

# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Medium-sized Project TYPE OF TRUST FUND: GEF Trust Fund

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## **PART I: PROJECT INFORMATION**

Project Title:	Energy Efficiency Improvement in the	e Honduran Hotel Industry	
Country(ies):	Honduras	GEF Project ID: <sup>1</sup>	5446
GEF Agency(ies):	UNDP(select)(select)	GEF Agency Project ID:	5061
Other Executing Partner(s):	National Secretariat of Natural	Submission Date:	2013-05-24
	Resources & Environment	1 <sup>st</sup> Resubmission Date:	2013-12-02
	(SERNA), National Chamber of	2 <sup>nd</sup> Resubmission Date:	2014-03-21
	Tourism Honduras (CANATURH)		
GEF Focal Area (s):	Climate Change	Project Duration (Months)	36
Name of parent program (if		Agency Fee (\$):	116,712
applicable):			
• For SFM/REDD+ □			
• For SGP □			

## A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co- Financing (\$)
CCM-2 Promote market transformation for energy efficiency in industrial and building sectors	GEFTF	1,228,538	8,345,000
Total Project Cost		1,228,538	8,345,000

### **B.** INDICATIVE PROJECT FRAMEWORK

Project Objective: To remove the barriers to the increased commercial use of energy efficient electrical equipment in the small and medium-sized Honduran hotel industry

<b>Project Component</b>	Grant Type <sup>3</sup>	<b>Expected Outcomes</b>	<b>Expected Outputs</b>	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing( \$)
1. Sustainable Tourism Low Emission Policies	TA	1. Energy efficiency (EE) enabling policy framework enforced and technical capacity strengthened in the Honduran hotel industry	1.1. Established national energy efficiency policy and operationalized a Honduran hotel energy efficiency scheme in compliance with minimum energy performance standards for appliances (implementation of conformity assessment procedures for EE equipment, design of EE scheme design, establishment of EE reference and benchmarks through EE audits / evaluations)	GEFTF	341,000	2,500,000

<sup>&</sup>lt;sup>1</sup>Project ID number will be assigned by GEFSEC.

<sup>&</sup>lt;sup>2</sup>Refer to the reference attached on the <u>Focal Area Results Framework</u> when completing Table A.

<sup>&</sup>lt;sup>3</sup> TA includes capacity building, and research and development.

			1.2. Completed capacity			
			development for key			
			stakeholders on			
			electricity use, energy savings and GHG			
			mitigation (hotel energy			
			audit trainings, pilot			
			project site evaluations)			
2. Sustainable Tourism	TA	2. Commercially-driven	2.1. Established green	GEFTF	250,000	2,500,000
Low Emission		investment in energy	incentive scheme (incl.			
Funding		efficient equipment and	operating or financial			
		technology for the hotel industry mobilized (grant	leasing, micro insurance, credit and savings			
		and non-grant	guarantees, energy			
		mechanisms)	performance			
			contracting, amongst			
			others) for energy			
			efficiency projects in			
			the hotel industry			
	Inv		2.2. Portfolio of 9 pilot		300,853	2,600,000
			projects at feasibility level with funding plans			
			to implement energy			
			efficiency measures			
			targeting 3 hotel types			
			(small, medium and			
			large) in each of the 3			
			geographical areas (urban, island and			
			industrial) with an			
			average energy			
			consumption ranging			
			50-60 kWh/ month /			
			room, with different			
			surveyed * consumption patterns <i>per hotel type</i> :			
			patterns per noiei type.			
			- <u>Large</u> with more than			
			50 rooms (5,111			
			kWh/year)			
			- Medium with 16 to 49			
			rooms (673 kWh/year)			
			(			
			- Small with less than			
			15 rooms (259			
			kWh/year)			
			; including but not			
			limited to the following:			
			= 00			
			- Efficient lighting (e.g.			
			HPS / CFL / LED retrofits, linear lamp /			
			electronic ballast			
			replacements)			

3. Sustainable Tourism Low Emission Knowledge		3. Increased practice and application of energy efficient technologies in the Honduran hotel industry	- Air conditioning (e.g. high EER equipment, water-cooled plants)  - EE alternatives (e.g. efficient cooling and water heating)  (Note: the specific EE equipment units and potential MW will be confirmed during the project preparatory stage for CEO endorsement / approval consideration) *Source: SERNA / CANATURH  2.3. Set up programme for monitoring and evaluation of actual energy savings, GHG emission reductions, and EE investment performance (e.g. funding types, credit history, defaults)  3.1. Documented and vetted case studies from the 9 projects piloted nationwide (development of energy indicators for electricity consumption for different end-uses at the hotel facility, use and comparison of baseline reference / benchmarks and data from energy audits / assessments under output 2.3 above)  3.2. Operationalized database and website on energy efficiency best practices, success stories and services for	GEFTF	225,000	695,000
		Subtotal	Honduran hotels		1,116,853	8,295,000
I	Project N	Management Cost (PMC) <sup>4</sup>		GEFTF	111,685	50,000
i -					111.00.7	20.0001

 $<sup>^4\</sup>mathrm{To}$  be calculated as a percent of subtotal.

