

PROJECT IDENTIFICATION FORM AND REQUEST FOR CEO APPROVAL PROJECT TYPE: Medium-sized Project THE GEF TRUST FUND

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID:

GEF AGENCY PROJECT ID:

COUNTRY(IES): Haiti

PROJECT TITLE: Emergency program for solar power generation and lighting for Haiti, as a consequence of the Earthquake in Port au Prince.

GEF AGENCY(IES): Inter-American Development Bank (IDB) and the World Bank (WB)

OTHER EXECUTING PARTNER(S):

GEF FOCAL AREA(S): Climate Change

GEF-4 Strategic program(S): CC-SP3

NAME OF PARENT PROGRAM/UMBRELLA PROJECT: $\ensuremath{N/A}$

Submission Date: January 15th, 2010 Re-submission Date: January 19, 2010

Expected Calendar				
Milestones	Dates			
Work Program (for FSP)	N.A.			
GEF Agency Approval	Jan 2010			
Implementation Start	Feb 2010			
Mid-term Review (if planned)	N.A.			
Implementation Completion	Aug 2010			

A. **PROJECT FRAMEWORK** (Expand table as necessary)

Project Objective: To support the country's emergency responses to the Port au Prince Earthquake by providing autonomous energy and lighting using solar applications.

Project Components	Invest -ment, TA or	Expected Outcomes	Expected Outputs	Indic GF Finar	EF		ative ancing	Total \$'000
Ĩ	STA			\$'000	%	\$'000	%	
1. Solar application for power generation (managed and procured by IDB)	Inv	Power obtained for the operation of medical centers, refrigeration of vaccines, operations of relief services, operation of key buildings, etc.	 Solar power generator installed and operative in Port au Prince in the most necessary establishments where power is required. Solar powered refrigerators (or traditional which would be powered by the solar generators) to conserve vaccines. 	500	44%	640	56%	1140
	ТА	Capacity created for the operation of the solar power generators	 Transport generators from manufacturer to Port au Prince and installation of solar power generators Train operators to use and maintain power generators 	0	0%	260	100 %	260
2. Solar and hand- crank portable lanterns (managed and procured by WB)	Inv	Lighting contributes to increase security in refugee camps, additional	Solar and/or hand- crank lighting installed and operative in Port au Prince in the most necessary areas where lighting is required.	500	42%	700	58%	1200

1. Develop local delivery scheme and train operators to use and maintain solar power lighting Project management Total project costs	0 0 1,000	0%	200 200 2 ,000	% 100 %	200 200 3,000
Project scheme and train operators to use and maintain solar power lighting				%	
scheme and train operators to use and maintain solar power lighting	0	0%	200		200
families reside, and other relevant areas for addressing urgent, post- disaster needs in Port au Prince and other affected areas that are not yet known1. Transport solar lighting systems from manufacturer to Port au Prince and installation of solar power lighting				100	200

B. FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Project Preparation	Project	Agency Fee	Total
GEF	0	1,000,000	100,000	1,100,000
Co-financing	0	2,000,000		2,000,000
Total	0	3,000,000	100,000	3,100,000

C. SOURCES OF CONFIRMED <u>CO-FINANCING</u>, including co-financing for project preparation for both the PDFs and PPG. (expand the table line items as necessary)

Name of co-financier (source)	Classification	Туре	Amount (\$)	% *
IDB-SECCI	Multilateral Agency	Grant	1,000,000	50
World Bank	Multilateral Agency	Grant	1,000,000	50
Total Co-financing			2,000,000	100

