



I. COVER PAGE

Country: Lebanon

Expected Outcome(s)/Indicator (s):

Lebanon SRF Outcome 2: National capacities and policy formulations supported and strengthened to reach sustainable energy

Lebanon SRF Goal 3: Energy and environment for sustainable development

Lebanon Service Line 3.1: Frameworks and strategies for sustainable development

Implementing partners: UNDP Lebanon Country Office (DEX)

Other Partners: Ministry of Energy and Water

The project aims at supporting Lebanon's recovery, reconstruction and reform activities through the implementation of an end-use energy efficiency and renewable energy programme and through the removal of barriers for the conversion of all public sector buildings and facilities into energy efficient modalities. To achieve this, the project will work on two levels: on the one hand, the project will install energy efficiency and renewable energy equipment in selected public buildings and facilities across Lebanon based on a targeted energy assessment, and on the other hand, the project will help set an enabling environment that would encourage the transformation of all public buildings and facilities into energy efficient modalities. The project is financed by the Government of Spain through the Lebanon Recovery Fund, and is inline with Lebanon's ongoing efforts to improve national patterns of energy consumption and cost.

Programme Period: 2009-2011  
 Programme Component: Energy and Environment for Sustainable Development

Project Title: "CEDRO II" Country energy efficiency and renewable energy demonstration Project for the recovery of Lebanon

Award ID: 00047251  
 Project ID: 00060150  
 Project Duration: 2 years  
 Management Arrangement: DEX

Budget: 3,255,000 USD  
 Management Support Fee 245,000 USD

**Total budget: 3,500,000 USD**

Allocated resources:  
 • LRF 3,500,000 USD

In kind contribution:  
 • LCECP 78,000 USD

Agreed by Council for Development and Reconstruction



Agreed by United Nations Development Programme

## TABLE OF CONTENTS

I.	COVER PAGE	01
II.	SITUATION ANALYSIS	03
III.	STRATEGY	04
IV.	RESULTS AND RESOURCES FRAMEWORK	05
V.	ANNUAL WORK-PLAN BUDGET SHEET	07
VI.	MANAGEMENT ARRANGEMENTS	08
VII.	MONITORING AND EVALUATION	09
VIII.	LEGAL CONTEXT	10
IX.	PROJECT RISKS	11
X.	ANNEXES	11
	<u>Annex 1: Terms of Reference of the Project Management Unit</u>	<u>14</u>
	<u>Annex 2: In-Kind contribution of LCECP</u>	<u>15</u>
	<u>Annex 3: Terms of Reference of the Technical Backstopping Agency</u>	<u>16</u>

## ACRONYMS

AECI	Spanish Agency for International Cooperation
CEDRO II	Country energy efficiency and renewable energy demonstration project for the recovery of Lebanon
CDR	Council for Development and Reconstruction
CO	Country Office
ECM	Energy Conservation Measures
EDL	Electricity du Liban
EE/RE	Energy Efficiency and Renewable Energy
GHG	Greenhouse Gases
LCECP	Lebanese Center for Energy Conservation Project
LRF	Lebanon Recovery Fund
MEW	Ministry of Energy and Water
MoE	Ministry of Environment
MoET	Ministry of Economy and Trade
MPWT	Ministry of Public Works and Transport
MoM	Ministry of Municipalities
MoD	Ministry of Defence
MoF	Ministry of Finance
MYFF	Multi-Year Funding Framework
NGO	Non Governmental Organization
OEA	Order of Engineers and Architects
PMU	Project Management Unit
PV	Photovoltaics
STA	Solar Thermal Applications
SWH	Solar Water Heater
TPR	Tri-Partite Review
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme

## II. SITUATION ANALYSIS

1. Lebanon imports around 97% of its energy needs in the form of fossil fuel. In 2004, the national energy bill amounted to around 1.6 billion USD (around 20% of the annual public expenditure and around 7.8% of the national GDP), and in 2005 it reached 2.1 billion USD (around 26% of the annual public expenditure and around 10% of the national GDP). Despite major steps taken by the Government of Lebanon since 1990 towards improving the electricity sector, the sector is still facing major challenges including inability to meet increasing national energy demand and large financial subsidies for Electricite du Liban (EDL) (around 1.0 billion USD in 2006).
2. As a result of the July 2006 conflict, the situation of the energy sector in Lebanon was further aggravated, resulting in a reduction in electricity supply on a national level and an increase in electricity rationing. This only added to the existing electricity supply challenges faced by Lebanon and further deteriorated the living conditions in the country.
3. In light of this draining situation, the government of Lebanon has placed the reform of the power sector among its highest national priorities, as outlined in the recovery, reconstruction and reform paper submitted at the Paris 3 conference. However, given the enormity of the challenges faced by the power sector, the reform strategy has concentrated on addressing the energy supply side, without extending the scope to the demand side of energy management. Hence, the proposed CEDRO 2 project aims at complementing the national power sector reform strategy by targeting the missing component and that is demand-side management and end-use energy conservation.
4. To date, Lebanon does not have any special policies or incentive measures that promote energy efficiency and renewable energy initiatives. Furthermore, capacity among relevant governmental and private entities to plan energy efficiency and renewable energy options and interventions is considerably limited.
5. The process of recovery, reconstruction and reform presents a major challenge for the next several years for the Government of Lebanon and society at large. Given the enormity of the challenge, the national endeavors may not fully take into account energy efficiency and renewable energy measures for several reasons, including: time constraints, lack of capacity or know-how, lack of awareness about financial and other benefits of energy efficiency measures, and lack of financial resources. The threat posed by such large-scale reconstruction efforts is the further dependency on external fossil fuels and increase in CO<sub>2</sub> emissions.
6. This project is an initiative by the Government of Spain to assist the Government of Lebanon in its recovery, reconstruction and reform efforts with a clear focus on promoting sustainable energy services and concentrating on public buildings and facilities. The project is financed by the Government of Spain through the Lebanon Recovery Fund (LRF). The LRF resulted from the request of the Government of Lebanon to the United Nations Development Group (UNDG) to devise a pooled funding facility that would channel donor resources for the financing of priority recovery and reconstruction activities approved by the Government of Lebanon. The UNDP has been designated by the Participating UN Organizations, with the agreement of the Government of Lebanon, to serve as their Administrative Agent.
7. The proposed project is consistent with the European initiatives in general and with the Spanish Government in particular, which aim at promoting the adoption of energy efficiency and renewable energy technologies and practices in building construction and renovation within Mediterranean countries. Such initiatives will have direct impact on the world energy resources as well as on the world climate change / global warming issues that are becoming the world critical concerns. Countries, such as Spain, that are leaders in energy efficiency and renewable energy technologies would play an essential role in transferring their long gained experience to other countries in the Mediterranean Basin.
8. This project is in line with the Government of Lebanon's recovery, reform and reconstruction objectives. It also falls within the Ministry of Energy and Water's main priority to meet the national demand for electricity.