### C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
Private Sector	НОРЕН	In-kind	1,900,000
Bilateral Aid Agency (ies)	JICA	Grant	1,400,000
National Government	SERNA	In-kind	200,000
National Government	SETUR	In-kind	200,000
Private Sector	CANATURH	In-kind	150,000
Other Multilateral Agency (ies)	BCIE/MIPYMES Verdes	Soft Loan	3,000,000
Private Sector	FOPESIC	Grant	400,000
Bilateral Aid Agency (ies)	GIZ/4E	Grant	1,000,000
GEF Agency	UNDP	Grant	50,000
GEF Agency	UNDP	In-kind	45,000
Total Cofinancing			8,345,000

# D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b)	Total (\$) c=a+b
(select)	(select)	(select)				0
Total Gra	Total Grant Resources			0	0	0

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

2 Indicate fees related to this project.

# E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

		Amount	Agency Fee
		Requested (\$)	for PPG $(\$)^6$
•	No PPG required.	0	0
•	(up to) \$50k for projects up to & including \$1 million	<u></u>	•••••
•	(up to) \$100k for projects up to & including \$3 million	<i>50,000</i>	<u>4,750</u>
•	(up to) \$150k for projects up to & including \$6 million	·····	•••••
•	(up to) \$200k for projects up to & including \$10 million	·····	•••••
•	(up to) \$300k for projects above \$10 million	·····	•••••

# PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA (S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY

Trust			Country Name/			(in \$)
Fund	GEF Agency	Focal Area	Global	PPG (a)	Agency Fee (b)	Totalc=a+b
(select)	(select)	(select)			, ,	0
Total Gra	Total Grant Resources			0	0	0

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

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<sup>&</sup>lt;sup>5</sup> On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

## PART II: PROJECT JUSTIFICATION<sup>7</sup>

### A. PROJECT OVERVIEW

A.1. Project Description. Briefly describe the project, including; 1)the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario and any associated baseline projects; 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project; 4) incremental cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing; 5) global environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up

#### i. THE GLOBAL ENVIRONMENTAL PROBLEMS, ROOT CAUSES AND BARRIERS THAT NEED TO BE ADDRESSED

- 1. Honduras is the second largest country in Central America (8 million inhabitants) with a total installed capacity of 1,610 MW and peak demand at 1,245 MW (2010 data). Total energy consumption was equivalent to 17.7 million barrels in 2010, of which 4.6 million equivalent barrels of diesel and fuel oil were used for power generation. Energy imports accounting for US\$1.6 billion per year pose a heavy burden on the national economy due to its dependence on hydrocarbons: Honduras was 100% reliant on hydropower in 1990, but today 52% of electricity in the mainland is generated with fossil fuels, while the islands off the Caribbean (e.g. Roatan, Utila, Guanaja) fully rely on isolated thermal power systems running on fuel oil and diesel, with very inefficient electricity end-use and high demand from tourism.
- 2. The Honduran hotel sector accounted for 120 GWh of electricity consumption in 2005 (of an approx. 4,000 GWh total demand). Hotel demand increased to 137 GWh in 2010 (of a total 4,800 GWh), when expected annual growth was at a rate of 6%. The hotel sector currently represents a significant portion of Honduran commercial consumers (approximately 25%, or 422 GWh), with the commercial sector collectively accounting for 32% (i.e. 1,690 of a total 5,234 GWh) of total electricity consumption in 2011 (IEA, 2011). Therefore, national dependence on imported oil for electricity generation directly impacts energy pricing for commercial consumers, including the hotel industry. The hotel industry seeks to increase its competitiveness by following a low-carbon path, but faces the following barriers:

