central America carried out by BUN-CA officers jointly with in-country representatives for FENERCA:

**Table 9**  
**Field Missions carried out under the FENERCA Initiative**  
**June 29 – October 31, 2000**

<b>Date</b>	<b>Country</b>	<b>BUN-CA Personnel</b>	<b>Purpose</b>	<b>Budget</b>
June, 19-22	Honduras	José M. Blanco Patricia Panting	<ul style="list-style-type: none"> <li>• Preparatory visit for the Workshop on Project Financing</li> <li>• Meeting with the local USAID energy officer</li> <li>• Meetings in Tegucigalpa with E&amp;Co officers for overall coordination</li> </ul>	FENERCA
June, 2000	Honduras	Gilberth Masis	<ul style="list-style-type: none"> <li>• Active Participation in the Regional Seminar on "Central American Market for Wind Power"</li> </ul>	FOCER

40

June 28–29	El Salvador	José M. Blanco Orlando Aguilar Maria Engracia Ana Zepeda Ana Gonzalez	<ul style="list-style-type: none"> <li>• Active participation in the “Primer Forum Regional Alternative Energy”, organized by the central American Parliament PARLACEN</li> </ul>	FOCER
June 28-July07	Guatemala	Gilberth Masís Jorge Galindo	<ul style="list-style-type: none"> <li>• Participation in the training seminar “Developing Renewable Energy Businesses”, organized by Winrock Intl. and EIC. In addition, BUN-CA financed the participation of 4 project developers from Nicaragua, Honduras, Panama, and El Salvador</li> </ul>	FOCER
July 11-13	Honduras	José M. Blanco Leonel Umaña Patricia Panting Ana Zepeda	<ul style="list-style-type: none"> <li>• Organization of the First Seminar on RE Project Financing</li> <li>• Meeting with the local USAID office</li> <li>• Meetings in Tegucigalpa with E&amp;Co officers for overall follow up</li> </ul>	FENERCA FOCER
July 14-15	El Salvador	José M. Blanco Leonel Umaña Gilberth Masís 5 In-country rep.	<ul style="list-style-type: none"> <li>• Working meetings with in-country representatives for overall coordination, including in-country representatives, and, E&amp;Co-LAC y E&amp;Co-USA officers</li> </ul>	FENERCA FOCER
August 04	Nicaragua	Leonel Umaña Maria Trinidad	<ul style="list-style-type: none"> <li>• Meeting with de USAID officer (Efraín Lauriano)</li> <li>• Follow-up to current work plan for Nicaragua with in-country repr.</li> <li>• Meetings with MARENA, BANCENTRO, INE, and CABIE to introduce FENERCA</li> </ul>	FENERCA FOCER
August 10-11	Guatemala	Jose Ma. Blanco	<ul style="list-style-type: none"> <li>• Follow-up meetings with the local repr. J. Galindo</li> <li>• Meetings with NRECA and the Municipality of San Marcos about their project</li> <li>• Meetings with local USAID officers</li> </ul>	FENERCA
August 22-23	Panamá	Jose Ma. Blanco	<ul style="list-style-type: none"> <li>• Meetings with project developers (ANCON and</li> </ul>	Others

			<p>ADEMIPP) and national authorities, like, ANAM and CNPE</p> <ul style="list-style-type: none"> <li>• Follow-up meetings with the local repr. Orlando Aguilar</li> <li>• Meetings with USAID project officers</li> </ul>	
Sept. 14-15	Nicaragua	Jose Ma. Blanco Leonel Umana María E. Trinidad	<ul style="list-style-type: none"> <li>• Working visit to San Jose to coordinate activities and overall follow-up for FENERCA and FOCER</li> <li>• Review of the current activities, main outcomes of CA1 (Surveys), proposed projects, and the Policy Document (CA7)</li> </ul>	FOCER
Sept. 19-24	El Salvador	José M. Blanco Ana Gonzalez	<ul style="list-style-type: none"> <li>• Follow-up meetings with the local repr.</li> <li>• Visit to several projects developers including CNC (SHS), and La Magdalena Sugarmill</li> <li>• Meetings with national authorities (MARN)</li> </ul>	FENERCA FOCER
Sept. 18-23	Honduras	Gilberth Masís Joost Siteur	<ul style="list-style-type: none"> <li>• Interviews with several candidates to replace Patricia Panting as BUN-CA in-country repr.</li> <li>• Field visits to project developers including SEDES (hydro), Tres Valles Sugarmill, and Hidroyojoa (hydro)</li> <li>• Meetings with CABEI officers</li> </ul>	FENERCA FOCER
Sept. 27-29	Panama	José M. Blanco Orlando Aguilar	<ul style="list-style-type: none"> <li>• Follow-up meetings with the local repr. O. Aguilar</li> <li>• Visit to several projects developers including ANCON (SHS) and ADEMIPP (SHS)</li> <li>• Meetings with national authorities ANAM and CNPE</li> <li>• Meetings with USAID project officers</li> <li>• Identification of potential projects, i.e.: Edwari Cundra y Afotur</li> </ul>	FENERCA FOCER

USA

			<ul style="list-style-type: none"> <li>• Work plan for the upcoming seminar on RE national policy in Nov. 08, 2000</li> </ul>	
Oct. 9-13	Guatemala	Gilberth Masis Joost Siteur Jorge Galindo	<ul style="list-style-type: none"> <li>• Meetings with NRECA and the Municipality of San Marcos on the preparation of a business plan</li> <li>• Meetings with USAID regional officers and the PROARCA Program</li> <li>• Follow-up meetings with the local repr. J. Galindo</li> </ul>	FENERCA FOCER
Oct. 23-24	Panama	Leonel Umaña Orlando Aguilar	<ul style="list-style-type: none"> <li>• Working meeting with ADEMIPP on the preparation of the business plan</li> <li>• Meeting with Hall Cardwell of the USAID office in Panama to review logistics on the Nov. 08 national seminar and other RE issues in Panama</li> <li>• Follow-up meetings with the local repr. Orlando Aguilar</li> </ul>	FOCER

# ANNEXES

44

## Annex 1: Proceedings: Workshop in Honduras

# Taller Ingeniería Financiera

Tegucigalpa, Honduras, 11 y 12 de julio, 2000

### *Inauguración*

Se inició el Taller con la presentación del Vice-ministro del SERNA, señor Ernesto Bondy, seguida de una introducción dada por el señor Sergio Guillén, Asesor Técnico de E&Co-LAC.