D. GEF RESOURCES REQUESTED BY FOCAL AREA(S), AGENCY(IES) OR COUNTRY(IES)

~~~ /		Country Name/		(in \$	)	
GEF Agency	Focal Area	Global	Project Preparation	Project	Agency Fee	Total
World Bank	Climate Change	Haiti	0	500,000	50,000	550,000
IDB	Climate Change	Haiti	0	500,000	50,000	550,000
Total GEF Resor	urces		0	1,000,000	100,000	1,100,000

* No need to provide information for this table if it is a single focal area, single country and single GEF Agency project.

#### E. PROJECT MANAGEMENT BUDGET/COST

Cost Items	Total Estimated person weeks	GEF (\$)	Other sources (\$)	Project total (\$)
Project managers (2) (IDB & WB)	40	0	120,000	120,000
Logistics and supplies		0	35,000	35,000
Travel		0	15,000	15,000
Contingencies		0	30,000	30,000
Total		0	200,000	200,000

#### F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Estimated person weeks	GEF(\$)	Other sources (\$)	Project total (\$)
International consultants (IDB only)	8	0	20,000	20,000
Local consultants/staff (IDB & WB)	75		45,000	45,000
Total	83	0	65,000	65,000

* See detailed information regarding the consultants in Annex A.

#### G. DESCRIBE THE BUDGETED M&E PLAN:

The Monitoring and Evaluation (M&E) of the outputs and outcomes presented in the Project Results Framework (Annex B).

# PART II: PROJECT JUSTIFICATION

# A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED:

The Port-au-Prince earthquake of 7.0 magnitude (Richter scale), which occurred on January 12, 2010, has been declared as the most severe natural disaster in the last 200 years due to its intensity, the damage incurred and the extent of affected areas. Haiti is the poorest country in the Western hemisphere. The center of the earthquake was located 15 kilometers off the most populated center of the country, Port-au-prince. Currently, almost 3 million people have been displaced by the earthquake; as of January 14th approximately 7,000 people have been confirmed dead with thousands more feared to have died. Among destroyed facilities are the Presidential Palace, the UN building, the Montana Hotel, among thousands of other facilities. Along with the human causalities and physical damages, the post-earthquake environment is expected to be chaotic due to lack of facilities and infrastructure to manage displaced people as well as the dead, currently lying in the streets.

In response to the magnitude of the event and due to the current conditions in the country, the IDB and the World Bank have recognized that there are immediate needs to provide support for the survivors as well as for the facilities that will manage the people affected by the event. About 3 million displaced people are without power. EDH, the local electricity company, has very limited resources in the face of trying to provide services to critical energy users at this time: pre-existing conditions as well as crisis management requirements suggest that it is necessary to provide emergency response to shelters, hospitals, water management facilities, and schools in a sustainable manner. Given current conditions and very scarce existing resources, it will take at least one or two years to achieve pre-earthquake infrastructure and energy provision conditions.

As initial screening indicates that the destruction is almost total, the provision of emergency and sustainable lighting will be key in the process of stabilizing basic services in the country. The proposed project's support will be concentrated in Port-au-Prince and Jacmel, both cities that were hard hit by the earthquake. If

necessary, other severely affected areas for which information is not yet available may be included in the project.

The project's objective is to support the country's emergency responses to the Port au Prince earthquake on Jan 12, 2010 by providing autonomous energy and lighting using solar applications. By supporting local authorities in the provision of sustainable and clean energy at this time of crisis, the project will not only help to provide basic services in a great time of need using sustainable sources, but will also mitigate risks of energy provision to human health. As a result it will contribute to the stabilization of the country, enabling Haiti to better manage current human health and infrastructure needs. The project will be complemented by other donors and activities, such as the Sustainable Energy and Climate Change Initiative (SECCI) of the IDB and the World Bank, each contributing US\$ 1 million.

This project has two main components: (i) the acquisition of solar power generators, to provide energy for emergency centers, medical units, refugee camps, etc. and solar power refrigerators for vaccine conservation (or traditional refrigerators that could use solar power electricity for its operations) and (ii) the acquisition of solar power and/or hand-crank lighting systems to illuminate the most sensitive areas (according to the United Nations (UN) relief services, Red Cross or Haitian Government) of Port au Prince by night, which will immediately improve quality of life for families and injured individuals through improved care. These portable lanterns can also be used as cell phone chargers and power sources for radio, therefore contributing to essential communication to coordinate efforts at the ground level.

There is an important environmental benefit associated with this project. As an important part of the energy matrix of Port au Prince is fossil fuel-based, any substitution with renewable energy (in this case solar power) will generate carbon emission reductions. In the current post-earthquake context, the breakdown of the grid does not allow for use of the renewable electricity provided by the unique hydropower plant, Peligre, and therefore the baseline for lighting becomes exclusively very inefficient fuel-based systems like small individual generators, kerosene lamps, candles, or even non-renewable biomass (i.e. wood fire cutting the last trees in the city). Moreover, the value added of the project is the portability of the generators and lighting without the limitation of requiring fuel (currently very scarce) for the operation.

## **B.** Describe the consistency of the project with national priorities/plans:

The proposed project is consistent with the top national priority for recovery and reconstruction of the earthquake-affected area in Haiti.

