A FINAL EVALUATION OF

THE COSTA RICA ENERGY POLICY DEVELOPMENT PROJECT

USAID PROJECT NO. 515-0175

EXECUTIVE SUMMARY

Submitted to:

USAID MISSION - COSTA RICA

Submitted by:

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EXECUTIVE SUMMARY

A. Project Description

The USAID-funded Energy Policy Development Project was designed during late 1980 and early 1981. It was developed in response to the recognition that for Costa Rica to respond to the challenges of both an economic and an energy supply and demand crisis, their capacity to plan and manage the energy sector must be strengthened.

The project had four elements (see Table I-1) and was funded by a $1 million USAID grant and a counterpart contribution of $350,000 by the Costa Rican Government. The agreement was signed in September 1981 and originally scheduled to be completed in September 1983. Several problems including slowness in meeting conditions precedent, a change in government, and subcontractor and subcontracting delays required that the project completion date twice be extended at no increase in grant amount; first to June 1985 and finally to December 31, 1985. Over the course of the project the composition has changed, a number of activities identified in the project paper were eliminated while others were added. The four major project elements, however, remained the same and the new activities were easily categorized as fitting under one of the established elements. Table I-1 presents a summary of the initial, mid-term, and final project composition and the spending levels for each major element.

The Direccion Sectorial de Energia (DSE), established in 1982 under a managing and administrative committee in the Ministry of Industry, Energy and Mines (MIEM), was the project executing agency. DSE was established to provide the capacity to: 1) produce medium- and short-term national energy plans, 2) address short-term problems, and 3) carry out specific projects and investigations, especially in the areas of new and renewable energy and energy conservation. It presently has 14 professionals. In addition to the USAID project it has had funding and support from the United Nations, France, OLADE and Canada. Its operating budget has increased regularly since 1982 when it was approximately 5 million colones. In 1986 its budget

TABLE I-1

MAJOR PROJECT ELEMENTS AND BUDGET ($U.S.)

(USAID Portion)

	SEPTEMBER 1981 ORIGINAL		APRIL 1984 *1 MIDTERM EVALUATION		DECEMBER 1985 *2 FINAL	
	$	%	$	%	$	%
1. Energy Sector Management:						
Project Advisor	175,000		64,000		42,000.00	
Equipment and Office Supplies	13,000		13,000		43,975.29	
Local Rent	15,000		8,400		---	
Vehicle	12,000		14,700		15,906.38	
Personnel and Miscellaneous	10,000		15,500		17,429.65	
SUBTOTAL	225,000	22.5	115,600	11.6	119,311.32	12.1
2. Energy Research and Studies:						
Short-Term Technical Assistance	425,000		654,000		629,152.80	
Information Survey	20,000		20,000		62,000.00	
Computer Time	20,000		2,000		---	
Personnel and Miscellaneous						
SUBTOTAL	465,000	46.5	676,000	67.6	691,152.80	69.9
3. Energy Planning Information:						
Short-Term Technical Assistance	15,000		15,000		20,210.90	
Rent (Documentation Center)	15,000		10,000		---	
Documents and Equipment	60,000		60,000		28,687.28	
Study	10,000				---	
Personnel and Miscellaneous						
SUBTOTAL	100,000	10.0	85,000	8.5	48,898.18	4.1
4. Training and Exchange Program:						
Seminar and Workshop	25,000		13,000		58,653.75	
Exchange and Overseas	30,000		65,400		53,260.13	
Personnel and Miscellaneous					---	
SUBTOTAL	55,000	5.5	78,400	7.8	111,913.88	11.3
Project Evaluation	20,000		20,000		17,653.95	1.6
Contingencies and Inflation	135,000	15.5	25,000	4.5	---	
TOTAL	1,000,000	100.0	1,000,000	100.0	988,930.13	

*1 This includes funds committed but not necessarily disbursed as of March 31, 1984.

*2 Estimated using data as of November 1, 1985.

will be over approximately 24 million colones. In a little over three years DSE has grown in size and influence to where it is a participant in many major energy sector policy matters. The USAID project has provided the major portion of outside funding and activity for the Direccion. Other donors and non USAID-funded activities are beginning to increase.

B. Evaluations

A mid-term evaluation, originally scheduled for September 1983, was delayed until June 1984 in order to present a more complete set of project accomplishments. The evaluation was performed by Energy/Development International (E/DI). E/DI also was the contractor for the final evaluation. The stated purpose of both the interim and the final evaluations was ". . . to determine whether the activities being carried out by the project are adequately focused on meeting the purpose of the project stated as follows: strengthen the Government of Costa Rica's capacity for energy sector planning." Recommendations from this evaluation were, for the most part, accepted. However, implementation was uneven and several were not adopted.

The specific requirements of the final evaluation included:

- An indepth evaluation to assess the GOCR energy sector and the role and accomplishments of DSE in the energy sector;
- A review of the major grant-funded activities; and
- An assessment of the impact of the interim evaluation.