Posteriormente el señor José María Blanco, leyó un mensaje de parte del representante residente del PNUD en Honduras, quien por motivos de trabajo no pudo estar presente.

Finalmente concluyó la señora Rina Rodríguez, Directora de Energía de la SERNA.

El objetivo de este taller, consistía en poner en conocimiento de los asistentes, que incluyeron, el sector Gubernamental, ONG's, Sistema Bancario y empresas, la herramienta para la elaboración de un efectivo Plan de Negocios, así como discutir e intercambiar ideas y opiniones sobre la Ley Marco del Sector Eléctrico Hondureño.

### *Planes de Negocios*

El señor Phill La Rocco, de E&Co-USA inició su presentación sobre la formulación de "Planes de Negocios" para proyectos energéticos, dando una explicación teórica sobre los aspectos que involucra esta herramienta de evaluación de proyectos.

El trabajo del señor La Rocco, consistió en:

1. Principales condiciones para la realización de inversiones en el sector energético.
2. Estructura de un Plan de Negocios.
3. Glosario y breves resúmenes informativos sobre tecnologías de energías renovables

Dentro de las principales condiciones para la realización de inversiones en el sector energético, hizo mención a las preguntas de: ¿porqué invierten los inversionistas?, ¿qué buscan los inversionistas?, ¿cómo analizan los proyectos los inversionistas?

A través de su presentación, en la estructura de un plan de negocios, presentó conceptos sobre la importancia de un buen plan de negocios, sus principales componentes, así como aspectos prácticos de términos financieros (el VAN, el TIR, Tasas de Descuentos, y otros).

Los componentes de un Plan de Negocios, son:

- I. **Ubicación y Tecnología** (ubicación y organización del proyecto, recursos o inputs, proceso, salidas o producción)
- II. **Acuerdos** (control del sitio, pre-construcción, construcción, operación y mantenimiento, venta de producción, permisos)
- III. **Participantes** (patrocinadores, asesores –técnicos, legales, financieros, aseguradores)

- IV. **Mercado** (nacional, local, legal y regulatorio, clientes)
- V. **Implementación** (plan, agenda y programación de actividades, recursos necesarios)
- VI. **Financiamiento** (costo del capital, ingresos, costo de los bienes vendidos, costos de operación, costos de venta y administración, plan financiero indicativo, interés sobre deuda, depreciación, impuestos, pagos de principal, resumen de gastos básicos, proyectos de financiamiento, indicadores financieros, análisis de sensibilidad, hoja de balance)
- VII. **Factores de Riesgo** (país, proyecto, cambios legislativos)
- VIII. **Resumen Ejecutivo** (puntos clave e información, resultados financieros básicos, próximos resultados, manifestación respecto a lo que se está buscando)
- IX. **Anexos** (estados financieros, estudios técnicos, cartas de autorización y aprobación de permisos, antecedentes e información del patrocinador)

Durante su presentación se llevó a cabo la ejecución de un estudio de caso denominado "Río Uno". Finalmente la actividad continuó con ejercicios en 3 grupos diferentes:

- 1) Proyecto Río Uno
- 2) Proyecto Ingenio Azucarero Dulce
- 3) Compañía de Electrificación Fotovoltáica SunSpot

Al final se realizó un plenario sobre cada las conclusiones de cada uno de los grupos formados. En los anexos se presentan los ejercicios utilizados.

### **Ley Marco del Sector Eléctrico Hondureño y Proyecto de Ley de Electrificación Rural**

Los señores José María Blanco, Lorna Li y Sergio Guillén, hicieron una presentación sobre el Proyecto de Ley Marco del Sector Eléctrico Hondureño, el proyecto de Ley de Electrificación Rural y el Contexto Legal Hondureño, cada uno de ellos, respectivamente.

## **Conclusiones Finales**

1. El éxito de un proyecto depende de un buen plan de negocios, tanto para su inversión como para el proyecto.
2. Por naturaleza, los inversionistas y desarrolladores son adversos al riesgo.
3. Con voluntad y un buen plan de negocios, un inversionista convierte problemas en oportunidades.
4. Como desarrolladores, debemos ser honestos –aceptar y valorar los riesgos-.
5. La co-inversión en la fase de pre-inversión puede ser tan crítica para el éxito del proyecto.
6. La co-inversión en la fase de pre-inversión puede ser:
  - aporte de capital
  - asistencia técnica
  - formulación de un plan de negocios
7. Aún cuando un inversionista financia proyectos, prefiere trabajar con desarrolladores, y no con un proyecto en sí, sino con un portafolio de proyectos.

8. Debe existir conciencia que instituciones públicas –fuertes y capacitadas– contribuyen al éxito de los proyectos.
9. Algunas de las inquietudes presentadas por los participantes durante el plenario final a los organizadores (Phill La Rocco, José María Blanco y Sergio Guillén), fueron:

