

GEF EO Terminal Evaluation Review Form

1. PROJECT DATA				
			Review date:	October 2006
GEF Project ID:	60		at endorsement (Million US\$)	at completion (Million US\$)
IA/EA Project ID:	18	GEF financing:	3.30	Not in TE
Project Name:	Tejona Wind Power	IA/EA own:		
Country:	Costa Rica	Government:		
		Other*:		
		Total Cofinancing	28.00	Not in TE
Operational Program:	6	Total Project Cost:	31.30	Not in TE
IA	WB/IADB	<u>Dates</u>		
Partners involved:	Instituto Costarricense de Electricidad (ICE) or Institute of Electricity	Work Program date		12/01/1992
		CEO Endorsement		n/a
		Effectiveness/ Prodoc Signature (i.e. date project began)		11/24/1995
		Closing Date	Proposed: 01/17/1999	Actual: 12/31/2002
Prepared by: Anna	Reviewed by: Aaron	Duration between effectiveness date and original closing: 3 years 1 month	Duration between effectiveness date and actual closing: 7 years 1 month	Difference between original and actual closing: 4 years
Author of TE: ICE		TE completion date: 04/07/2005	TE submission date to GEF EO: 04/08/2005	Difference between TE completion and submission date: none

* Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

2. SUMMARY OF PROJECT RATINGS

GEF EO Ratings for project impacts (if applicable), outcomes, project monitoring and evaluation, and quality of the terminal evaluation: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU), not applicable (N/A) and unable to assess (U/A). GEF EO Ratings for the project sustainability: Highly likely (HL), likely (L), moderately likely (ML), moderately unlikely (MU), unlikely (U), highly unlikely (HU), not applicable (N/A), and unable to assess (U/A). Please refer to document "Ratings for the achievement of objectives, sustainability of outcomes and impacts, quality of terminal evaluation reports and project M&E systems" for further definitions of the ratings.

	Last PIR (2002)	IA Terminal Evaluation	Other IA evaluations if applicable (e.g. IEG)	GEF EO
2.1 Project outcomes	S	N/A	N/A	S
2.2 Project sustainability	N/A	N/A	N/A	U/A
2.3 Monitoring and evaluation	N/A	N/A	N/A	U/A
2.4 Quality of the evaluation report	N/A	N/A	N/A	HU

Should this terminal evaluation report be considered a good practice? Why? No. The TE provides an assessment of the project's achievements, but is weak in its analysis of outcomes and impact.

Analysis of the sustainability of outcomes and impact, the M&E system, actual project costs, and lessons are missing. The TE has a section on future funding which is interesting, but not useful for the assessment of the project. It seems that this report is not intended as a terminal evaluation for the WB/IDB and the GEF.

Is there a follow up issue mentioned in the TE such as corruption, reallocation of GEF funds, etc.? **No.**

3. PROJECT OBJECTIVES, EXPECTED AND ACTUAL OUTCOMES

3.1 Project Objectives

- **What are the Global Environmental Objectives? Any changes during implementation?** **No.**

The overall objective is to improve the environment by reducing the consumption of fossil fuels for energy production. Achieving the development objectives will support further development of wind energy technology in the region, and thus reduce emissions from fossil-fuel-fired power plants. (Prodoc)

- **What are the Development Objectives? Any changes during implementation?** **No.**

1. Demonstration of wind energy technology in the high-wind and heavy-precipitation environment experienced in Costa Rica and other Central American sites.
2. Familiarization of a major regional utility with how wind energy will integrate into their generation system.
3. Familiarization of a major regional utility with the operation and maintenance of a wind power plant. (Prodoc)

3.2 Outcomes and Impacts

- **What were the major project outcomes and impacts as described in the TE?**

According to The TE thirty wind turbine generating units (660 KW each) with the potential of 20 MW have been installed by the project. The turbines are connected to the grid and the first 18 became commercially operational in February 2002 and the remainder in June 2002. According to the TE the generation capacity is around 100 GWh, sufficient to supply 25,000 families.

4. GEF EVALUATION OFFICE ASSESSMENT

4.1 Outcomes

A Relevance

Rating: **S**

- **In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies? Explain.**

The project's outcomes are consistent with OP6 strategies. The installed turbines are producing electricity and the project has demonstrated that this renewable energy technology can be viable.