### III. STRATEGY

9. The CEDRO 2 project builds on the objectives of the Ministry of Finance to reduce government financial burdens and the objectives of the Ministry of Energy and Water to meet national electricity demand. In particular, the proposed CEDRO 2 project is in line with the proposed sustainable energy programme for Lebanon, which aims at assisting the GoL to develop, promote and adopt a Sustainable Energy Strategy (SES). Whereby, to reach this objective, the SES programme will work on two levels: the first involves the implementation of sustainable energy applications in public buildings to establish a demonstrative model that would encourage the private sector and the general public at large to take up similar initiatives; and the second involves creating an enabling environment in terms of financial mechanisms and legislative reforms that would encourage a market transformation towards sustainable energy use.
10. Furthermore, the CEDRO 2 project builds on the activities already initiated under the LRF CEDRO 1 (2007-2009) project which targets the installation of energy efficiency and renewable energy equipment in public buildings and facilities in three areas (South, Bekaa, and Akkar) highly affected by the July 2006 conflict. Additionally, the CEDRO 2 project builds on the activities already initiated by the Lebanese Center for Energy Conservation project (LCECP) which is a joint UNDP/MEW project aimed at removing barriers for the promotion of energy conservation and the activation of energy saving companies in Lebanon.
11. The proposed project includes the implementation of demonstration projects and the development of capacity strengthening. The project continues the on-going assistance provided by UNDP to the Government of Lebanon to enhance capacity for better environmental governance in line with the United Nations Development Assistance Framework (UNDAF) for Lebanon (2002 – 2007), and in line with the Millennium Development Goal 7 (MDG 7) of achieving environmental sustainability.
12. The Project's national partner will be the Ministry of Energy and Water (MEW). Although, MEW does not yet have an official national entity which overviews and develops the energy efficiency market in Lebanon, nevertheless, the Lebanese Center for Energy Conservation Project (LCECP), which is a joint project between MEW and UNDP, has an essential role to play in the development of the Lebanese energy efficiency and renewable energy market and has already successfully implemented similar energy efficiency and renewable energy projects in Lebanon. Furthermore, It is worth noting that MEW and UNDP have recently signed an agreement to transform LCECP into a Lebanese Center for Energy Conservation, providing support to the Government of Lebanon for the activation of energy efficiency and renewable energy applications in Lebanon.
13. Therefore, the proposed project shall be assistance to the Government of Lebanon in implementing energy efficiency and renewable energy projects to support the recovery, reconstruction and reform programme and to reduce national energy consumption and costs. This will ultimately result in a decrease in greenhouse gas (GHG) emissions by introducing and demonstrating new energy and cost efficient approaches and by supporting the overall shift towards energy efficiency and renewable energy applications.
14. In the framework of the CEDRO 2 project, an international consultancy specialized in Energy Efficiency and Renewable Energy applications and technologies (situation analysis and assessment, implementation of projects, monitoring and evaluation, etc.) will provide the technical support required for the effective design, implementation and validation of the project.

#### IV. RESULTS AND RESOURCES FRAMEWORK

<b>Intended Outcomes</b>	<p>1) Implementation of end-use energy efficiency and renewable energy projects to reduce national energy consumption and costs</p> <p>2) Setting an enabling environment for the conversion of all public sector buildings and facilities into energy efficient modalities</p>					
<b>Outcome Indicator</b>	<p>1.1) Number of beneficiaries from the installation of energy efficiency &amp; renewable energy equipment</p> <p>1.2) Reduction in energy consumption / cost and related reduction in CO2 emissions</p> <p>2.1) Availability of relevant public sector human resource capacity for the sustainability of EE/RE applications</p> <p>2.2) Availability of relevant institutional procedures and policies for the advancement of EE/RE applications</p>					
<b>SRF Service Line</b>	3.1 Frameworks and Strategies for Sustainable Development					
<b>Partnership Strategy</b>	Ministry of Energy and Water, and Lebanese Center for Energy Conservation Project					
<b>Project Title</b>	"CEDRO II" Country energy efficiency and renewable energy demonstration project for the recovery of Lebanon					
<b>Project Atlas ID</b>	00060150					
<b>Intended Outputs</b>	<b>Target years</b>	<b>Indicative Activities</b>	<b>Indicators</b>	<b>Res. parties</b>	<b>Resources</b>	<b>Inputs USD</b>
1. Project Management	2009 / 2011	<p>1.1 Technical Management</p> <p>1.2 Financial Management</p> <p>1.3 Operational Management</p>	<ul style="list-style-type: none"> <li>Timely completion of activities and effective networking &amp; outreach</li> </ul>	UNDP	<ul style="list-style-type: none"> <li>PMU</li> </ul>	182,796
2. Situation Analysis and Assessment	2009	<p>2.1 Carry out a comprehensive survey of public sector buildings and facilities</p> <p>2.2 Undertake targeted energy assessment</p> <p>2.3 Identify project beneficiary sites</p> <p>2.4 Undertake Energy Audits (by LCECP)</p> <p>2.5 Propose EE/RE applications</p>	<ul style="list-style-type: none"> <li>Survey report and data base on public sector buildings and facilities</li> <li>Report on energy assessment and identification of beneficiary sites</li> </ul>	UNDP	<ul style="list-style-type: none"> <li>PMU</li> <li>Technical</li> <li>Backstopping</li> <li>LCECP</li> </ul>	122,661
3. Implementation of energy efficiency and renewable energy projects	2010 / 2011	<p>3.1 Develop tender documents for identified works</p> <p>3.2 Undertake procurement of goods and services</p> <p>3.3 Undertake commissioning of works</p> <p>3.4 Undertake site supervision and monitoring</p>	<ul style="list-style-type: none"> <li>Complete set of Tender Documents</li> <li>Award of Contracts</li> <li>Satisfactory execution of works</li> </ul>	UNDP	<ul style="list-style-type: none"> <li>PMU</li> <li>Technical</li> <li>Backstopping</li> <li>LCECP</li> <li>Contractors</li> </ul>	2,893,548
4. Establishment of database on energy saving measures and results	2009 / 2011	<p>4.1 Undertake testing of performance and data collection</p> <p>4.2 Undertake the set-up of a GIS based database on public sector buildings and facilities</p> <p>4.3 Undertake the set-up of related energy consumption and savings</p>	<ul style="list-style-type: none"> <li>Data on reduced energy consumption and cost</li> <li>Integrated Data base on all public sector buildings and facilities</li> </ul>	UNDP	<ul style="list-style-type: none"> <li>PMU</li> <li>Technical</li> <li>Backstopping</li> <li>LCECP</li> <li>Consultants</li> </ul>	68,817