Preguntas	Respuestas
a. Por miedo al riesgo se puede perder una oportunidad de negocios, ¿cómo hacer para quitar esto y tal vez buscar co-inversiones?	a) <i>Debemos pensar como inversionistas y buscar siempre incrementar el valor de los proyectos.</i>
b. En Electrificación con fotovoltaica, ¿cómo se ve la inversión para ello en la electrificación rural, tomando en cuenta las políticas de extensión de la red de electrificación?	b) <i>Hay que partir de las necesidades y saber que la red no va a llegar a todos los lugares. Tomar en cuenta costos y valores de ambos. Soluz ha tenido experiencia en zonas rurales</i>
c. Con la ley Hondureña de Electrificación, los desarrolladores solo tiene 3 opciones para vender, ¿qué expectativas hay de ello?	c) <i><u>Riesgo de transición</u> entre el viejo y el nuevo sistema, para minimizar este riesgo lo mejor es pasar de uno a otro lo más rápido posible. <u>Riesgo de venta de energía</u>, el desarrollador debe generar un seguro de venta de la energía mediante contratos a mediano plazo.</i>
d. ¿Qué expectativas tienen para proyectos hidroeléctricos pequeños?	d) <i>Todos los inversionistas (ONG's, bancos, personas, etc.) buscan lo mismo, invertir en proyectos con futuro.</i>
e. La Banca local siempre busca apoyo en las garantías, ¿se hablará o capacitará a ellos al respecto?	e) <i>Hay que pensar como banqueros, ellos buscan asegurar los fondos de sus depositantes. Un buen flujo de caja sin garantías de apoyo no significa mucho para un banco. Posiblemente se trabaje directamente con ellos.</i>
f. ¿Cómo se puede involucrar lo de secuestro de carbono en los flujos de caja, tomando en cuenta que no son entradas de efectivo a corto plazo?	f) <i>Es bueno tener claro cuánto efectivo representa hoy y cuánto en el futuro. Las restricciones y precios pueden disminuir o aumentar una vez que inicie un mercado libre de venta de estos créditos.</i>
g. ¿Cuál es la opinión sobre contratos bilaterales?	g) <i>Están obligados a comprar capacidad, no sólo energía, pero en proyectos menores si comprar sólo la energía. Tal vez no hay tanto problema a pequeña escala con la venta de energía. Según la ley, los pequeños pueden vender directamente pero los grandes deben hacerlo por medio de licitación.</i>
h. ¿Cómo hacer para que los financistas financien proyectos a su vida útil?	h) <i>Es difícil, porque el dinero en 16 años, ¿cuánto valdrá?, ¿cuáles serán las políticas?, ¿cuáles serán los mecanismos de salida?</i>

**Anexo N°1**  
**LISTA DE PARTICIPANTES**

	NOMBRE	INSTITUCION	CARGO
1	Oscar A. Nuñez	ELCOSA	Gerente mercadeo
2	Armando Rodas	ELCOSA	Analista Financiero
3	Berta Nidia Santos	SERNA	Asesor legal
4	Patricio Rueda	BCIE	Analista
5	Reinerio Zepeda	SERNA	Especialista Energético
6	Jorge Fidel Rivera	CENIT	Contador
7	Oscar O. Aguilar	ASEM/SMT	Gerente Técnico
8	Andres Cruz	DGE/SERNA	Especialista Energético
9	Auxiliadora de Landres	BANCATLAN	Técnico economista
10	Jorge Fidel Rivera	AHPPEH	Presidente
11	Ernesto Bondy	SERNA	Vice Ministro
12	Luis Cerna	INV. CERNA	Encargado de proyecto
13	María García	C.N.E.	Comisionada
14	Glenda Castillo	ENEE	Jefe Depto. Desarrollador
15	Christian Isaguirre	ENEE	Ingeniero Planificador
16	Nereida Montes de Oca	DGE	Especialista Energético
17	Leslie Saravia	DGE	Especialista Energético
18	Karla Hernández	ENEE	Planeamiento Operativo
19	Manuel Matay	HIDROYOJOA	Vice Presidente
20	Grecelda Banegas	DGE	Especialista Energético
21	Angel Baide	CPME	Coordinador
22	Doris Hernández	D.G.E.	Asistente
23	Ethel Inés Enamorado	ADESOL	Administrador
24	Zuyapa Zelaya	UICH	Director Energético
25	Ana Christina de Servellon	ADESOL	Director Ejecutivo
26	Diana Solís	SOLUZ	Gerente General
27	Jorge Santos	ENEE	Gerente
28	Carolina Andara	D.G.E.	Especialista Energético
29	Rina Rodríguez	D.G.E.	Director
30	Leonardo José Matute	D.G.E.	Analista Energético
31	Albin William Blatter	D.G.E.	Energía Solar
32	Monterey Cárdenas	MUNICIPALIDAD	Alcalde
33	Rigoberto Borguez	ENERGISA	Gerente Finanzas
34	Gilberto Ramos Durán	ENEE	
35	Irving Zavala	COMERCIAL	
36	Oscar Pinto	OICH	
37	Daniel E. Molina	C.N.E.	
38	Leonel Umaña Fonseca	BUN-CA	Oficial de Proyectos
39	José María Blanco	BUN-CA	Director Regional
40	Patricia Panting	FENERCA	Representante Local Honduras
41	Lorna Li	E&Co	Asesora Técnica
42	Sergio Guillén	E&Co	Asesor Técnico
43	Phill La Rocco	E&Co	Director

**Anexo N°2**  
**INFORMACIÓN PARA TRABAJOS EN GRUPOS**

**EJERCICIO GRUPAL # 1: PROYECTO RIO UNO**  
**Elaborado por E&Co**

**Proyecto** – Alcance etapa operacional Proyecto Río Uno

**Propuesta en Consideración**- Invertir \$250,000 para completar ingeniería detallada y varios contratos.

Favor identificar:

- 3 a 5 fortalezas y debilidades de este proyecto.
  - Los mayores riesgos que tiene que asumir un inversionista en esta etapa de \$250,000.
  - Las condiciones que pueden ser favorables para un inversionista o prestamista posterior.
- 

Su grupo ha recibido el Plan de Negocios del Proyecto Río Uno más las siguientes actualizaciones:

1. Del costo de capital de US\$ 3,450,000, solo el 60% de la deuda y el 30% de participación accionaria ha sido apropiada. Nada de esta participación está disponible en este momento.
2. Un pago de US \$250,000 debe hacerse en los próximos días para:
  - (a) Servicios de Ingeniería: US \$50,000
  - (b) Un anticipo sobre la energía y los contratos de compraventa de la capacidad: US \$100,000
  - (c) Pago final sobre la tierra: US \$100,000
3. Como contraprestación de los US \$250,000, la Compañía promotora del Proyecto está ofreciendo al grupo oferente:
  - (a) Una participación equivalente a US \$250,000
  - (b) Un 25% sobre el flujo de caja

## **EJERCICIO GRUPAL # 2: INGENIO AZUCARERO**

**Elaborado por E&Co**

**Proyecto** – Conversión de un Ingenio Azucarero en una operación para incluir un componente de energía de alta eficiencia (costo total aproximado del proyecto – \$50 millones).

**Propuesta en Consideración**- Invertir \$250,000 para completar ingeniería detallada y varios contratos.

Favor identificar:

- 3 a 5 fortalezas y debilidades de este proyecto.
- Los mayores riesgos que tiene que asumir un inversionista en esta etapa de \$250,000.
- Las condiciones que pueden ser favorables para un inversionista o prestamista posterior.