Barrier Type	Barrier Descriptions
Regulatory Policy / Legal:	• The lack of experience of developing enforcement measures for performance of existing standards is major hurdle for accelerating market penetration of more efficient energy technologies
Weak	Weak performance of public institutions in implementing green incentives for the hotel industry
	Several norms and regulations that affect the hotel sector but none are wholly focused on the energy aspect
enforcement of	No standard guidelines from financiers or developers exist to analyze energy efficiency investments
existing energy efficiency	Lack of energy intensity indicators or the deployment of load management curves for new electro-mechanical
standards	hotel designs is also common among architects and engineers, hotel developers, financiers, and policy makers in the
stanaaras	energy and tourism sectors
Institutional /	• Lack of information, skills and knowledge on energy-efficient technologies that would help create a long-term
Technical: Lack	market shift in current electricity use, adapted for different hotel sizes
of information,	• Public institutions directly responsible for compliance with technical standards and labeling for electrical
skills and	equipment in high demand by the hotel industry (i.e. lighting systems, air conditioners, and refrigeration units), lack
knowledge on	sufficient public funding and properly trained energy management staff to carry out their mission efficiently
energy efficiency	Hotel developers and engineers lack capacity to prepare business plans for energy efficiency investments
technologies	• Bank officers lack experience and familiarity with energy efficiency (e.g. limited technical understanding of an energy audit report)
	Honduran best practices of energy efficiency projects linking financiers, hoteliers and policy makers do not exist
Market /	• Most hotels are constrained by lack of capital to undertake energy efficiency measures to improve their
Financial:	competitiveness
Limited access to	High borrowing costs are associated to lending for energy efficiency interventions implemented by SMEs
commercial	• There are no financial incentives for implementing environmental measures or making efficient energy
lending for small	investments to sustain a market trend over the long run
and medium-	• Market potential for energy efficiency is hugely underdeveloped. Generally it is estimated that 51% of the hotels
sized hotels	do not keep records of their energy consumption and energy cost is an unknown operating expense for 81% of the surveyed hotels

3. The comprehensive analysis of the above barriers, confirming their extent, nature, root causes and interrelationship, will be included in the final project document at the CEO endorsement stage. The project seeks to remove the barriers to increased commercial use of energy efficient electrical equipment by the Honduran hotel industry to increase its competitiveness:

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<sup>&</sup>lt;sup>7</sup> Part II should not be longer than 5 pages.

#### ii. THE BASELINE SCENARIO AND ANY ASSOCIATED BASELINE PROJECTS

4. SERNA and CANATURH are adopting a series of measures to help reduce electricity consumption and contribute to a more sustainable hotel sector. The following baseline initiatives are taking place (as tabled below):

Component	Business-As-Usual / Baseline Scenario
1. Sustainable Tourism	Bilateral aid worth US\$2.4m by JICA and GIZ, with a US\$0.1m in-kind contribution by
Low Emission Policies	CANATURH is linked to measures supporting the National Strategy and Action Plan for
	Cleaner Production. The commitment of Honduras to this strategy is two-fold: strengthening of
	capacities and transfer of energy efficient technologies; and, switching entrepreneurial behavior
	for end-users through communication and diffusion of best practices. However, institutional
	experience with energy efficiency regulation (in particular, the weak enforcement of energy
	standards and labels for electrical equipment) is very limited and requires strengthening.
	SUBTOTAL Component $1 = \$2,500,000$
2. Sustainable Tourism	National (e.g. FOPESIC) and international (e.g. BCIE) financial institutions, and the private
Low Emission Funding	sector (e.g. HOPEH, CANATURH)are lending and/or making more funding available for
	energy efficiency investments (approx. US\$5m). However, access to these funds is often
	limited to large international brand hotels. Small and medium sized hotels already operate at
	full debt capacity; therefore, their electricity use is still based on low-cost, energy inefficient
	electrical devices, such as low EER air conditioners and refrigeration systems.
	<i>SUBTOTAL Component 2 = \$5,100,000</i>
3. Sustainable Tourism	Honduras is piloting various energy efficiency initiatives, mainly driven by national tourism
Low Emission Knowledge	industry platforms CANATURH and HOPEH (US\$0.7m). However, there is virtually no
	information on successful cases or any best practices from these activities, engaging hoteliers,
	financiers and policymakers. The lack of demonstration of the benefits of energy efficiency
	undermines its development as a cost-effective measure to increase competitiveness in hotels.
	SUBTOTAL Component 3 = \$695,000
TOTAL = \$8,295,000	

# <u>iii. THE PROPOSED ALTERNATIVE SCENARIO, WITH A BRIEF DESCRIPTION OF EXPECTED OUTCOMES AND COMPONENTS OF THE PROJECT</u>