B Effectiveness

Rating: **S**

- **Are the project outcomes as described in the TE commensurable with the expected outcomes (as described in the project document) and the problems the project was intended to address (i.e. original or modified project objectives)?**

The TE does not discuss outcomes other than the installation of the turbines and associated facilities. There is no analysis of the local utility's familiarization with wind energy and operation and maintenance of a wind power plant.

According to the GEF Country Portfolio Evaluation the Tejona pilot project paved the way for wind energy generation in Costa Rica. It provided a valuable opportunity to conduct trials, train local technicians, and determine cost and revenue streams with some precision. It also addressed critical issues such as how to connect with a national power grid fed from a variety of hydroelectric, thermoelectric, geothermal and other sources.

C Efficiency (cost-effectiveness)

Rating: **U/A**

- **Include an assessment of outcomes and impacts in relation to inputs, costs, and implementation times based on the following questions: Was the project cost – effective? How does the cost-time Vs. outcomes compare to other similar projects? Was the project implementation delayed due to any bureaucratic,**

administrative or political problems and did that affect cost-effectiveness?
The project did experienced implementation delays early on and even suspended for a period. According to the TE the delays were caused by the central government's reluctance to invest in the project because of the poor macroeconomic situation of the country. Due to the expenditure restrictions alternative implementation schemes were then explored. In 1997 it was decided to develop the project under a leasing scheme. The TE does not provide project costs by component. Costs of equipment are mentioned.

D Impacts
<ul style="list-style-type: none"> • Has the project achieved impacts or is it likely that outcomes will lead to the expected impacts? <p>The TE does not include any figures on avoidance of GHG emissions as a result of the project.</p> <p>According to the GEF Country Portfolio Evaluation the impact of the 20 MW Tejona Wind Energy Project cannot be measured solely in terms of carbon dioxide emissions avoided. Following on Tejona's footsteps, utilities such as the Compañía Nacional de Fuerza y Luz, COOPESANTOS, Empresa de Servicios Públicos de Heredia and COOPEGUANACASTE have commissioned wind energy facilities that have tripled the country ' s installed capacity. Nowadays 6 percent of Costa Rica's energy needs are supplied by wind power. The expected ceiling is 15 percent.</p>

4.2 Likelihood of sustainability. Using the following sustainability criteria, include an assessment of **risks** to sustainability of project outcomes and impacts based on the information presented in the TE.

A Financial resources	Rating: U/A
The TE does not analyze the financial sustainability of the project. This is particularly important given that 15 of the 20 MW installed capacity is produced by 22 wind turbines (of a total of 30 installed turbines) that the local electric utility is renting for five years. At the end of this period, the local utility may purchase the 22 turbines or request the contractor to remove them (and just keep the 8 that the local utility owns). Their decision would be influenced by the cost to produce electricity using wind power compared to using fossil fuels.	
The TE does discuss a funding from the Netherlands that reduces the risk to financial sustainability of project outcomes.	
B Socio political	Rating: U/A
The TE does not discuss socio political issues.	
C Institutional framework and governance	Rating: U/A
The TE does not report on the institutional framework or governance.	
D Environmental	Rating: U/A
The TE does not report on the environmental impact.	

Provide only ratings for the sustainability of outcomes based on the information in the TE:

A Financial resources	Rating: U/A
B Socio political	Rating: U/A
C Institutional framework and governance	Rating: U/A
D Environmental	Rating: U/A

4.3 Catalytic role

1. Production of a public good - None.
2. Demonstration - The project demonstrated a technology new to Costa Rica.
3. Replication - Other utilities followed on Tejona's footsteps and have commissioned wind energy facilities that have tripled the country's installed capacity. Operational data on the project could be made available to benefit future projects
4. Scaling up - None.

4.4 Assessment of the project's monitoring and evaluation system based on the information in the TE

<p>A. In retrospection, was the M&E plan at entry practicable and sufficient? (Sufficient and practical indicators were identified, timely baseline, targets were created, effective use of data collection, analysis systems including studies and reports, and practical organization and logistics in terms of what, who, when for the M&E activities)</p>	<p>Rating: U/A</p>
<p>No information about the M&E plan is provided in the TE.</p>	
<p>B. Did the project M&E system operate throughout the project? How was M&E information used during the project? Did it allow for tracking of progress towards projects objectives? Did the project provide proper training for parties responsible for M&E activities to ensure data will continue to be collected and used after project closure?</p>	<p>Rating: U/A</p>
<p>No information about the M&E system is provided in the TE.</p>	
<p>C. Was M&E sufficiently budgeted and was it properly funded during implementation?</p>	<p>Rating: U/A</p>
<p>No information about the M&E budget is provided in the TE.</p>	
<p>Can the project M&E system be considered a good practice? No. There is no information on the M&E system in the TE.</p>	