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En los últimos dos años Jones Engineering Company ha estado organizando un proyecto para convertir el Ingenio Azucarero Dulce, de calderas de baja presión que producen calor para el procesamiento de azúcar, a calderas de alta presión que producen electricidad para la venta de electricidad local. Jones Engineering ha completado las siguientes tareas:

- Preparó un estudio de viabilidad basado en ingeniería preliminar de un consultor local.
- Celebró contratos con el ingenio azucarero principal (para distribuir bagazo y comprar vapor y electricidad) y con la compañía local de distribución de electricidad.
- Elaboró un memorando de entendimiento y comenzó negociaciones con el constructor propuesto IPC (ingeniería, planeación y construcción)
- Creó y registro una compañía promotora de proyecto.

Para poder completar las negociaciones del contrato IPC y cumplir con el cronograma de actividades a tiempo, Jones Engineering debe desarrollar las siguientes tareas:

- Preparar una evaluación ambiental y completar el proceso de conseguir los permisos necesarios.
- Tener los estimativos preliminares de ingeniería y los estimativos IPC examinados y evaluados por un ingeniero independiente.
- Preparar un memorando de oferta y negociar los términos del capital y de la deuda.

Aunque Jones no está preparado para traer un socio de desarrollo o para vender el proyecto a una compañía experta en desarrollo, Jones está preparado para ofrecer una cuota de capital en el proyecto y una cuota de tarifas de desarrollo a una entidad que ofrezca invertir \$250,000 en el momento.

Un análisis financiero del proyecto concluye que si los \$250,000 en tareas son cumplidos satisfactoriamente, la Compañía Jones puede llegar a ganar una tarifa de desarrollo de \$2 millones por el proyecto y retener un interés de \$3 millones en el mismo. Jones ha gastado \$1 millón para llegar a este punto, pero no puede realizar más gastos.

El análisis de viabilidad del proyecto, preparado por Jones, destacó los siguientes hechos y asuntos:

- El Ingenio azucarero ha estado compitiendo en esta industria por más de 20 años, ha establecido relaciones de vieja data con los cultivadores de azúcar y su productividad en cuestión de procesamiento de azúcar y rentabilidad ha estado por encima del promedio.
- La industria azucarera ha sobrevivido con márgenes de rentabilidad muy bajos por el decaimiento mundial de la demanda de azúcar y porque el mercado nacional ha estado rezagado.
- El ingenio realizó una modernización hace cinco años y ve este proyecto como un paso más de esa modernización. Aunque está dispuesto a proporcionar electricidad (bagazo) al proyecto, no está dispuesto a comprometerse en la construcción y operación de una planta de energía sofisticada. Se ha llegado a un acuerdo en el que el ingenio provee el bagazo y recibe vapor procesado y una regalía.

- La capacidad y energía sobrante será esencial y va a ser vendida a la compañía local de distribución de energía vía un contrato de adquisición de tres años. La compañía tiene interés en usar bagazo como electricidad antes que importar combustible.
- La compañía local de electricidad ha celebrado y cumplido cabalmente contratos similares en los últimos años. La compañía local no ha vendido ningún activo o pedido algún préstamo en los últimos años.
- La energía se venderá al mercado de Córdoba: las ventas se denominan en dólares americanos pero se pagan en moneda local.
- La tecnología propuesta ha sido implementada en una docena de proyectos similares alrededor del mundo pero solo uno de estos proyectos ha sido implementado en el país.

Jones Engineering ha negociado un contrato IPC (Ingeniería, Planeación, Construcción), con una firma internacional bien establecida, con experiencia en la construcción de tres proyectos similares, aunque no en este país. El proyecto prevé un precio global, "llave en mano" (se entrega completado y listo para operar a una compañía operadora), con la IPC dando un entrenamiento y supervisión de seis meses para la compañía operadora, la cual Jones Engineering le organizará equipo. Como una alternativa, Jones Engineering está considerando requerir propuestas de compañías operadoras expertas.

El Banco Nacional de Desarrollo ha ofrecido tentativamente un paquete de crédito para cubrir el 60% del costo total del proyecto (a un plazo de 12 años con una tasa de interés atractiva en el mercado). Uno de los proveedores de equipos ha ofrecido un crédito adicional de 15% del costo del proyecto pero a un plazo más corto (5 años) y más costoso (16%) dollar/euro. El tetorno del capital es del 18%, teniendo en cuenta el interés otorgado y las tasas de desarrollo de Jones Engineering. La fábrica tendrá una vida económica útil de 25 a 30 años si se hace un mantenimiento regular y se hacen reemplazos de equipos cada cinco años. El análisis financiero incluye asignaciones para ambos costos.

### **EJERCICIO GRUPAL # 3: PROYECTO RURAL DE ELECTRIFICACION**

Elaborado por E&Co

**Proyecto** – Un proyecto RURAL DE ELECTRIFICACIÓN de \$25 millones que ayude a 50,000 viviendas o más.

**Propuesta en Consideración** – Gastar \$250,000 para crear y probar un esquema comprensivo de mercado que sirva como Fase 1 del proyecto de \$25 millones.

Favor identificar:

- 3 a 5 fortalezas y debilidades de este proyecto.
- Riesgos que tendría que afrontar un inversionista que realice la inversión de \$250,000 en esta "Fase 1" del proyecto.
- Condiciones en las que el proyecto puede ser promovido para que futuros inversionistas o prestamistas estén interesados.

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Durante los últimos cuatro años SunSpot SA ha producido sistemas solares de hogar (fotovoltaicos o PVP) a diferentes aldeas del Distrito Rural # 1 (que es bastante grande y contiene 800,000 viviendas sin electricidad).

SunSpot ha estado vendiendo sistemas por efectivo y ha desarrollado una relación con una Organización No Gubernamental de micro-crédito, y por lo tanto ya tiene experiencia vendiendo sistemas a crédito. SunSpot obtiene estos productos de varios proveedores del mercado (nacionales e internacionales), y por ello ha podido mantener sus precios en un nivel competitivo. La experiencia de SunSpot en transacciones de efectivo y a crédito ha sido buena. El éxito de SunSpot ha sido logrado en parte por una aproximación que incluye una asociación con empresas locales para resolver problemas. Así, el mantenimiento, el recaudo de cuentas y el arreglo de los componentes son problemas que se manejan rápidamente.