- 5. The project will promote the removal of barriers to the increased commercial use of energy efficiency technologies in the Honduran hotel sector, as proposed in the below project components. The GEF-financed, UNDP-supported intervention would help tackle the root causes of the risks associated with the planned investments:
- 6. Component 1: Sustainable Tourism Low Emission Policies—contributing to the enforcement of an energy efficiency (EE) enabling policy framework, and the strengthening of the technical capacity in the Honduran hotel industry. This component will promote a public-private institutional platform—including various cabinet portfolios (Environment, Planning, Tourism, Health, and Labor), the electricity utility (ENEE), the national university (UNAH) and CANATURH/HOPEH— that sketches out the path for designing and implementing energy efficiency projects for small, medium and large hotels:
- (1.1) Established national EE policy and operationalized a Honduran hotel EE scheme in compliance with minimum energy performance standards for appliances—CANATURH/HOPEH and other stakeholders (e.g. Instituto Hondureño de Turismo or IHT) will promote the: (a) implementation of the conformity assessment procedures for refrigerators and freezers used in the industrial and commercial sectors, compact fluorescent lamps (CFLs), and air conditioning units; and, (b) design and implementation of a voluntary agreement for an "Energy Efficiency Scheme" geared to those hotels interested in receiving a distinction as a "more energy efficient hotel"; and, (c) establishment of EE reference and benchmarks on energy consumption before and after the project, through energy consumption audits and evaluations of actual EE improvements in the hotel types (large, medium, small) piloted in the project, and replicated in the geographical areas selected (urban, island, industrial). (1.2) Completed capacity development for key stakeholders on electricity use, energy savings and GHG mitigation—strengthening the current knowledge of energy management by hoteliers, including several SMEs and hotels owned or run by women, through a learning-by-doing approach and implementation of best practices on electricity use, potential for energy savings and greenhouse gas emission reduction (e.g. hotel energy audit trainings, pilot project site evaluations).
- 7. **Component 2**: Sustainable Tourism Low Emission Funding –promoting the mobilization of commercially-driven investment in energy efficient equipment and technology for the Honduran hotel industry, as a result of increased access to financing by investors and/or promoters of energy efficiency equipment and best practices:
- (2.1) Established green incentive scheme for EE projects in the hotel industry—The "green incentive" to be developed will work as a collateral scheme that provides 50% of the initial investment (non-reimbursable) to hotels with less than 50 rooms (i.e. up to a maximum of 6 small hotels, 2 per each geographical area piloted), with the remainder to be covered by the hotelier. The incentive is expected to attract commercial lending for these hotels or access to existing grant and non-grant mechanisms

available in Honduras –e.g. Tourism Development Fund of Honduras (FODETURISH) managed by IHT, the IDB's Matching Grant for Tourism (Fondo de Fomento al Turismo or FFT) or the World Bank's Prosperity Fund–, including other options to cover the remaining 50% funding gap such as debt (e.g. soft, concessional), equity (e.g. venture capital) and others (e.g. leasing, micro insurance, credit and savings guarantee, energy performance contracting). The 50% subsidy level will decrease over time, as has been the case with FOPESIC (Fondo para Financiamiento de Proyectos de Eficiencia Energética), a national trust fund introduced in a previous UNDP-managed and GEF-funded project in Honduras. As a result, funding alternatives will be available to small and medium sized hotels, which mostly operate at full debt capacity and, thus, have limited access to new capital for the intended energy efficiency pilot projects. Part of the grant component of soft loans will also cover capacity development support beyond project closure (e.g. energy audits, cash management, balance sheet financing).

- (2.2) Portfolio of 9 pilot projects at feasibility level with funding plans to implement EE measures—targeting 3 hotel types (2 small and medium sized, and 1 large for comparison) and 3 geographical areas (urban, island and industrial regions). Surveyed hotels have an average energy consumption ranging 50-60 kWh/ month / room, with different consumption patterns per hotel type (Source: SERNA/CANATURH):
- (a) *large size* (with more than 50 rooms) reported 5,111 kWh/year; (b) *medium size* (with 16 to 49 rooms) reported 673 kWh/year; (c) *small size* (with less than 15 rooms) reported 259 kWh/year; including but not limited to the following:
- (a) <u>efficient lighting</u> (e.g. high-powered sodium/compact fluorescent light/light-emitting diode bulb retrofits; traditional linear T12 lamps and electromagnetic ballasts replacement with linear T8 lamps and electronic ballasts, amongst others); (b) <u>air conditioning</u> (e.g. higher energy efficiency ratio unitary packaged equipment for smaller tonnage A/C, large water-cooled central A/C plants for larger tonnage); (c) <u>EE alternatives</u> (e.g. food refrigeration with more efficient compressors/cooling, higher efficiency boilers/solar water heating, amongst other options).

The specific EE equipment units and potential MW will be confirmed during the project preparatory stage for CEO endorsement / approval consideration.