4.5 Lessons

Project lessons as described in the TE

<p>What lessons mentioned in the TE that can be considered a good practice or approaches to avoid and could have application for other GEF projects?</p>
<p>There are no lessons included in the TE.</p>

4.6 Quality of the evaluation report Provide a number rating 1-6 to each criteria based on: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, and Highly Unsatisfactory = 1. Please refer to the "Criteria for the assessment of the quality of terminal evaluation reports" in the document "Ratings for the achievement of objectives, sustainability of outcomes and impacts, quality of terminal evaluation reports and project M&E systems" for further definitions of the ratings.

<p>4.6.1 Comments on the summary of project ratings and terminal evaluation findings</p>
<p>In some cases the GEF Evaluation Office may have independent information collected for example, through a field visit or independent evaluators working for the Office. If additional relevant independent information has been collected that affect the ratings of this project, included in this section. This can include information that may affect the assessment and ratings of sustainability, outcomes, project M&E systems, etc.</p>
<p>From The GEF Country Portfolio Evaluation - Costa Rica (1992-2005)</p> <p>Tejona Wind Project</p> <p>ORIGINS: Following a dramatic increase in world oil prices that hit Costa Rica hard, in the mid-'70s the Costa Rican Electricity Institute (ICE) set out to consider various renewable energy options. These included wind energy generation in Lago Arenal, an area of the northern Central Volcanic Mountain Range noted for strong, constant winds. ICE's first step was to set up wind gauging stations in several parts of the country. These soon confirmed the region's enormous wind power generation potential, estimated to surpass that of California's well-known wind farms. By 1989 ICE was ready to seek assistance for a pilot site in Tejona. Based on the encouraging results of a pre-feasibility study conducted in 1990 with USAID funding, the ICE secured World Bank and IADB support for a GEF project to complement the main IADB investment in a pilot wind energy plant at Tejona. Due to a number of reasons, IADB funding was later replaced by a Clean Development Mechanism Joint Implementation grant from the Netherlands.</p>

RESULTS: The Tejona pilot project paved the way for wind energy generation in Costa Rica. It provided a valuable opportunity to conduct trials, train local technicians, and determine cost and revenue streams with some precision. It also addressed critical issues such as how to connect with a national power grid fed from a variety of hydroelectric, thermoelectric, geothermal and other sources. The impact of the 20 MW Tejona Wind Energy Project cannot be measured solely in terms of carbon dioxide emissions avoided. Following on Tejona's footsteps, utilities such as the Compañía Nacional de Fuerza y Luz, COOPESANTOS, Empresa de Servicios Públicos de Heredia and COOPEGUANACASTE have commissioned wind energy facilities that have tripled the country's installed capacity. Nowadays 6 percent of Costa Rica's energy needs are supplied by wind power. The expected ceiling is 15 percent.

4.6.2 Quality of terminal evaluation report	Ratings
A. Does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? A clear assessment of all outcomes and impacts is missing. The TE only discusses installation of the turbines.	U
B. Is the report internally consistent, is the evidence complete/convincing and are the IA ratings substantiated? It is difficult to determine the internal consistency of the TE with so much information missing. The TE does not have any ratings.	U/A
C. Does the report properly assess project sustainability and /or a project exit strategy? A thorough sustainability analysis is missing from the report. It does discuss funding from the Netherlands that contributes to the sustainability of the project.	U
D. Are the lessons learned supported by the evidence presented and are they comprehensive? No lessons are included in the TE.	HU
E. Does the report include the actual project costs (total and per activity) and actual co-financing used? Project costs by component are not reported in the TE. Only costs of equipment are mentioned.	U
F. Does the report present an assessment of project M&E systems? A discussion of the M&E system is missing in the TE.	HU

4.7 Is a technical assessment of the project impacts described in the TE recommended? Please place an "X" in the appropriate box and explain below.

Yes:	No:
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Explain: It is not possible to make a recommendation based on the TE. It seems to have been an interesting project that could provide lessons to future wind projects.

4.8 Sources of information for the preparation of the TE review in addition to the TE (if any)

Project document, PIR 2002, The GEF Country Portfolio Evaluation - Costa Rica (1992-2005)