## C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH <u>GEF STRATEGIES</u> AND STRATEGIC PROGRAMS:

The proposed project is a short-term response measure (STRM) under the Climate Change window of the GEF. The main focus of the project is to contribute immediate aid for disaster management by providing easily mobile and sustainable power and light in Port au Prince and Jacmel. It is also consistent with GEF Strategic Program 3, which focuses on supporting growth of renewable energies in relevant markets. Using renewable energies to respond to the aftermath of the Haitian earthquake will contribute to reducing CO2 emissions (as opposed to providing emergency services using fuel-based energies) and will provide an opportunity to prove the usefulness of such technologies for critical disaster management services (i.e. medical centers, relief services, lighting to improve security and quality of care).

## **D.** JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES:

The GEF grant will provide the needed investments to complement contributions from the WB and the IDB in order to not only provide but also train operators in installation and operation of solar-powered generators and lighting for earthquake-affected areas in Haiti. At this time when Haiti faces great disaster management, reconstruction and development challenges, a GEF grant serves as a mechanism to ensure: (i) provision of needed basic services during disaster management and reconstruction, (ii) use of renewable energy sources that are both disaster management- and

environment-friendly, and which will contribute to short-term and long-term reconstruction and development challenges, and (ii) leverage and channel support from additional donors.

#### E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

The IDB and the WB have established an energy team to coordinate emergency response activities undertaken by the two institutions in the energy sector. This project has been included in the both institutions' initial responses for assessing the energy sector's reconstruction and recovery needs in the earthquake area, particularly for power generation and lighting. Results of this project will help the IDB and the WB organize their follow-up investment actions.

The joint preparation and execution of this project by the IDB and the WB will enhance the coordination of this project with further investment and technical assistance support that will follow after the emergency responses in the energy sector. In addition, IDB and WB will coordinate activities of this and other ongoing energy related disaster responses and recovery activities, and will promote information exchange with other disaster responses activities.

# F. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING :

The GEF is an effective instrument to mobilize resources in a prompt and expedient way to the areas affected by natural disasters. This was the case for the earthquake that occurred in Wenchuan, China in 2008. This time the magnitude of the Haitian disaster is even larger. Moreover, GEF resources make possible the incorporation of an innovative and unique solution to energy infrastructure challenges post-earthquake. Without this incremental investment, fewer solar power generators, refrigerators, and lighting systems would be available to assist relief efforts. The GEF incremental investment therefore will provide renewable and reliable energy sources to substantially more emergency response services and thus Haitians in need.

# G. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED, AND IF POSSIBLE INCLUDING RISK MEASURES THAT WILL BE TAKEN:

<u>External Risks</u>. The success of this project will be heavily affected by external risks associated with the overall disaster relief and recovery operations. The first external risk for this project is accessibility to identified sites. There are still frequent aftershocks in the earthquake area, causing massive damage to the roads and communication systems in the mountainous areas. It has been reported that this risk has significantly increased the time needed for travel, and has also damaged vehicles carrying environmental monitoring equipment.

The second external risk is epidemic outbreaks. The occurrence of such events would seriously delay the implementation of this project.

<u>Project Risks.</u> The first risk is related to the capacity of the Haitian Authorities, local government officials from Port au Prince and the EDH. The pervasive damages generated by the earthquake generated high demands on Haitian staff for emergency environmental and energy responses that will exceed available manpower of these agencies and prevent them from carrying out activities that will be necessary for project activities as planned. To mitigate this risk, necessary environmental and energy personnel will be contracted, if needed, to ensure sufficient manpower for project activities.

Health and safety risks to field investigators and analysts from monitoring stations due to their exposure to hazardous substances also need to be considered. To mitigate this risk, training on personal safety procedures and provision of personal protection equipment will be provided to all field personnel.

#### H. DESCRIBE, IF POSSIBLE, THE EXPECTED <u>COST-EFFECTIVENESS</u> OF THE PROJECT:

The cost effectiveness of this project is expected to be very high, as there is literally no power currently up and running and the situation could remain like this for weeks. Therefore, the sooner the equipment is deployed the higher is the cost effectiveness and value added of this project.

#### I. JUSTIFY THE <u>COMPARATIVE ADVANTAGE</u> OF GEF AGENCY:

Both the IDB and the World Bank have extensive histories of cooperation with Haiti through loans and grant financing in all sectors and in the energy sector in particular. The IDB has more than US\$ 30 million approved in the restoration

of the Peligre Dam and rehabilitation of the distribution network of Port au Prince. The World Bank is currently managing a US\$ 11 million grant project to reduce electricity losses. This proposed project is an integral part of the effort of both Banks in supporting the Haitian Government in their response to the Port au Prince Earthquake.