**Recientemente, SunSpot ha instalado sistemas en una aldea usando una aproximación diferente. En esta aldea SunSpot prevé el sistema y los servicios de apoyo y las viviendas pagan una cuota mensual, así como se haría a una compañía local de electricidad si existiera en el Distrito Rural #1. Hasta ahora la experiencia de SunSpot ha sido satisfactoria y el socio local ha podido recaudar tarifas, proveer el servicio, y cuando el pago no se ha hecho, incautar el equipo y ponerlo en el mercado.**

El gobierno nacional y la electrificadora del Estado han estado presionando para que se electrifique el Distrito Rural # 1 pero el costo de extender la red eléctrica lo hace imposible. Lo que han propuesto es un proyecto de 2 fases en el que se descentraliza la electrificación usando paneles solares.

En la Fase 1 SunSpot electrificaría entre 300 y 400 viviendas en tres aldeas. SunSpot ofrecería una amplia gama de productos, desde linternas PV que no son costosas hasta sistemas PV grandes para vivienda. Estos productos serían ofrecidos como (1) un precio total en efectivo (2) un precio con un acuerdo crediticio (3) una tarifa por servicio prestado (en cuyo caso SunSpot seguiría siendo dueño del sistema). Adicionalmente, el gobierno contrataría a SunSpot para instalar el alumbrado público y servicios comunitarios de electricidad (con combinaciones TV-VCR y pequeños refrigeradores de calidad WHO).

El gobierno pagaría a SunSpot sus gastos en esta primera fase, y le daría un subsidio en efectivo de \$350 para cada vivienda – mucho menos que el costo de la red eléctrica- para permitir que una porción sustancial de la población pueda adquirir los productos. SunSpot sería responsable por la instalación y servicio del equipo.

En la Fase 2 el gobierno ofrecería una concesión a todo el Distrito Rural # 1 en un concurso competitivo pero con crédito a cualquier oferente que tenga experiencia directa en la región y experiencia con operaciones en efectivo y a plazo.

En su análisis de viabilidad la Junta de SunSpot está satisfecha en que con o sin el subsidio del gobierno hay suficiente poder de compra y demanda de los consumidores para garantizar una inversión "libre de conceptos" como la de Fase 1. Los asuntos que más preocupan a la Junta son:

- Si combinar efectivo, crédito y tarifa por servicio en el mismo mercado confundiría y desorganizaría a los consumidores.
- Si el proceso de oferta para el Distrito Rural # 1 será como el descrito por el gobierno (dando crédito a cambio de experiencia). Si no, un oferente con más experiencia podrá poner a SunSpot de lado.
- Si SunSpot podrá establecer canales de distribución del servicio en una forma que permita una transición simple de Fase 1 a la escala de 500,000 viviendas.

Una idea en consideración es formar una asociación con una compañía internacional proveedora de sistemas PV. La ventaja sería que SunSpot no tiene que desembolsar todos los \$250,000 de la Fase 1 y estaría posicionada con un socio fuerte para la oferta de Fase 2. Las desventajas son que un proveedor demandará una gran cantidad de control sobre lo que se haga en la Fase 1, mientras que si SunSpot termina Fase 1 sin tal proveedor (1) incrementaría significativamente su valor y su habilidad para mantener el control (2) eliminar el problema potencial de estar atado a un solo proveedor (que puede ser o no competitivo en el futuro).

Como una alternativa a tener un socio de industria SunSpot está buscando un inversionista financiero que invierta \$250,000 que permita a SunSpot completar Fase 1 sin estar atado a un solo proveedor.

El retorno de la Inversión (Fase 1, todo el capital), como resultado de que SunSpot recibe el subsidio inicial del contrato del gobierno. En la Fase 2, que va a ser lo suficientemente grande para garantizar prestamos dentro del país y relaciones de Leasing, el retorno del capital será de mas del 35%.

## Annex 2: Letter of Approval under CA1

7 de setiembre, 2000

Señor

Presente

*Asunto: Confirmación de selección para apoyo por parte de la Iniciativa FENERCA.*

Estimado señor(a):

Como es conocido por usted, BUN-CA, en conjunto con E&Co y Hagler Bailly, están ejecutando la **Iniciativa Financiamiento de Empresas en Energía Renovable de América Central (FENERCA)**, auspiciada por la USAID, que busca el incremento del uso de energía renovable en cinco países de la Región Centroamericana, a saber: Guatemala, Honduras, Nicaragua, El Salvador y Panamá. La iniciativa se propone alcanzar este objetivo a través del desarrollo de actividades de inversión directa en proyectos de energía renovable y empresas energéticas, de fortalecimiento institucional a nivel de organizaciones no-gubernamentales e instituciones financieras y de introducción de alternativas en el marco regulatorio.

Agradecemos el tiempo y colaboración dedicados a completar la encuesta circulada en su país. Gracias a su colaboración, se presentaron alrededor de cien propuestas de proyectos en toda la región, las cuales son de gran interés para FENERCA. Sin embargo, al no contar la iniciativa con la capacidad de acoger todos los proyectos presentados, nos hemos visto obligados a seleccionar únicamente veinte proyectos que podrán contar con asistencia específica en materia de desarrollo de planes de negocios.

Nos complace comunicarle que su organización ha sido elegida dentro de estas veinte iniciativas.

En este sentido, es importante para nosotros conocer antes del 30 de setiembre de 2000, y por escrito, su interés en recibir este apoyo, a fin de iniciar la preparación del Plan de Negocios para su empresa o proyecto y solicitar la información a fin de iniciar las gestiones correspondientes.

Agradeciendo su atención a la presente, y en espera de su respuesta, se suscriben atentamente,

Comité Coordinador de FENERCA

José María Blanco  
Director Regional  
BUN-CA

Fernando Alvarado  
Director Regional  
E&Co-LAC

cc: BUN-CA  
E & Co

54

## Annex 3: Letter of Disapproval under CA1

7 de setiembre, 2000

Señor

Presente

*Asunto: Agradecimiento por su respuesta a la Encuesta de la Iniciativa FENERCA.*

Estimado señor(a):

Como es conocido por usted, BUN-CA, en conjunto con E&Co y Hagler Bailly, están ejecutando la Iniciativa **Financiamiento de Empresas en Energía Renovable de América Central (FENERCA)**, auspiciada por la USAID, que busca el Incremento del Uso de Energía Renovable en cinco países de la Región Centroamericana, a saber: Guatemala, Honduras, Nicaragua, El Salvador y Panamá.