Projects will include financial plans for implementing energy efficiency measures, ready for negotiation with national financiers (e.g. FODETURISH, FOPESIC, MIMYPES/BCIE), and development banks (e.g. MIPYMES/BCIE, IDB). The scheme will be managed by a trust fund (i.e. FOPESIC), expected to be run by a commercial bank beyond project completion. The bank will be selected from a competitive bid managed by the project, as part of the design, testing and operationalization of the green scheme.

The scheme will trigger commercially-oriented financial mechanisms to fund EE interventions in hotels beyond closure of the GEF-funded stage, in the following order of priority considering the limited capacity of smaller hotels and to raise debt: (1) innovative financing mechanisms (e.g. leasing, micro insurance, credit and savings guarantee, energy performance contracting; (2) equity (e.g. venture capital); and, (3) soft or other form of concessional loan financing.

These projects would help demonstrate the viability of reducing electricity consumption in an environmentally sound and cost-effective manner; thus, it will create the necessary awareness amongst developers and hotel owners of the benefits of energy efficiency.

- (2.3) Set up programme for monitoring and evaluation of actual energy savings, GHG emission reductions, and EE investment performance The measure of actual benefits of the proposed energy management changes will help EE awareness-raising.
- 8. **Component 3**: <u>Sustainable Tourism Low Emission Knowledge</u>—increasing the practice and application of energy efficient technologies in the Honduran hotel industry, with the systematization of experiences and lessons learned at the national level, based on the outputs of Components 1 and 2 (including an EE broad information dissemination campaign):
- (3.1) Documented and vetted case studies from the 9 projects piloted nationwide—to ensure comparability, the case studies will require the development of energy indicators for electricity consumption for different end-uses at the hotel facility, for instance (e.g. kWh/occupied room), and the determination of load curves for each of 3 hotel sizes; thus, identifying the key sources of energy consumption in the hotel sector, such as air conditioning, lighting, cooking, amongst others.
- At the current PIF stage, the proposal estimates that lighting and air conditioning represent 66-75% of energy consumption in the commercial sector (i.e. hotels, offices, stores). At the PPG stage the proposal will further breakdown these estimates by source/type of use, which will form the baseline reference against which specific hotel energy consumption benchmarks will be developed, in order to monitor successful project implementation. The project will include activities, such as energy audits and other forms of assessment (under output 2.3 above), which will help report on actual EE improvements as well as support knowledge sharing.
- (3.2) Operationalized database and website on energy efficiency best practices, success stories and services for Honduran hotels—information activities will be designed to assist the building of a knowledge platform for broad dissemination through (e.g. printing and dissemination of EE handouts on lighting, refrigeration and air conditioners for hotels; database and possibly a website on best practices, engineering services, experiences from the pilot projects; business links to commercial lenders).

# <u>iv. INCREMENTAL COST REASONING AND EXPECTED CONTRIBUTIONS FROM THE BASELINE, THE GEFTF, LDCF/SCCF AND CO-FINANCING</u>

9. These activities are expected to result in the following incremental outcomes with GEF-grant support to the baseline:

Component	GEF-supported alternative		
1. Sustainable	The design and implementation of an "Energy Efficiency Scheme", involving a partnership between		
Tourism Low	overnment agencies and the private sector, will contribute to the adoption of voluntary low-carbon		
Emission Policies	standards and labels for electrical equipment applicable for the industrial and commercial sectors. In		
	addition to the observance of national standards and labels provisions for electrical equipment, the		
	scheme will help hotels implement energy efficiency measures to reduce their high electricity bills.		
\$2,841,000	SUBTOTAL Component $1 = BAU (\$2,500,000) + GEF (\$341,000)$		
2. Sustainable	The "green incentive" scheme catalyzes access to additional finance by smaller sized hotels, and helps		
Tourism Low	demonstrate the commercial viability and cost-effectiveness of EE investments for different types of		
Emission Funding	hotels nationwide. The successful implementation of the pilot project portfolio leads to the replication		
	of EE measures across the country, which is translated into: (a) increased electricity bill savings, (b)		
	reduced GHG emissions; (c) improved small/medium-size hotel competitiveness.		
\$5,650,853	$SUBTOTAL\ Component\ 2 = BAU\ (\$5,100,000) + GEF\ (\$550,853)$		
3. Sustainable	Energy efficiency investments, best practices and lessons learnt at the national level are highlighted as		
Tourism Low	the main cost-effective measure amongst cleaner production actions. Existing information at the		
Emission	regional level, best practices and lessons learned in the hotel industry are widely available for		
Knowledge	government agencies and for other productive sectors, mainly for commercial and industrial sectors.		
\$920,000	SUBTOTAL Component $3 = BAU (\$695,000) + GEF (\$225,000)$		
GRAND TOTAL:	\$9,411,853		