Intended Outputs	Target years	Indicative Activities	Indicators	Responsible parties	Resources	Inputs USD
5. Increased know how of public sector personnel on energy efficiency and renewable energy applications and policies	2009 / 2011	5.1 Develop capacity building & info dissemination plan 5.2 Develop material for technical workshops 5.3 Implement technical workshops 5.4 Develop material for awareness raising activities 5.5 Implement awareness raising activities	<ul style="list-style-type: none"> <li>Capacity Building and info dissemination plan</li> <li>Organization of workshops, lectures, one-on-one trainings with the different stakeholders</li> </ul>	UNDP	<ul style="list-style-type: none"> <li>PMU</li> <li>Technical Backstopping</li> <li>LCECP</li> <li>Public-sector beneficiaries</li> </ul>	88,172
6. Establishment of relevant institutional policies and procedures for the application of EE/RE measures in public sector buildings and facilities	2010 / 2011	6.1 Develop relevant TORs for new publicly funded buildings and facilities 6.2 Propose operation & maintenance modality 6.3 Develop relevant procurement documents	<ul style="list-style-type: none"> <li>Updated TORs (Eng/Ar)</li> <li>O&amp;M management plan</li> <li>Updated procurement documents (Eng/Ar)</li> </ul>	UNDP	<ul style="list-style-type: none"> <li>PMU</li> <li>Technical Backstopping</li> <li>LCECP</li> <li>Public-sector beneficiaries</li> </ul>	93,548
7. Project Validation and sustainability	2010 / 2011	7.1 Undertake validation of project results 7.2 Enable project replication 7.3 Undertake final project evaluation 7.4 Undertake project handover	<ul style="list-style-type: none"> <li>Report on validation of project results</li> <li>Independent Project evaluation report</li> <li>New project proposals</li> </ul>	UNDP	<ul style="list-style-type: none"> <li>PMU</li> <li>Technical Backstopping</li> <li>LCECP</li> </ul>	50,538

V. ANNUAL WORK-PLAN BUDGET SHEET

Project ID	Project Output	Key Activities	Res. Party	Fund	Donor	Budget Account / Description	2009 (USD)	2010 (USD)	2011 (USD)	Total (USD)
00060150	1- Implementation of energy efficiency and renewable energy projects to reduce national energy consumption and costs	A1. Project Management	UNDP	30000	LRF	71400 Contractual Services-Ind.	27,500	55,000	27,500	110,000
						72200 Equipment and Furniture	2,000	6,000	2,000	10,000
						72400 Communication and AV	2,000	5,000	2,000	9,000
						73100 Rental/Maintenance prem.	9,000	18,000	9,000	36,000
						74500 Miscellaneous Expenses	1,000	3,000	1,000	5,000
						75100 Facilities & Administration	3,124	6,548	3,124	12,796
		A2. Situation Analysis and Assessment	UNDP	30000	LRF	71400 Contractual Services-Ind.	7,500	15,000	7,500	30,000
						72100 Contractual Services-Co.	60,000	10,000	0	70,000
						72800 IT Equipment	5,000	5,000	0	10,000
						74500 Miscellaneous Expenses	1,000	2,000	1,000	4,000
						75100 Facilities & Administration	5,532	2,409	640	8,581
		A3. Implementation of demonstration projects	UNDP	30000	LRF	71400 Contractual Services-Ind.	0	50,000	30,000	80,000
						72100 Contractual Services-Co.	0	1,600,000	1,000,000	2,600,000
						73400 Rental/Maintenance other eq.	1,500	3,000	1,500	6,000
						74500 Miscellaneous Expenses	0	3,000	2,000	5,000
						75100 Facilities & Administration	113	124,645	77,790	202,548
		A4. Establishment of database	UNDP	30000	LRF	71300 Local Consultants	10,000	20,000	5,000	35,000
						72100 Contractual Services-Co.	10,000	10,000	0	20,000
						72800 IT Equipment	5,000	0	0	5,000
						74500 Miscellaneous Expenses	1,000	2,000	1,000	4,000
						75100 Facilities & Administration	1,957	2,409	452	4,817
		A5. Capacity Building and Information Dissemination	UNDP	30000	LRF	71300 Local Consultants	0	10,000	5,000	15,000
						71600 Travel	0	10,000	0	10,000
						72100 Contractual Services-Co.	0	15,000	0	15,000
						72800 IT Equipment	0	30,000	0	30,000
						74200 AV & Printing Prod.	0	5,000	5,000	10,000
						74500 Miscellaneous Expenses	0	1,000	1,000	2,000
						75100 Facilities & Administration	0	5,344	828	6,172
		A6. Establishment of policies and procedures	UNDP	30000	LRF	71200 International Consultants	0	20,000	10,000	30,000
						71300 Local Consultants	0	16,000	8,000	24,000
						72100 Contractual Services-Co.	0	20,000	10,000	30,000
						74500 Miscellaneous Expenses	0	2,000	1,000	3,000
						75100 Facilities & Administration	0	4,366	2,183	6,548
		A7. Validation and sustainability	UNDP	30000	LRF	71200 International Consultants	0	0	16,000	16,000
						71300 Local Consultants	0	0	10,000	10,000
						71600 Travel	0	0	5,000	5,000
						72100 Contractual Services-Co.	0	0	15,000	15,000
						74500 Miscellaneous Expenses	0	0	1,000	1,000
						75100 Facilities & Administration	0	0	3,538	3,538
		<b>TOTAL</b>					<b>153,226</b>	<b>2,081,721</b>	<b>1,265,056</b>	<b>3,500,000</b>