The evaluation was completed between December 1-15, 1985 and included discussions in Spanish and English with USAID, DSE, GOCR and major U.S. subcontractor personnel. Contract files, project progress reports and other documents and deliverables were also reviewed. A major focus of the project was institution building and strengthening.

An analysis of the impact of institution building assistance to a new institution this early in its life must rely on measuring incomplete

growth. Attention was therefore placed on progress and potential with less than usual emphasis being given to actual accomplishments. Many objectives and goals of DSE are still valid and possible and the work completed up to now must be viewed as elements of a larger and longer term activity.

C. Selected Evaluation Findings

On the basis of a two week in-country working period in December 1985 and the knowledge gained from conducting the interim evaluation in June 1984, the following are selected major findings and recommendations of this evaluation.

1. The stated project purpose, to strengthen the Government of Costa Rica's capacity for energy planning, has been achieved even though many of the objectively verifiable indicators of project goal achievement presented in the project paper have not and may never be met.

2. The nature and amount of energy planning capacity strengthening which can be attributed to activities funded by the AID grant has been both different and less than was anticipated.

3. The objectively verifiable indicators of goal achievement presented in the project paper, especially the following two:

- A 6 percent annual growth rate in GDP during the 1985-1990 period; and
- By 1988 achievement of a decrease in the level of imported petroleum to 30 percent of total energy use.

were inappropriate and excessively ambitious for a $1 million energy planning and institution building grant, housed in a new ministry and managed by a new directorate staffed with young and mostly inexperienced personnel. The overall project objective should have been stated in terms of occurrences in the energy sector not the overall economy.

4. The major project accomplishments and contributions (which are substantial) to the strengthening of Costa Rica's capacity for energy planning include:

- Creation of a wholistic description and view of the energy sector and the acceptance of this by other major entities. This is a very important accomplishment and is one of the things necessary for achieving adequate energy sector planning and management.

- There are adequate data for energy sector planning especially on demand and on supply options. The one area where a weakness exists is on important energy sector issues.

- Trained and experienced energy planning professionals now exist in sufficient numbers in MIEM, DSE, RECOPE, SNE, ICE, MIDEPLAN, MOTP, etc. to permit continued energy sector planning. DSE has a number of highly trained and experienced personnel capable of performing continuing energy planning.

- Good working relationships have been built between DSE and other institutions and this forms a basis for continued cooperation.

5. The short-term technical assistance paid for under the grant was almost entirely in the form of consulting contracts to U.S. firms for the major project studies. The effectiveness of this assistance was not what should be expected. There are many reasons for this but one reason in almost every case was that USAID nor the contractor was willing to do what was necessary or felt it important enough to assure that the work was completed in a timely manner. When each case is examined in detail it is evident that many factors contributed to this and each successive time extension could be justified as being reasonable, in the best interests of the project and not likely to cause major problems. It was the sum or totality of those individually defensible time extensions which has affected overall project achievement.

6. One of the major efforts of DSE during the project was to produce a National Energy Sector Plan (PNE), 1986-2006. This was officially expected by October 1984, February 1985, November 1985 and most recently

January 1986. The greatest disappointment (of the evaluator and unofficially of many in the Costa Rican energy sector) is that DSE could and should have been able to produce the PNE but hasn't as of yet and likely won't before some time in 1986. This is not a result of the grant nor for lack of data, project outputs or trained personnel but was caused by many management, political and technical factors.

7. Other major efforts of DSE over the course of the grant were to complete several activities on their own including demand surveys and analyses, annually produce national energy balances, develop an energy information system and develop their own energy planning computer model. In these areas the performance of DSE has been very good.

8. DSE has evolved into a recognized information development and planning group especially in the areas of energy demand and renewable energy sources. They are also involved in contributing data and information to many issue discussion/resolution processes in the energy sector. They have not yet had any identifiable major direct impact on energy policy and until the PNE is issued their ability and status in this area is hard to evaluate.

9. The training and exchange activities have been very effective as measured by the type and number of people involved, the opinions of those trained and the impression of the training program held by others in the energy sector. The actual expenditure for training and exchange is twice what was programmed in the project paper and this money appears to have been very well spent.

10. The interim evaluation performed in June 1984 (18 months before the ultimate PACD) included a major section (7 pages) containing conclusions and recommendations (see Appendix B). The four recommendations specifically for USAID action during the grant period were adopted and two others covering post PACD actions are still valid and are included later as recommendations in this evaluation.

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11. The twelve recommendations for DSE action were considered and of these, two were adopted completely, four were implemented partially and six were rejected or not given sufficient priority to be implemented yet. The implementation of some of these recommendations by DSE may have improved project performance but not substantially.

12. There were four other recommendations for joint USAID/DSE action of which the first three were not adopted. The fourth was a post PACD recommendation which is still valid. The adoption of these recommendations, especially the one relating to continued technical and management support, could have enhanced project and DSE performance.

D. Selected Key Recommendations

Actions Directed Towards Completing Unfinished Grant Activities and Furthering Achievement of Project Goals

1. USAID should immediately define and enforce compliance with strict performance schedules for all contractors who have not fulfilled contract requirements. USAID should assure that final deliverables are of the highest quality and delivered as rapidly as possible. It is important that contractually required quantity and quality measures be applied in these cases.