#### v. GLOBAL ENVIRONMENTALBENEFITS (GEFTF, NPIF) AND ADAPTATION BENEFITS (LDCF, SCCF)

10. The corresponding global environmental benefits associated to the above outcomes are estimated as follows (expected MtCO2e emission reductions will be confirmed during the project preparation stage of this proposal). The assessment for the implementation of a Clean Production Action Plan in the Tourist Sector estimated a potential saving of 351 MWh/year based on a sample consisting of 12 hotels, of different sizes with varying consumption patterns. Extrapolating this figure to the entire sector made up of 949 facilities (see table below) would yield a potential saving of approx. 27,750MWh/year, which represents 9.2% of savings based on the estimated current levels of consumption, due to the implementation of technological changes to replace inefficient electrical equipment for more efficient devices, such as lighting systems (mainly compact fluorescent lamps), air conditioners, and refrigeration units, complemented by the execution of end-use best practices. As a result, approx. 8,325 tCO2of direct emissions per year are expected to be avoided (24,975 tCO2 during the life of this project), based on a 0.3 tCO2/MWh emission factor (US DOE, 2007); and 74,925 tCO2of indirect emissions avoided over a 10-year period (bottom-up approach assuming a replication factor of 3). Moreover, the project would lead to further reductions if obsolete R22-refrigerators and chillers / HCFC-22 air conditioning equipment, mainly operating in large hotels are replaced with new refrigeration systems (The mitigation potential associated to HCFC-22 phase out will be determined once the specific EE equipment improvement (units/type) of the pilots is confirmed during the PPG stage).

EXTRAPOLATION OF ENERGY CONSUMPTION SURVEY TO ALL HOTELS IN HONDURAS								
Size (rooms)	# of Hotels			Average Consumption (kWh / year / hotel)	Average (kWh/month/room)			
Large (more than 50 rooms)	151	64,123	769,480	5,111	61			
Medium (16 to 49 rooms)	457	25,636	307,637	673	54			
Small (less than 15 rooms)	341	7,355	88,265	259	n.a.			
TOTAL / Avg	949	25,165	1,165,383	318	58			

Source: SERNA / CANATURH

#### vi. INNOVATIVENESS, SUSTAINABILITY AND POTENTIAL FOR SCALING UP

11. In terms of innovation the project targets different types of hotels. This approach will help demonstrate global environmental benefits across the country, irrespective of hotel size and location. The specific targeting of small and medium sized hotels by the "green incentive" scheme is an unprecedented effort in Honduras to pursue low emission tourism development at all scales.

- 12. In terms of sustainability, this broader sustainable development approach, not focusing only on the hotels with large capital access, will help financiers understand and scale-up financing for the implementation of energy efficiency investments. As many of these hotels are women-owned or run, additional access to capital (i.e. any of the debt, equity and innovative financing mechanisms underscored earlier) will help them be more competitive vis-à-vis their male peers. After project implementation is over, hotel stakeholders will both benefit from: (a) the guarantees provided by the establishment of green scheme, which will operate after the project life with minimum energy performance standards for appliances in place (the project will promote their compliance, the government will enforce such compliance undertaking the conformity assessment procedures after project closure); and, (b) the incentives associated to the green scheme and benefits realized both by pilot project beneficiaries, and hotels with funding plans beyond project closure.
- 13. In terms of replication, the potential for scale-up is primarily linked to the very benefits (energy savings performance contracts, operating cost savings, job creation) smaller hotels will realize; that is, not only linked to the access to debt finance, but also equity or other forms linked to the very electricity savings hotels are expected to reap (for instance, from energy performance contracting, or the acquisition of EE equipment through operating leasing). In this regard, GEF resources may be used as guarantee funds to reduce risk and hence reduce interest of loans for hotel owners when they borrow capital from local banks. Alternatively, the "Green Scheme" may be designed to pay part of interest for loans which local banks lend to the hotel owners, so that funding will not only benefit the selected 9 hotels but also all small and medium hotels in Honduras (the hotel industry in Honduras is made up by 949 hotels). The project replication is directly linked to the successful establishment and operationalization of this scheme. The piloting, availability and demonstration of the benefits of the various financing options presented above (see project component 2 and related expected outputs in Table B and para. 7) will help showcase its applications across different hotel types (size, location), and its scale up to the remaining hotels countrywide (see average energy consumption patterns and savings potential highlighted in para. 10). The National Tourism Strategy targets the protection of the country's wild beauty, jointly with the need to address ever increasing energy costs and high dependence on thermal power generation. In addition, the project will target growing interest to support the island regions of Honduras (e. Bay islands in the Caribbean) for sustainable and low-carbon tourism in tune with the National Strategy for Sustainable Tourism. Therefore, the project will not only help address climate mitigation front but also aim at integrating vulnerability measures (e.g. promoting economic resilience during the hurricane season through EE measures).
  - A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:
- 14. The project will be executed by SERNA, with CANATURH as the responsible implementing party, guidance from ENEE and SETUR, and support from UNDP, in liaison with the following key actors (Note: there are not green schemes functioning in Honduras apart from the experience built upon FOPESIC; however, there are banks with experience in developing a green portfolio, and have shown interest in developing and managing a green scheme for EE see below):