## Annual Work Plan

Lebanon - Beirut

Award Id: 00047251  
 Award Title: CEDRO  
 Year: 2008

Report Date: 14/8/2008

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget					
			Start	End		Fund	Donor	Budget Descr	Amount US\$		
00056604	CEDRO	Analysis and Assessment			UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	12,500.00	
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	78,115.00	
					UNDP (Direct Execution)	30000	LRF	72800	Information Technology Equipm	12,000.00	
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	500.00	
		CB & Information dissemina			UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	7,218.00	
					UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	3,000.00	
					UNDP (Direct Execution)	30000	LRF	71600	Travel	8,000.00	
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	10,500.00	
					UNDP (Direct Execution)	30000	LRF	74200	Audio Visual&Print Prod Costs	8,000.00	
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00	
		Pilot Demonstration Projects			UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	2,135.00	
					UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	46,000.00	
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	200,000.00	
					UNDP (Direct Execution)	30000	LRF	72200	Equipment and Furniture	25,200.00	
					UNDP (Direct Execution)	30000	LRF	73400	Rental & Maint of Other Equip	3,500.00	
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00	
					UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	19,299.00	
					UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	62,500.00	
		Project Management			UNDP (Direct Execution)	30000	LRF	71500	UN Volunteers	0.00	
					UNDP (Direct Execution)	30000	LRF	72200	Equipment and Furniture	3,500.00	
			UNDP (Direct Execution)	30000	LRF	72300	Materials & Goods	2,000.00			
			UNDP (Direct Execution)	30000	LRF	72400	Communic & Audio Visual Equip	3,000.00			
			UNDP (Direct Execution)	30000	LRF	73100	Rental & Maintenance-Premises	15,000.00			
			UNDP (Direct Execution)	30000	LRF	73200	Premises Alterations	3,000.00			
			UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	3,000.00			
			UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	6,440.00			
<b>TOTAL</b>										536,407.00	
<b>GRAND TOTAL</b>										636,407.00	





## Annual Work Plan

Lebanon - Beirut

Award Id: 00047251  
 Award Title: CEDRO  
 Year: 2009

Report Date: 14/8/2008

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
			Start	End		Fund	Donor	Budget Descr	Amount US\$	
00056804	CEDRO	Analysis and Assessment			UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	5,885.00
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	0.00
					UNDP (Direct Execution)	30000	LRF	72800	Information Technology Equipm	0.00
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	0.00
					UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	412.00
		CB & Information dissemina			UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	0.00
					UNDP (Direct Execution)	30000	LRF	71600	Travel	8,000.00
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	31,600.00
					UNDP (Direct Execution)	30000	LRF	74200	Audio Visual&Print Prod Costs	8,000.00
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,899.00
					UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	3,465.00
		Pilot Demonstration Projects			UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	22,300.00
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	1,980,799.00
					UNDP (Direct Execution)	30000	LRF	73400	Rental & Maint of Other Equip	2,000.00
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expense	1,000.00
					UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	133,426.00
		Project Management			UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	18,600.00
					UNDP (Direct Execution)	30000	LRF	71500	UN Volunteers	0.00
					UNDP (Direct Execution)	30000	LRF	72400	Communic & Audio Visual Equip	500.00
					UNDP (Direct Execution)	30000	LRF	73100	Rental & Maintenance-Premises	1,500.00
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	508.00
					UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	1,478.00
		Validation and Replicability			UNDP (Direct Execution)	30000	LRF	71200	International Consultants	14,000.00
					UNDP (Direct Execution)	30000	LRF	71600	Travel	4,000.00
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	21,500.00
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	3,064.00
					UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	2,980.00
<b>TOTAL</b>										
00060150	CEDROII	Database establishment			UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	10,000.00
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	10,000.00



## Annual Work Plan

Lebanon - Beirut

Award Id: 00047251  
 Award Title: CEDRO  
 Year: 2009

Report Date: 14/8/2008

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget			Amount US\$
			Start	End		Fund	Donor	Budget Descr	
		Database establishment			UNDP (Direct Execution)	30000	LRF	72800 Information Technology Equipm	5,000.00
		Implementation Dem. projec			UNDP (Direct Execution)	30000	LRF	74500 Miscellaneous Expenses	1,000.00
		Project Management			UNDP (Direct Execution)	30000	LRF	75100 Facilities & Administration	1,957.00
					UNDP (Direct Execution)	30000	LRF	73400 Rental & Maint of Other Equip	1,500.00
					UNDP (Direct Execution)	30000	LRF	75100 Facilities & Administration	113.00
					UNDP (Direct Execution)	30000	LRF	71400 Contractual Services - Individ	27,500.00
					UNDP (Direct Execution)	30000	LRF	72200 Equipment and Furniture	2,000.00
					UNDP (Direct Execution)	30000	LRF	72400 Communic & Audio Visual Equip	2,600.00
					UNDP (Direct Execution)	30000	LRF	73100 Rental & Maintenance-Premises	9,000.00
					UNDP (Direct Execution)	30000	LRF	74500 Miscellaneous Expenses	1,000.00
					UNDP (Direct Execution)	30000	LRF	75100 Facilities & Administration	3,124.00
		Situation analysis&assessm			UNDP (Direct Execution)	30000	LRF	71400 Contractual Services - Individ	7,500.00
					UNDP (Direct Execution)	30000	LRF	72100 Contractual Services-Companie	60,000.00
					UNDP (Direct Execution)	30000	LRF	72800 Information Technology Equipm	5,000.00
					UNDP (Direct Execution)	30000	LRF	74500 Miscellaneous Expenses	1,000.00
					UNDP (Direct Execution)	30000	LRF	75100 Facilities & Administration	5,532.00
<b>TOTAL</b>									<b>153,226.00</b>
<b>GRAND TOTAL</b>									<b>2,320,142.00</b>