Agradecemos su tiempo y colaboración para completar la encuesta circulada en su país. Gracias a esta colaboración, se presentaron alrededor de cien proyectos en toda la región, los cuales son de gran interés para la Iniciativa. Desafortunadamente, FENERCA no cuenta con la capacidad para acoger todos los proyectos presentados, por lo que ha seleccionado únicamente veinte proyectos, que son aquellos que satisfacen todos los requerimientos de la Iniciativa.

El motivo de esta misiva es para comunicarle que su organización, no ha sido escogida dentro de estas primeras veinte iniciativas a apoyar. Sin embargo, conservaremos la información proporcionada, ya sea para que la misma sea considerada por FENERCA en caso de contar con mayor capacidad en términos de asistencia a los proyectos, o bien para información a terceros en un futuro cercano. Si no recibimos respuesta por escrito sobre el particular por parte ustedes, entenderemos que no tienen objeción alguna en que mantengamos esta información.

No obstante lo anterior, su organización será tomada en cuenta para participar en las demás actividades que está desarrollando FENERCA, tales como los talleres de capacitación en ingeniería financiera y en planes de negocios que se van a realizar en su país.

Asimismo, uno de los objetivos que se espera alcanzar con FENERCA es elaborar un Manual sobre Planes de Negocios, que esperamos concluir a inicios del 2001, a fin de que pueda ser utilizado por organizaciones como la suya, de manera independiente. El objetivo de dicho manual, será proporcionar los instrumentos necesarios para que los empresarios e instituciones involucrados en el sector de las energías renovables, puedan llevar sus ideas de negocios a una fase más avanzada de desarrollo. En este sentido, agradeceríamos nos indique su posible interés en este manual, con el fin de incluir su nombre en nuestra lista de distribución.

Agradeciendo su atención a la presente, y esperando continuar contando con su apoyo, nos es grato suscribir.  
Atentamente,

Comité Coordinador de FENERCA

José María Blanco  
Director Regional  
BUN-CA

Fernando Alvarado  
Director Regional  
E&Co-LAC

cc: BUN-CA  
E & Co

## Annex 4: Letter to the banks

7 de setiembre, 2000

Señor

Presente

**Asunto: Agradecimiento por su respuesta a la Encuesta de la Iniciativa FENERCA.**

Estimado señor(a):

Como es conocido por usted, BUN-CA, en conjunto con E&Co y Hagler Bailly, están ejecutando la **Iniciativa Financiamiento de Empresas en Energía Renovable de América Central (FENERCA)**, auspiciada por la USAID, que busca el Incremento del Uso de Energía Renovable en cinco países de la Región Centroamericana, a saber: Guatemala, Honduras, Nicaragua, El Salvador y Panamá.

Agradecemos su tiempo y colaboración para completar la encuesta circulada en su país. Gracias a esta colaboración, la iniciativa ha seleccionado veinte proyectos, de un total de cerca de cien presentados, los cuales contarán con asistencia específica en materia de desarrollo de planes de negocios.

A partir del mes de Setiembre, se ha iniciado la Segunda Fase del Proyecto FENERCA la cual comprende la distribución de herramientas conceptuales para la estructuración y el análisis de proyectos de energía renovable. Esta nueva fase contempla también la realización de talleres de capacitación en temas tales como ingeniería financiera y desarrollo de planes de negocios de proyectos de energía renovable, en los diversos países en los cuales se enmarca la iniciativa.

Asimismo, se procurará presentar a los intermediarios financieros interesados en involucrarse activamente en la inversión en energías renovables los planes de negocios elaborados con el apoyo de la Iniciativa, conjuntamente con las herramientas de análisis desarrolladas. Si usted está interesado en participar en los talleres de ingeniería financiera aplicada al sector de energía renovable, o en recibir para su consideración los planes de negocios de los proyectos seleccionados, le agradeceríamos que nos lo indique por escrito para incluir su nombre en nuestra lista de participantes en la Segunda Fase de la Iniciativa FENERCA.

Agradeciendo su atención a la presente, y esperando continuar contando con su apoyo, nos es grato suscribir.

Atentamente,

Comité Coordinador de FENERCA

José María Blanco  
Director Regional  
BUN-CA

Fernando Alvarado  
Director Regional  
E&Co-LAC

cc: BUN-CA  
E & Co

## Annex 5: Newspaper articles

LA NACION, domingo 3 de setiembre del 2000

### **Barreras a la energía**

● Durante un seminario sobre "Cambio climático y mecanismos de desarrollo limpio en el sector energético", realizado recientemente en Tegucigalpa y que fue patrocinado por el Banco Centroamericano de Integración Económica y el Fondo E7 para el Desarrollo Energético Sostenible, 30 expertos analizaron las oportunidades y dificultades para impulsar el desarrollo de la energía renovable en Costa Rica y el resto de países del área.

Según Gilberth Masís, director de operaciones de la Oficina Regional para Centroamérica de Biomass Users Network (BUN-CA), entre las barreras más importantes para la implementación de esos proyectos está la poca experiencia de las instituciones de financiamiento en el apoyo de las iniciativas de energía renovable.

## CAMARA DE GANADEROS Y COOPEPENIN RINDE HOMENAJE AL ING. EITHEL CUBILLO FLORES.

Delegaciones de ambas instituciones visitaron en su casa de habitación para el homenaje, el 4 de marzo.

**PARA:** Ing. Eithel Cubillo Flores  
**DE:** Cámara de Ganaderos de Nicoya- COOPEPENIN  
**AUTOR:** José Domingo Gutiérrez Rosales.

Eithel Cubillo Flores pionero de pura sepa purifica guapipá Secretario de Coopepenin de la Cámara de Ganaderos impulsor de ideas con sus compañeros, por el desarrollo agropecuario y financiero.

El Pacífico Seco pronosticó la sequía la pampa sin agua no produciría en su silla de ruedas defende todavía el sabroso gallopinto y la cuajada con tortilla.