Type	Examples	Expected Roles
Government	SERNA	As the Secretariat for Natural Resources and Environment, it is the public sector lead of the AP+L ( <i>Acuerdo de Producción más Limpia</i> or Agreement for Clean Production in Hotels and Tourism Subsectors), tasked to ensure rules for participating hotels are streamlined and easily followed (e.g. administrative burden of environmental licenses and guarantees). It is also the national interface with the GEF, as it hosts the office of the country's focal points. During the PPG stage it will ensure that project documentation responds to national goals.
	ENEE	The <i>Empresa Nacional de Energía Eléctrica</i> has led several energy savings initiatives, in support of government efforts to promote efficient electricity use due to its high costs. The lessons learned and best practices from these will help inform the project preparatory stage.
	SETUR	The Secretariat of Tourism, via the <i>Instituto Hondureño de Turismo</i> is promoting sustainable tourism in Honduras, particularly in the Bay islands off the Caribbean. Thus, it is expected to champion the UNDP/GEF intervention from the PPG state onwards.
Donor partners	UNDP	GEF agency that will provide implementation oversight, project assurance and support, in addition to co-financing. It will ensure project documentation is completed on schedule.
	JICA	Japan's cooperation agency, catalyzer of finance with banks (e.g. IADB) to scale up energy efficiency investments in Central America, will help inform possibilities in Honduras.
	GIZ	The German cooperation agency's 4E program will provide the reference for the capacity strengthening processes required in the hotel sector, to be captured in the project document.
Private sector	CANATURH	As the national chamber of tourism, it is also signatory to the AP+L initiative, will serve as the link between the hotel industry and SERNA for the implementation of EE measures during project preparation and implementation, ensuring recognition of participating hotels.
	HOPEH	As the association of small hotels of Honduras, it is a key counterpart to ensure small and

	medium sized hotels are fully engaged in the project from the PPG stage to its closure.				
	HOPEH as other tourism associations to be involved in the project development (e.g.				
	OPTURH, ANWYTH) is women-led, so gender benefits will be considered.				
FOPESIC	As the fund for EE projects in the industrial/commercial sectors, it will help ensure SMEs				
	find incentives to undertake EE investments, as identified during project preparation.				
BCIE	The Central American Development Bank's MIPYMES Verdes will be a key source to				
	financially support the proposed green hotel scheme, as co-financier of the full project.				
Commercial	Banco Atlántida is the oldest and largest commercial bank in Honduras, with presence in				
Banks	its 18 departments through a network of more than 180 branches and service centers.				
	Banco Atlántida of Honduras has experience in facilitating loans to environmentally				
	sustainable projects, including a medium-term financing facility consisting of \$20 million.				
	The growth of a long-term sustainable lending portfolio in Banco Atlántida has contributed				
	to the marketability of a business line that can scale up sustainable investments while				
	demonstrating its environmental and commercial attractiveness.				
	As part of this financing, Banco Atlántida was exposed to the development of green line				
	eligibility criteria and the process for identifying, selecting, and monitoring green projects.				
	Banco Ficohsa has also developed an environmentally sustainable green portfolio of loans,				
	directed at small and medium enterprises (SMEs) and mid-size corporate borrowers. Banco				
	Ficohsa is the second largest commercial bank in Honduras, with a broad presence nationwide, including over 100 branches and service centers.				
	Banco Ficohsa is also an active member of IDB's Trade Finance Facilitation Program				
	(TFFP), acting as an issuing and confirming bank, with experience in the development of				
	green line eligibility criteria to determine the process for identifying, selecting, and				
	monitoring green projects.				