## Annual Work Plan

Lebanon - Beirut

Award Id: 00047251  
 Award Title: CEDRO  
 Year: 2010

Report Date: 14/8/2008

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
			Start	End		Fund	Donor	Budget Descr	Amount US\$	
00060150	CEDROII	Capacity Bldg & Disseminat			UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	10,000.00
					UNDP (Direct Execution)	30000	LRF	71600	Travel	10,000.00
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	15,000.00
					UNDP (Direct Execution)	30000	LRF	72800	Information Technology Equipm	30,000.00
				UNDP (Direct Execution)	30000	LRF	74200	Audio Visual&Print Prod Costs	5,000.00	
				UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00	
				UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	5,344.00	
				UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	20,000.00	
				UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	10,000.00	
				UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	2,000.00	
				UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	2,409.00	
				UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	50,000.00	
				UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	1,600,000.00	
				UNDP (Direct Execution)	30000	LRF	73400	Rental & Maint of Other Equip	3,000.00	
				UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	3,000.00	
				UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	124,645.00	
				UNDP (Direct Execution)	30000	LRF	71200	International Consultants	20,000.00	
				UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	16,000.00	
				UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	20,000.00	
				UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	2,000.00	
		UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	4,366.00			
		UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	55,000.00			
		UNDP (Direct Execution)	30000	LRF	72200	Equipment and Furniture	6,000.00			
		UNDP (Direct Execution)	30000	LRF	72400	Communic & Audio Visual Equip	5,000.00			
		UNDP (Direct Execution)	30000	LRF	73100	Rental & Maintenance-Premises	18,000.00			
		UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	3,000.00			
		UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	6,948.00			
		Situation analysis& assessment			UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	15,000.00
					UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Company	10,000.00
					UNDP (Direct Execution)	30000	LRF	72800	Information Technology Equipm	5,000.00



## Annual Work Plan

Lebanon - Beirut

Award Id: 00047251  
 Award Title: CEDRO  
 Year: 2010

Report Date: 14/8/2008

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
			Start	End		Fund	Donor	Budget Descr	Amount US\$	
		Situation analysis&assessm			UNDP (Direct Execution)	30000	LRP	74500	Miscellaneous Expenses	2,080.00
					UNDP (Direct Execution)	30000	LRP	75100	Facilities & Administration	2,409.00
<b>TOTAL</b>										
<b>GRAND TOTAL</b>										
<b>2,081,721.00</b>										
<b>2,081,721.00</b>										



## Annual Work Plan

Lebanon - Beirut

Award Id: 00047251  
 Award Title: CEDRO  
 Year: 2011

Report Date: 14/8/2008

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget				
			Start	End		Fund	Donor	Budget Descr	Amount US\$	
00060150	CEDROI	Capacity Bldg & Disseminat			UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	5,000.00
					UNDP (Direct Execution)	30000	LRF	74200	Audio Visual&Print Prod Costs	5,000.00
					UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00
					UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	828.00
		Database establishment		UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	5,000.00	
				UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00	
				UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	452.00	
				UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	30,000.00	
		Implementation Dem. projec		UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Companie	1,000,000.00	
				UNDP (Direct Execution)	30000	LRF	73400	Rental & Maint of Other Equip	1,500.00	
				UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	2,000.00	
				UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	77,790.00	
		Policy Establishment		UNDP (Direct Execution)	30000	LRF	71200	International Consultants	10,000.00	
				UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	8,000.00	
				UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Companie	10,000.00	
				UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00	
		Project Management		UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	2,183.00	
				UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	27,500.00	
				UNDP (Direct Execution)	30000	LRF	72200	Equipment and Furniture	2,000.00	
				UNDP (Direct Execution)	30000	LRF	72400	Communic & Audio Visual Equip	2,000.00	
Situation analysis&assesam		UNDP (Direct Execution)	30000	LRF	73100	Rental & Maintenance-Premises	9,000.00			
		UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00			
		UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	3,123.00			
		UNDP (Direct Execution)	30000	LRF	71400	Contractual Services - Individ	7,500.00			
Validation & Sustainability		UNDP (Direct Execution)	30000	LRF	74500	Miscellaneous Expenses	1,000.00			
		UNDP (Direct Execution)	30000	LRF	75100	Facilities & Administration	640.00			
		UNDP (Direct Execution)	30000	LRF	71200	International Consultants	16,000.00			
		UNDP (Direct Execution)	30000	LRF	71300	Local Consultants	10,000.00			
		UNDP (Direct Execution)	30000	LRF	71600	Travel	5,000.00			
		UNDP (Direct Execution)	30000	LRF	72100	Contractual Services-Companie	15,000.00			



**Annual Work Plan**

Lebanon - Beirut

Award Id: 00047251  
 Award Title: CEDRO  
 Year: 2011

Report Date: 14/8/2008

Project ID	Expected Outputs	Key Activities	Timeframe		Responsible Party	Planned Budget			Amount US\$	
			Start	End		Fund	Donor	Budget Descr		
		Validation & Sustainability			UNDP (Direct Execution)	30000	LRP	74500	Miscellaneous Expenses	1,000.00
					UNDP (Direct Execution)	30000	LRP	75100	Facilities & Administration	3,537.00
<b>TOTAL</b>										<b>1,265,053.00</b>
<b>GRAND TOTAL</b>										<b>1,265,053.00</b>

## VI. MANAGEMENT ARRANGEMENTS

15. The Project will be executed under the UNDP Direct Execution modality (DEX), whereby UNDP will act as both the implementing and the executing agency.
16. For the day-to-day management of the project, the UNDP CO will set-up a Project Management Unit (PMU). The PMU will work under the direct supervision of the Environment and Energy Programme of the UNDP CO, and in close collaboration with LCECP/Ministry of Energy and Water. Furthermore, the PMU will also work in close collaboration with the donor, the Lebanese Government, the local direct and indirect beneficiaries, as well as with the international team of experts from the technical backstopping agency recruited for this project. The PMU will be responsible for the overall execution of the project and will be led by a full time national Project Manager and supported by the required local professional and administrative staff. The Terms of Reference of the PMU personnel are listed in Annex 1.