2. USAID should consider the possibility of providing a technical and management advisor for one additional year to DSE. This advisor could be helpful in completing the acceptance and use of EnVest, contributing to the completion of DSE demand sector surveys and analyses, working on the draft pricing study to see that it is accepted and officially issued, helping complete the NPE and working to see that the results of the industrial energy conservation audit study are useful to DSE and the industries. When this is done, the goals of original project for each of the four elements will have been achieved. If USAID is not interested in funding a full-time advisor following the completion of this project, they

should consider providing project specific short-term technical help for an additional year.

New Funding and Support Initiatives for Logical Next Steps

1. General programmatic and study support will continue to be a priority need for DSE and the energy sector. After the USAID project and the NPE is completed, DSE will have identified several major study needs and will have developed plans and funding requirements for these. Funding for feasibility studies on subjects such as irrigation pumping energy and methodologies for enhancing the development and support of productive uses of rural electrification fall within USAID and GOCR priority areas and should be considered for follow-on funding.

2. USAID should also consider extending programmatic funding support to DSE and other public and private sector entities after the completion of this project in the areas of public information programs, senior personnel training and exchange programs and studies defining needs in areas of energy regulation, standard setting and compliance monitoring and financing.

3. As a follow-on to the industrial energy conservation project USAID should consider providing a loan or grant to help implement the results of the industrial energy conservation audits. This loan fund would help industries purchase capital equipment necessary to achieve recommended and economically appropriate energy conservation.

4. As a follow-on to the transportation conservation measures demonstration project USAID should allocate funding for an expansion of the assistance. The funding would support expanded assistance to the transport sector especially to truck transportation firms to assure the broadest and most rapid introduction and adoption of energy saving measures and procedures.

General Recommendations

1. Inappropriate or excessively ambitious project goals, especially for institution building projects such as this one should be avoided. Project goal setting should be taken seriously and there should be more frequent monitoring by USAID of project performance in relation to achievement of goals. The monthly progress report to USAID by the host country implementing agency should deal with this subject.

2. USAID project and contract managers should require timely contractor performance. When USAID contracts for services to be managed by host country professionals, the U.S. contractors and consultants should be held to a standard of performance which is consistent with the contract. Time and money extensions and funding additions through Purchase Orders should not be granted without serious consideration of the implications to meeting project goals.

3. Interim project evaluations should be made a part of a process whereby USAID and the host country agency are required to formally adopt, define approaches to accomplish and track compliance with recommendations. Both interim and final project evaluations should be staffed by and involve active participation of at least two persons.

E. Development Impact

The project was expected to directly contribute to the improvement of the economy in Costa Rica. This type of impact from an institution building project in one sector of the economy is difficult to verify. The more important development impact of this project will be the enhancement of planning and implementation of development projects as a result of the support provided to DSE and the training gained by professionals in other institutions. It will also be easier to evaluate development impact when the NPE is produced and after February 1986 when the elections have been completed. The position and programs of the new government and DSE will reflect the success of the grant in influencing development.

F. Lessons Learned

There are a number of generally important lessons which can be learned from this project. Many of these were presented in the findings and recommendations section of the report. In order to highlight what appears to be the two most important, they are repeated here: Even though Costa Rica has a very sophisticated and highly educated cadre of professionals and many of the institutions are very experienced, it is still necessary to provide continuous technical and management support in development projects. In this particular project the project paper planning for the supply of a senior advisor for only two of the three project years appears to have been a mistake. This mistake was exacerbated by DSE in their management of the project. They adopted this project paper strategy during the last project year and also did not use recommended (mid-term evaluation) short-term technical and managerial assistance. The time was short and completion of elements was in doubt. However, DSE chose not to look outside for assistance and support. This is a common tendency in any agency in any country.

Because of the above it is important to emphasize the continuous presence of technical and management advisory services, especially in institution building projects. The scheduling of services in the first project years overlooks the critical need for mature management judgement at project end. Very difficult resource management and technical judgements are made as a project is completed. This is often a period of stress, too little time and too much work, and of problems not encountered previously. The value of senior advisory capability at this time is easily equivalent to that at the start of a project. Therefore, the most important generally applicable lesson learned in this project is that technical and management assistance must be assured throughout a project.

In addition to this one major lesson, there is one other worth noting. The problems resulting from excessively settling ambitious goals and objectives were obvious in this project and the universality of this tendency is probably the second most important lesson learned. This is not uncommon in projects and is the result of many factors. Most people who

write project papers are often not responsible for their execution. It is also well known that if projects, especially grants and those involving institution building, are not described as producing significant results they will have a very difficult time being approved. These pressures, as well as the enthusiasm of host country and USAID professionals in the beginning of a project preparation process, tend to create very high performance expectations. This should be tempered or USAID should be willing to provide additional assistance, if necessary, to see that ambitious project expectations are met.