Nicoya cuna de la Cultura Chorotega donde el guaco canta y también la Chochochola en sus fiestas populares montan toros todo es alegría, costumbres, tradiciones de esta linda tierra mía

Montado en la yeguita todos lo aplaudían las lindas cholitas ellas lo decían don Eithel Bienvenido a la cofradía,

tenemos tiste, chicheme, tanelas y rosquifas y si quiere otra cosita, también se la daría

Ya con esta me despidió dejándoles la yeguita en la vieja cofradía.

Las cholitas me mintieron lo que ellas me ofrecían de la costia me dijeron que mañana era otro día solamente de dieron tiste Chicheme, tanelas y rosquifas.

La yeguita relinchaba amarrada al guachipelin daba vueltas se esredaba y se caía se levantaba y saltarse no podía una esperanza le quedaba que el mayordomo la soltaría, y de la graciosa historia don Eithel se sonreía y se despedía gritando vivan las tradiciones de esta linda tierra mía.

## RESALTAN VENTAJAS DE LA ENERGIA RENOVABLE

Arranco programa de \$ 3 millones para incentivar el uso de fuentes de energía renovable en Centroamérica.

La producción de energía mediante tecnologías limpias que eviten la contaminación representa una de las mejores opciones para combatir fenómenos como el calentamiento global y el efecto invernadero.

En este caso, como otros beneficios de las fuentes renovables, fueron destacados durante una reunión de expertos que se dieron cita el pasado 14 de marzo en el Hotel San Gilmar (Escuzú) en una encerrona que marcó el principio del Programa para incrementar el uso de recursos de energía renovable.

Esta actividad pretende impulsar la creación de iniciativas que utilicen este tipo de técnicas en Centroamérica.

La coordinación central del programa, que invertirá cerca de \$ 3 millones, está a cargo de la Oficina Regional para Centroamérica de Biomass, Users Network (BUN-CA) y del Servicio de Inversiones en Energía (E&Co) de New York, el Caribe y América Latina y cuenta con el apoyo de la Oficina Internacional para el Desarrollo (USAID) y del Programa de la Naciones Unidas para el Desarrollo (PNUD).

Esta iniciativa tiene una duración de 18 meses y pretende entre sus principales metas capacitar a pequeños empresarios

organizaciones no gubernamentales, agencias de financiamiento y otros sectores para mostrar los grandes beneficios económicos y ambientales de la energía renovable (solar, eólica, biomásica e hidráulica) que tiene en el mercado potencial muy amplio en la región.

Impulsar este tipo de sistemas tiene enormes ventajas para los países. En primer lugar con estas fuentes alternativas se contribuye a disminuir los altísimos costos que para nuestras naciones por la importación de petróleo. En segundo lugar por sus mismas características (bajos costos de la facturación en largo plazo) la energía renovable es más accesible para las poblaciones de zonas rurales que no están conectadas a la red pública", dijo Gilbert Mustú, Director de Operaciones de BUN-CA.

ARQUITECTURA  
CONSULTORIA  
CONSTRUCCION

Lic. Fernando Rodríguez Jenkins  
Arquitecto

Tel Fax. Ofic. 685-5070

Tel. Celular: 382-1263

Tel. Oficina 686-4422

Apdo. 78-5200

Calle No. A-5015

50 mts. Este de la Iglesia Colonial  
Nicoya, Guanacaste

# VIV

## Guanacaste Afectados por su casa nueva

\* El Presidente Dr. M. das en Palmira de C para erradicar tuguri

\* Las casas fueron e emergencia, lo cual c ta del Gobierno.

\* El proyecto Palmiro 54 más en progreso, meses, para una inve

## Además en S

\* Durante su visita a C 31 escrituras a veci Esquipulas, en Santa

\* Entre los beneficiar mujeres jefas de hogu

La inauguración de las prim viviendas del Proyecto Palm estuvo a cargo del Presidente Miguel A. Rodríguez, y autor del sector vivienda.



## Congreso de Historia

● Temas tan diversos como "Los inmigrantes chinos en Costa Rica", "Centroamérica: los procesos y la integración en la frontera sur del NAFTA" y "El álbum de Figueroa: técnicas de conservación" serán expuestos y debatidos durante el II Congreso de Estudiantes de la Escuela de Historia de la Universidad de Costa Rica.

La actividad, del martes al viernes próximos, constituye una oportunidad para que los alumnos de las carreras de Historia, Estudios Sociales y Archivística expongan sobre sus diversas investigaciones.

Pero también habrá charlas de los profesores. Así, Ronny Viales disertará sobre "La crisis económica de 1929 en el sector agrario de América Latina"; Luis Guillermo Solís se referirá al proceso de integración centroamericana y Eugenia Ibarra lo hará sobre "La pertenencia del uso de la analogía en la historia del sureste de Costa Rica".

## Capacitación para indígenas

● Curanderos y líderes de Alta Talamanca serán recibidos por el hospital limonense Tony Facio y otros centros de salud de la Caja Costarricense de Seguro Social (CCSS) con el fin de darles preparación en primeros auxilios.

Jorge Meza Madriz, director de la Región Hueta Atlántica de la CCSS, informó, mediante un comunicado de prensa, que se pretende que ellos conozcan y eduquen a sus comunidades acerca de las enfermedades que los pueden afectar, como desnutrición, parásitos intestinales, diarreas y problemas en la piel.

La iniciativa contempla, también, que esas personas puedan atender a los pacientes, mientras llega la asistencia médica, la cual tarda varias horas debido a que el centro de salud más cercano se encuentra a ocho horas a pie de sus comunidades.

La CCSS proveerá a quienes reciban el adiestramiento de medicamentos para las emergencias. Este programa dará inicio en las próximas semanas.

## Barreras a la energía

● Durante un seminario sobre "Cambio climático y mecanismos de desarrollo limpio en el sector energético", realizado recientemente en Tegucigalpa y que fue patrocinado por el Banco Centroamericano de Integración Económica y el Fondo E7 para el Desarrollo Energético Sostenible, 30 expertos analizaron las oportunidades y dificultades para impulsar el desarrollo de la energía renovable en Costa Rica y el resto de países del área.