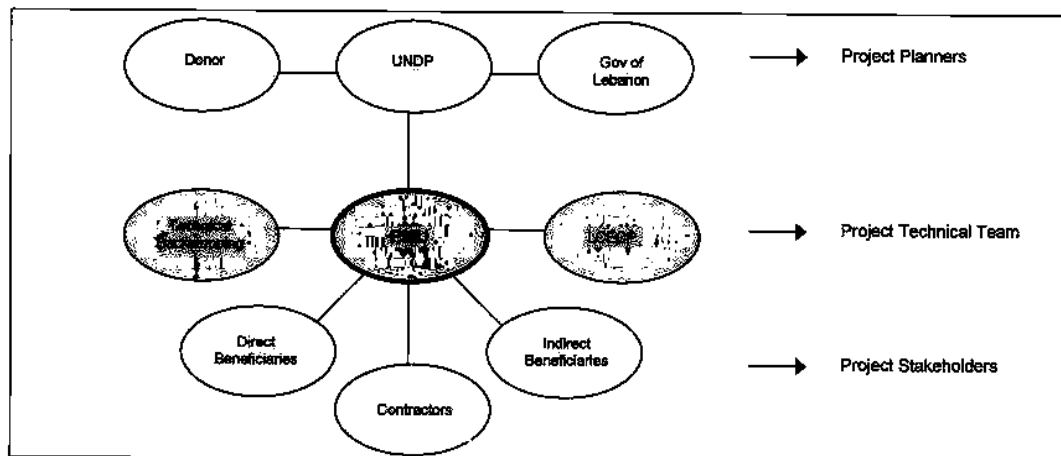


Figure 1: PMU Networking Model

17. LCECP will be in charge of undertaking a number of energy audits for public buildings and municipalities, and will also further accompany the project's activities. This will constitute an in-kind contribution from LCECP. Additionally, the PMU will build on the activities already initiated or are to be initiated by LCECP, including a parallel Swedish SWH project financed by the SIDA, and a Greek SWH project financed by the Hellenic Aid. Furthermore, the PMU will coordinate with MEW through LCECP. The in-kind contribution of LCECP is listed in Annex 2.
18. The International Technical Backstopping Agency will be in charge of the analysis and assessment and will provide the technical support needed for the effective design, implementation and validation of the project. This will ensure that best practices and lessons learnt about similar activities in other countries are adequately taken into account in project implementation. The Terms of Reference of the Technical backstopping are listed in Annex 3.
19. The UNDP CO will monitor the progress towards intended results, and will ensure high-quality managerial and financial implementation of the project, and will be responsible for monitoring and ensuring proper use of administrated funds to the assigned activities, timely reporting of implementation progress as well as undertaking of mandatory and non-mandatory evaluations. Furthermore, the procurement of goods and services and the recruitment of personnel shall be provided in accordance with UNDP guidelines, procedures and regulations.

20. In order to ensure optimum involvement of the project partners and beneficiaries, a Project Coordination Committee (PCC) will be set-up. The PCC will build upon the existing LCECP Steering Committee, and will include representatives from all concerned parties including:
- *Direct Beneficiaries:* National public sector entities and individuals benefiting from the proposed projects (MEW, MPWT, MoD, MoM, MoE, MoF, MoET, CDR, municipalities, etc.)
  - *Indirect Beneficiaries:* local NGOs and private sector entities.
  - *Government of Spain, AECI and other Spanish Energy Agencies:* Donor country and international technical back-stopper to the proposed project
  - *United Nations Development Programme:* Implementing and executing agency (technical and financial management, as well as monitoring and supervision) of the proposed project
  - *Lebanese Center for Energy Conservation Project (LCECP):* Local Technical Agency collaborating with the proposed project
  - *International Energy Experts:* International Experts from the technical back-stopping agency providing technical services during the project phases
  - *Local Energy Experts:* National Experts providing technical services during the project phases

## VII. MONITORING AND EVALUATION

21. UNDP CO will undertake periodic monitoring of the implementation progress through regular meetings with the project team. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion and to ensure smooth implementation of project activities. Furthermore, UNDP CO will be responsible for financial monitoring and reporting on all disbursements of the programme, and will ensure continued reporting to the Government of Lebanon and the Donor Country. Financial disbursements and auditing, as well as the procurement of goods and services, and the recruitment of personnel shall be based on UNDP procedures and guidelines.
22. Monitoring will be a continuous and systematic process review of the various activities and will be intended to (i) measure input, output, and performance indicators; (ii) provide regular and up-to-date information on the progress towards meeting the overall Project Objectives; (iii) and alert the implementing partners with problems in implementation, and provide basis on which performance may be improved, and (iv) determine whether the relevant stakeholders are responding as expected.
23. The regular reporting from the Project is governed by UNDP reporting requirements, and will include the following reports:
- i. Six-monthly progress reports which will reflect progress on works, goods procured, technical assistance, performance indicators and financial reports;
  - ii. Annual Project Progress Report (APR) as per UNDP format to be submitted annually as of project initiation. [The APR will be discussed during the annual Tripartite Project Review (TPR) meeting in the presence of project donors, national counterparts and all concerned stakeholders.]
  - iii. Final Project Evaluation Report carried out by an independent external consultant
24. Furthermore, a number of timely milestone review events will be undertaken in the presence of project donors, national counterparts and all concerned stakeholders and beneficiaries. These events will include: i) a Project Inception workshop, ii) an Annual Tripartite Project Review (TPR) meeting, and iii) a Terminal Project workshop.



The Annual Work Plan (AWP) Monitoring Tool

Year \_\_\_\_\_

CP Component \_\_\_\_\_  
 Executing Entity \_\_\_\_\_

EXPECTED OUTPUTS AND INDICATORS	PLANNED ACTIVITIES	EXPENDITURES	RESULTS OF ACTIVITIES	PROGRESS TOWARDS ACHIEVING OUTPUTS
<b>OUTPUT 1:</b> Implementation of energy efficiency and renewable energy applications in public sector buildings and facilities	Situation Analysis and Assessment			
<b>INDICATOR 1.1 WITH TARGET FOR THE YR: 2010</b> Number of beneficiaries from the installation of energy efficiency & renewable energy equipment	Implementation of Demonstration projects			
<b>INDICATOR 1.2 WITH TARGET FOR THE YR: 2011</b> Reduction in energy consumption / cost and related reduction in CO2 emissions	Project Validation and sustainability			
<b>OUTPUT 2:</b> Establishment of an enabling environment for the conversion of all public sector buildings and facilities into energy efficient modalities	Establishment of thorough data base			
<b>INDICATOR 2.1 WITH TARGET FOR THE YR: 2011</b> Availability of relevant public sector human resource capacity for the sustainability of EE/RE applications	Capacity building and information dissemination			
<b>INDICATOR 2.1 WITH TARGET FOR THE YR: 2011</b> Availability of relevant institutional procedures and policies for the advancement of EE/RE applications	Development of relevant policies and procedures			

## VIII. LEGAL CONTEXT

25. This Project Document shall be the instrument referred to as such in Article I of the Standard Basic Assistance Agreement between the Government of Lebanon and the United Nations Development Programme, signed by the parties on 10 February 1986.
26. The UNDP Resident Representative in Lebanon is authorized to effect in writing the following types of revisions to the Project Document, after consultation with the project partners:
- i. Revision of, or addition to, any of the annexes to the Project Document;
  - ii. Revisions which do not involve significant changes to the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation;
  - iii. Mandatory annual revisions which re-phase the delivery of agreed project outputs or increased expert or other costs due to inflation, or take into account agency expenditure flexibility; and
  - iv. Inclusion of additional annexes and attachments
27. Upon completion of the project, the UNDP CO shall transfer ownership of all furniture and equipment purchased for the day-to-day operation of the PMU to the Government of Lebanon.