# PART III: INSTITUTIONAL COORDINATION AND SUPPORT

#### A. PROJECT IMPLEMENTATION ARRANGEMENT:

Because of the current situation, there is only very limited capacity in Haiti to execute this project. Therefore the Energy Division of the IDB in coordination with IDB Country Office personnel in Haiti, will execute Component 1 of this GEF project and counterpart funding provided by IDB-SECCI.

Component 2 – which requires less technical skills, but will still require organizational skills and capacity in Port au Prince to reach out the targeted beneficiaries – will be executed together by the WB and EDH.

The Energy Division of the IDB will procure the goods and services described in this project for component 1, as well as the transportation of the goods to Haiti, and will subcontract the installation and training required to have the solar generators operational.

The Energy Sector of the WB will procure the goods and services described in this project for component 2, as well as the transportation of the goods to Haiti, and will subcontract the installation and training required to have the portable solar and/or hand crank lanterns distributed and operational.

Whenever possible, procurement, transportation, installation/distribution and capacity building associated to components 1 and 2 will be coordinated.

A project manager will be hired to facilitate the installation of the equipment under component 1(financed by IDB) in coordination with the UN relief operations and the Red Cross and World Bank.

A project manager will be hired to facilitate the execution of component 2 (financed by WB) in coordination with the UN relief operations and the Red Cross and IDB.

#### **PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:** Not applicable.

## PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for CEO Endorsement.

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# ANNEX A: CONSULTANTS TO BE HIRED FOR THE PROJECT

\$/ person week	Estimated person weeks	Tasks to be performed
		Management and admonition of the
3,000	20	project on site.
		Installation and start up for the solar
		power generator and training local
		personnel for the operation and maintenance.
		maintenance.
• • • •		
2,500	8	
	_	
		Distribution and safeguarding solar powered generators and refrigerators.
		Providing day-to-day monitoring of
500	60	equipment operation.
		Management and admonition of the
3,000	20	project on site.
5,000	20	
		Distribution of the portable lanterns
		and training of users.
1.000	15	
-,		
	<i>person week</i> 3,000 2,500	person week         person weeks           3,000         20           2,500         8           500         60           3,000         20

ANNEX B: PROJECT RESULTS FRAMEWORK					
PDO	<b>Outcome Indicators</b>	Use of Outcome Information			
To support emergency	1. Disaster management- and	1. Baseline experience for			
responses to the Port au	environment-friendly power	use of solar power			
Prince Earthquake by	provided for emergency	technologies in disaster			
providing autonomous	response services	response and			
energy and lighting using	I I	management			
solar applications.		2. Recovery and			
11		reconstruction actions			
		3. Public information			
		disclosure			
Intermediate Results	<b>Results Indicators</b>	Use of Results			
One per Component	for Each Component	Monitoring			
Component One:	Component One:	Component One:			
Solar Application for power generation (to be	1. # solar power generators and refrigerators installed and	1. Provide baseline experience for future			
management and monitored	operative	applications of solar			
by IDB)	2. # buildings/service providers	powered generators (in			
	using solar power	Haiti and other countries)			
	generators/refrigerators to	2. Contribute to future solar			
	provide emergency services	power applications in			
	3. # MWh produced by solar	reduction of CO2			
	powered generators and	emissions (during			
	refrigerators	reconstruction and in			
	4. # operators trained to use and	response to other natural			
	-	disasters)			
Component Two	maintain solar generators	<i>,</i>			
<b>Component Two:</b> Solar and hand-crank	<b>Component Two:</b> 1. # solar and/or hand-crank	<b>Component Two:</b> 1. Provide baseline			
portable lanterns (to be	lighting installed and	experience for future			
managed and monitored by	operative	applications of			
WB)	2. # operators trained to use	solar/hand-crank lighting			
	and maintain solar lighting	systems (in Haiti and			
	systems	other countries)			
		2. Contribute to future			
		solar power applications			
		in reduction of CO2			
		emissions (during			
		reconstruction and in			
		response to other natural			
		disasters)			

# ANNEX B: PROJECT RESULTS FRAMEWORK

# ANNEX C: PROJECT TEAM REPONSES TO COMMENTS

# At CEO Endorsement – January 19, 2010

## Council Member: The Netherlands

#### Comment:

The costs for the project manager comes down to 8,000 USD per week which is unacceptable for us. It cannot be explained in reasonable terms to the general public.

## Response:

The inconsistency in project manager costs has been corrected. Updated costs indicate \$3,000/wk for each of the two project managers. The team feels that this reasonable given the hardship conditions that currently exist.

#### Comment:

The projection of equipment against theft in connection with the safety situation needs more attention in the perspective of the sustainability of the investment.

#### Response:

Project management and contingency funds take into consideration the costs to provide protection of equipment theft on an as-needed basis. In addition, local assistants/consultants hired will provide monitoring assistance to ensure that theft does not occur.

## Comment:

The public awareness campaign in this crisis situation seems to be not very useful.

## <u>Response:</u>

The public awareness component has been removed. These funds were originally intended to function on an "as-needed" basis for additional training, capacity-building and awareness-raising regarding solar-powered equipment and its use, not necessarily for wide public outreach. Since original component 3 funds were provided by the IDB, they have been reallocated to component 1 in order to serve their originally intended purpose and to reduce confusion.