A.3. Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

15. The approach set forth for this project faces a number of inherent risks, not all of which can be fully mitigated during the project cycle. Particular attention will be paid to at least the following three (3) risks during project preparation:

Risks	Likely	Remedial actions		
1. High levels of crime and insecurity	High	The levels of high insecurity are mostly concentrated in the urban areas,		
jeopardizing intended tourism growth	_	but the majority of hotels are located in lower-risk zones. The social		
and development in Honduras		component of the full environmental screening, to be completed during		
		the project preparatory stage will focus on safety and security measures		
		from stakeholders required to address this risk.		
2. Limited capacity to withstand and	Medium	The environmental screening will also assess crisis prevention and		
respond to climate induced negative		recovery steps required to ensure an integrated low-emission (i.e.		
impacts in Central America (e.g.		efficient electrical equipment) and climate-resilient infrastructure		
hurricane season, landslides, floods)		response to energy use and conservation.		
3. Green incentives are not high	Low	Different types of financial providers (e.g. commercial lenders,		
enough or insufficient to guarantee		development banks, international aid cooperation) are being engaged by		
the triggering and long-term		the AP+L initiative to diversify financial access, and mitigate risks		
sustainability of the energy efficiency		around the catalytic impact of the collateral mechanism.		
market in the Honduran hotel sector		CANATURH/HOPEH and SERNA backing will also help this strategy.		
4. Low levels of motivation from	Low	The risk will be mitigated with the spread of project interventions across		
hotel owners to implement further		different types of hotels/locations. With the demonstration of similar or		
energy efficiency actions after the		consistent levels of energy savings across the nation, the industry will		
project is completed		feel the urge to remain competitive after the project ends.		

- A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives
- 16. SERNA will coordinate with the National Institute of Tourism (IHT) under its National Strategy for Sustainable Tourism, with CANATURH/HOPEH and with the National Cleaner Production Center (CNP+L) for complementarity and avoid overlapping, defining leadership and scope for each of the incremental activities actions. The UNDP/GEF Regional Program (PEER 2006-2011) has triggered energy efficiency markets for electrical equipment in Central America in commercial sectors, particularly in the development of technical standards and labels for electrical devices.

The learning curve and the impacts of PEER will contribute to the removal of barriers specifically in the hotel sector. UNDP will also coordinate with FOPESIC Fund, established for the financing of energy efficiency projects in the industrial sector of Honduras with support from GEF and CIDA (Canadian International Development Agency). Other bilateral cooperation include the USAID Clean Tech Program, and the JICA 2013-2017 program on sustainable energy.

#### B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

- B.1. National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:
- 17. The project is directly relevant to the development policy of Honduras, and national obligations as a party of the UNFCCC. It is in line with the Second National Communication, which underscores the reversal of hydroelectricity versus thermal power generation in the energy matrix as a growing development concern. The National Climate Change Strategy of Honduras aims at reducing and mitigating emissions of greenhouse gases (GHG) to voluntarily contribute to mitigating climate change and strengthening collateral processes of socio-economic and environmental sustainability at national level. As Honduras implements its National Strategy for Sustainable Tourism (2006-2021), the project will support the harmonization of tourism development with natural resource conservation in a manner that maximizes economic, social and environmental benefits. Finally, consistent with the above, the AP+L initiative will guide implementation in collaboration with SERNA and CANATURH.
- B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:
- 18. The proposal is consistent with the GEF-5 Climate Change Mitigation Focal Area strategy, under its Strategic Objective 2 to "Promote market transformation for energy efficiency in industrial and building sectors" (CCM-2). It will specifically target the hotel sector in Honduras.
- B.3. The GEF Agency's comparative advantage for implementing this project:
- 19. The project is consistent with UNDP's implementing mandate, capacity and presence, as captured in the 2007 GEF Council document on comparative advantages (GEF/C.31/5). Its emphasis of environmental finance for market transformation is in line with UNDP's Strategic Plan 2008-2011/13 followed in over 150 countries worldwide. The project GEF focal area falls under UNDP's Energy and Environment priority area on "Access to sustainable energy services". UNDP's capacity in this area has been recently codified in the UNDP-GEF Profile document, and in line with the Signature Programme no. 2 on energy efficiency. UNDP has successfully implemented EE projects in Honduras and other Central American countries, with the PEER initiative rated as Highly Satisfactory by its terminal evaluation.

# PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

# A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

NAME	POSITION	MINISTRY			DATE(MM/dd/yyyy)
Ms. Irina Helena PINEDA	Director of	SECRETARIAT	OF	NATURAL	01/10/2013
AGUILAR	External	RESOURCES AND ENVIRONMENT			
	Cooperation and				
	Resource				
	Mobilization Unit				

### **B.** GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.							
Agency Coordinator, Agency name	Coordinator, Signature y) Person Telephone						

Adriana Dinu UNDP – GEF Executive Coordinator and Director a.i.	A inn	03/21/2014	Raul Alfaro- Pelico, Regional Technical Advisor, EITT	+5073024500	raul.alfaro@undp.org
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