## IX. PROJECT RISKS

Key Activities	Risks	Recommendations
<b>A1. Project Management</b>	<ul style="list-style-type: none"> <li>• Tight project Timeframe</li> <li>• Unstable Political situation</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure adequate human resources to optimize project management</li> </ul>
<b>A2. Analysis and Assessment</b>	<ul style="list-style-type: none"> <li>• Non availability of required data</li> <li>• Low level of collaboration from local communities</li> <li>• Low acceptance of new technology by local communities</li> <li>• Delay in start date of Technical Backstopping Agency</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure adequate outreach, networking and coordination</li> </ul>
<b>A3. Pilot Demonstration Projects</b>	<ul style="list-style-type: none"> <li>• Delays/problems in equipment delivery</li> <li>• Delays/problems in sub-contracted works on site</li> <li>• Security risks in target project locations</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure adequate quality of goods and services</li> </ul>
<b>A4. Capacity Building &amp; Info Dissemination</b>	<ul style="list-style-type: none"> <li>• Insufficient participation in awareness raising and capacity building to sustain the project</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure adequate needs assessment to address exact beneficiary requirements</li> </ul>
<b>A5. Validation and Replicability</b>	<ul style="list-style-type: none"> <li>• Improper maintenance of equipment (ex. absence of spare parts)</li> <li>• Decrease in conventional energy prices (through subsidies or other)</li> <li>• Discontinued government commitment to energy saving policies &amp; programs</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure adequate O&amp;M management arrangements to enable sustainability</li> <li>• Propose that surveys of beneficiary energy bills be effected after project completion</li> </ul>

## X. ANNEXES

## ANNEX 1

### Terms of Reference of the PMU Personnel

#### PROJECT MANAGER

##### Key Functions/Responsibilities:

Under the direct supervision of UNDP and in close coordination with LCECP and the Ministry of Energy and Water (MEW), the Project Manager will be responsible for the overall execution of the project and will work in close coordination with UNDP, the donor, the Lebanese Government, the local beneficiaries, and the international team of experts from the technical backstopping agency. The specific functions of the Project Manager are as follows:

1. Project elaboration and management:
  - Prepare detailed project document in coordination with UNDP/LCECP, the Donor and the international backstopping agency, and in consultation with MEW
  - Develop a detailed project work plan, budget breakdown and schedule
  - Develop TORs for local short-term consultants on project needs with the guidance of UNDP and assist in the recruitment process based on UNDP procedures
  - Manage local project team and resources
  - Coordinate all project activities with the technical backstopping agency and UNDP
  - Draft technical and financial progress reports to UNDP and the Donor
2. Project implementation and delivery:
  - Monitor project progress against set deliverables and timeframes
  - Supervise and follow-up on all project delivery and execution at the different sites
  - Ensure smooth and successful implementation of the various project activities
  - Compile all technical needs assessment and draft the international bidding documents with the assistance of the technical backstopping agency and UNDP
  - Assist in the entire procurement process for the equipment
  - Proactively inform UNDP and LCECP of project risks along with mitigation measures
  - Ensure communication about the project is regular and accurate
  - Integrate the project results and findings, with the assistance of the technical backstopping agency, to set the basis for a national sustainable energy strategy
  - Prepare any follow-up project proposals as per the needs identified by UNDP/donor.
3. Technical support:
  - Review and provide technical advice on all project outputs
  - Supervise the technical delivery of the sub-contractors and local consultants
  - Provide policy and technical advice to MEW and UNDP on all renewable energy/energy efficiency issues
  - Provide regular training for the project team and local stakeholders to ensure proper project performance
  - Liaise with the local communities to build capacity, ensure cooperation and involvement

##### Competencies/Qualifications:

The Candidate must have extensive knowledge of the national and local context relating to energy efficiency/renewable energy issues. Some knowledge of the post-conflict situation is also preferable. The Candidate must be willing to travel extensively to the project sites across Lebanon and must have experience working with local communities. The Candidate must have strong planning and managerial skills to ensure quick project implementation and timely delivery of required outputs.

- Education: Graduate degree (MSc/MEng) in engineering or environmental sciences or closely related field.
- Experience: Minimum of 8 years of experience in the field. Experience in development projects and prior experience with UNDP and/or energy efficiency and renewable energy is necessary. Computer experience.
- Language Requirements: Effective verbal and written communication skills in both Arabic and English. French is a plus.

## **RESEARCH ASSISTANT**

### **Key Functions/Responsibilities:**

Under the direct supervision of the Project Manager and in close coordination with UNDP, the Research Assistant will be responsible for the data collection and research activities of the project as well as the day-to-day operational support to the project. The specific functions of the Research Assistant include:

1. Data Collection and Research activities
  - Collect and log all data related to inventories of public buildings and facilities;
  - Collect and log all data related to electricity bills and other energy bills of target buildings and facilities;
  - Collect and log all data related to facilities drawings, equipments, etc.
  - Coordinate with LCECP and project beneficiaries to ensure availability of relevant information and data;
  - Collect and log all data related to reduced energy consumption and costs in target facilities;
  - Effect various web based research related to the project's energy efficiency and renewable energy applications (solar water heaters, photovoltaic street lighting, efficient lamps, thermal insulation, etc.);
  - Support other aspects of project data collection activities, as applicable;
2. Operational/Administrative and Outreach activities
  - Assist in the preparation of relevant procurement procedures for goods and consultancy services, [Request for Proposals, Request for Quotation, Contracts, Request for Payments, etc.] ensuring for all supporting documents in accordance with DEX and UNDP requirements;
  - Reconcile Petty Cash, ensuring all disbursements are in accordance with UNDP rules and procedures;
  - Assist in the organization of project events (technical workshops, training sessions, stakeholder meetings, project review meetings, etc.)
  - Maintain records, files, data bases and inventories;
  - Follow up on travel and shipment arrangements, transport, etc;
  - Prepare mailing lists and minutes of meeting;
  - Assist in the preparation of project progress reports and other regular project reporting;
  - Assist in the development of project newsletters, press releases, brochures, etc.
  - Support other aspects of project implementation and office management, as applicable;