Según Gilbert Masís, director de operaciones de la Oficina Regional para Centroamérica de Biomass Users Network (BUN-CA), entre las barreras más importantes para la implementación de esos proyectos está la poca experiencia de las instituciones de financiamiento en el apoyo de las iniciativas de energía renovable.

**ANNEX C:  
FENERCA Brochure**

# FENERCA

Financiamiento de Empresas  
de Energía Renovable  
en América Central

Países Involucrados



Guatemala



El Salvador



Honduras



Nicaragua



Panamá



BUN-CA

E&Co

Servicios de Inversión  
en Energía Renovable

Hagler-Bailly

Financiado por



# Financiamiento de Empresas de Energía Renovable en América Central



## FENERCA

E&C

Servicios de Inversión en Energía Renovable

### ¿Qué es FENERCA?

FENERCA es un programa patrocinado por la Agencia Internacional de Desarrollo de los Estados Unidos de América (USAID), que busca incrementar el uso de energía renovable en cinco países de la Región Centroamericana: Guatemala, El Salvador, Honduras, Nicaragua y Panamá. Esta iniciativa es ejecutada por E&C en asociación con Biomass Users Network de Centroamérica (BUN-CA) y la empresa consultora Hagler Bailly bajo el convenio E&C/USAID/C/ENV/EEI/99501.

FENERCA tiene como objetivo aportar la experiencia de los participantes en las áreas de financiamiento de Proyectos de Energía Renovable, y apoyar la creación de la Capacidad en América Central para la ejecución y desarrollo de proyectos de energía renovable.

Este objetivo será alcanzado a través de la inversión directa en proyectos y empresas energéticas, actividades de fortalecimiento institucional a nivel de

organizaciones no gubernamentales e instituciones financieras y la introducción de alternativas en el marco regulatorio.

FENERCA se ejecuta por medio de actividades específicas que están enfocadas especialmente al desarrollo de empresas y la superación de barreras institucionales, de información técnicas y financieras que incluyen:

- capacitación en el diseño de planes de negocios;
- identificación de fuentes de financiamiento para la segunda etapa del proyecto;
- creación de capacidad institucional, políticas y reformas al sector energético en los países involucrados; y
- opciones para el desarrollo de la electrificación rural con fuentes de Energía Renovables, reducción de las emisiones de gases efecto invernadero y la elaboración de un manual que sirve para el monitoreo y evaluación de proyectos de energía renovable.

### Resultados Esperados:

Con el desarrollo de FENERCA se espera alcanzar los siguientes resultados:

- Elaborar un portafolio de proyectos y empresas de energía renovable elegibles para recibir asistencia tanto financiera como técnica;
- Fortalecimiento de la capacidad de organizaciones financieras tradicionales y entidades no gubernamentales para el desarrollo de proyectos de energía renovable;
- Identificar un grupo de instituciones financieras empresas que cuenten con la capacidad para garantizar el futuro desarrollo de un portafolio de proyectos a nivel regional;
- Incremento de la participación en el sector de energía renovable en los esquemas de generación eléctrica, al igual que mayor participación de instituciones multilaterales como fuente de financiamiento en la región;
- Aumento del apalancamiento y conexiones entre programas y organizaciones de energía renovable dentro y fuera de Centroamérica, y un incremento significativo del número de profesionales en el área de energía renovable.

## ¿Quiénes son los participantes?

**E&Co** es una corporación de inversiones sin fines de lucro, cuyo propósito es asistir a través de servicios de desarrollo empresarial y aportes de inversión en forma de préstamos e inversiones patrimoniales, a empresas de energía viables que provean energía limpia, confiable y a precios razonables. Su función dentro de FENERCA es servir como organización responsable ante USAID de la ejecución e implementación de la Iniciativa.

**BUN-CA** es una organización no gubernamental cuya misión es contribuir al desarrollo y fortalecimiento de la capacidad de América Central para aumentar su producción por medio del uso sostenible de los recursos naturales, como medio para mejorar la calidad de vida de sus habitantes, especialmente en las áreas rurales. Su función en FENERCA es servir de co-ejecutor de la Iniciativa.

**Hagler Bailly**, es una empresa de Estados Unidos dedicada a labores de consultoría en las áreas de energía y medio ambiente. Su participación dentro de FENERCA es ser co-ejecutor de la Iniciativa.

**FENERCA** cuenta con la participación de representantes locales en cada uno de los países participantes. La función de estos representantes es, además de colaborar en el desarrollo de actividades específicas, servir de interlocutores entre la dirección de la Iniciativa y los proyectos de energía renovable.

## ¿Cómo Contactamos?

### **E&Co para América Latina y El Caribe**

**Fernando Alvarado**

**Sergio Guillén** • **Lorna Li**

Tel: (506) 296-3532

Fax: (506) 296-4810

Email: eycolac@amnet.co.cr

### **BUN-CA**

**José María Blanco**

**Gilberth Masís**

**Leonel Umaña**

Tel: (506) 283-8835

Fax: (506) 283-8845

Email: biomass@sol.racsad

### **E&Co**

**en Estados Unidos**

**Phill LaRocca**

**Gina Rodolico**

**Johanna Hjerthén**

Tel: (973) 680-9100

Fax: (973) 680-8066

Email: eco@energyhouse.com

**Hagler Bailly**

**Estados Unidos**

**Keith Kozloff**

Tel: (703) 312-9830

Fax: (703) 351-0360

Email: KKOZLOFF@HaglerBailly

## Representantes Nacionales

### **El Salvador**

**Ana María Gonzalez**

Tel: (503) 273-5138

Email: amgonzalez@telemovil.net

### **Guatemala**

**Jorge Luis Galindo**

Tel: (502) 289-1342

Email: galindoj@terra.com.gt

### **Honduras**

**Patricia Panting**

Tel: (504) 239-6030

Email: panting@hondudata.com

### **Nicaragua**

**María Engracia De Trinidad**

Tel: (505) 270-5448

Email: prolenna@sdninc.org.ni

### **Panamá**

**Orlando Alexis Aguilar**

Tel: (507) 221-7686

Email: aguilarorlando@hotmail.com



**EUN-CA**

Tel: (506) 283-8835  
Fax: (506) 283-8845

**E&Co**

Servicios de Inversión  
en Energía Renovable

Tel: (506) 296-3532  
Fax: (506) 296-4810