### **Competencies/Qualifications:**

The Candidate must have an interest in Energy Efficiency & Renewable Energy Issues. She/He must possess excellent research, organizational, networking and communication skills, in addition to the ability to handle multiple tasks simultaneously and accurately. The Candidate must have a teamwork spirit and be willing to learn and embrace additional responsibilities within the team.

- Education: Bachelor degree in Mechanical, Electrical or Electro-Mechanical Engineering.
- Experience: research experience, and relevant computer experience.
- Languages: Excellent command of English and Arabic. French is a plus.

## **SITE-SUPERVISION ENGINEER (X 2)**

### **Key Functions/Responsibilities:**

Under the direct supervision of the Project Manager and in close coordination with LCECP, the Site Engineer will supervise and manage the installation of the proposed Energy Efficiency and Renewable Energy (EE/RE) applications (solar water heaters, photovoltaics, thermal insulation, etc.) which will be installed in selected public buildings and facilities across Lebanon. The specific functions of the site supervision engineer include:

#### **Technical Supervision:**

- Coordinate with all relevant parties for the proper installation of the EE/RE applications;
- Prepare in collaboration with the Installation Contractor, the time schedule for the execution of the various activities;
- Prepare, in collaboration with the warehouse keepers, the proper forms regarding the proper delivery of equipment from the warehouse to the installation sites;
- Pay visits to all the sites where the equipment are located in order to verify that the specifications and quantities of the items installed are as per the contract. Visits should be evidenced by a signature from the Beneficiaries;
- Convey progress, comments, problems etc. to the Project Manager regarding the works;
- Provide a complete listing of the installed equipment in each site along with the serial numbers;
- Prepare an acceptance report on the EE/RE installations for payment to installation contractor.
- Assist in the review of EE/RE technical specifications

#### **Reporting:**

- Develop regular progress reports on the EE/RE installations, as requested.
- Develop weekly reports detailing the site visits performed and the outcome of these visits.
- Provide detailed reports on the inventory of the EE/RE measures at warehouses
- Effect weekly meetings with PMU in Beirut or at other UNDP back-up offices to review the Project progress and solve any problem facing the execution of works.

#### **Working Hours:**

The Consultant shall perform all the activities, in principle, during the official working hours (Monday to Saturday) or as might be agreed upon between the parties.

#### **Competencies/Qualifications:**

The Candidate must have a high interest in Energy Efficiency & Renewable Energy issues. She/He must possess excellent research, attention to detail and communication skills, in addition to the ability to handle multiple tasks simultaneously and accurately. The Candidate must be willing to travel extensively to the project sites across Lebanon, and must have a teamwork spirit and be willing to learn and embrace additional responsibilities within the team.

- Education: BE in Mechanical / Electrical or Electro-Mechanical Engineering or closely related field. Computer skills
- Experience: 5 years of relevant work experience, particularly EE/RE applications
- Languages: Excellent command of English and Arabic. French is a plus.

## ANNEX 2

### In-Kind Contribution of LCECP

Activity	Cost
<b>A) Undertaking Energy Audits at selected project sites:</b>	
<ul style="list-style-type: none"><li>- Beirut: 3 audits</li><li>- Mount Lebanon: 3 audits</li></ul>	$6 \text{ audits} \times 7,000 \text{ USD / audit} = 42,000 \text{ USD}$
<b>B) Coordination of Project Personnel:</b>	
<ul style="list-style-type: none"><li>- Project Manager</li><li>- Engineering Coordinator</li><li>- Marketing Coordinators</li><li>- Driver</li><li>- &amp; Other</li></ul>	$18 \text{ months} \times 2,000 \text{ USD / month} = 36,000 \text{ USD}$
<b>Estimated Overall In-Kind Contribution of LCECP = 78,000 USD</b>	

## ANNEX 3

### Terms of Reference of the Technical Backstopping Agency

[The terms of reference will be part of the typical UNDP Request for Proposal (RFP) with a technical proposal and a financial proposal submitted in separate sealed envelopes]

#### 1 – BACKGROUND

The Objective of the proposed "Country energy efficiency and renewable energy demonstration project for the recovery of Lebanon" (CEDRO) is to support early recovery activities through the implementation of energy efficiency and renewable energy initiatives to be identified and designed for public buildings and facilities. To achieve this, the project will carry out a targeted energy assessment, and will monitor the direct impacts and benefits of the installed equipment on the beneficiaries' energy bills to set the basis for future national energy sustainable development.

The CEDRO project is financed by the Government of Spain through the Lebanon Recovery Fund, and is inline with Lebanon's ongoing commitment to promoting energy conservation and sustainable energy development. The Project will be executed under the UNDP Direct Execution modality (DEX), whereby UNDP will act as both the implementing and the executing agency.

For the day-to-day management of the project, UNDP will set-up a Project Management Unit (PMU). The PMU will work under the direct supervision of UNDP, and in close collaboration with LCECP, the donor, the Lebanese Government, the local direct and indirect beneficiaries, as well as with the international team of experts from the technical backstopping agency. The PMU will be responsible for the overall execution of the project and will be led by a full time national Project Manager and supported by the required local professional and administrative staff.

The Lebanese Center for Energy Conservation Project (LCECP) will be in charge of undertaking a number of energy audits for public buildings and municipalities, and will further accompany the project's activities. Additionally, the PMU will build on the activities already initiated or are to be initiated by LCECP, including a parallel Solar Water Heater project.

The technical backstopping will be an agency specialized in Energy Efficiency and Renewable Energy applications and technologies (including situation analysis and assessment, implementation of projects, monitoring and evaluation, etc.) and will provide the technical support needed for the effective design, implementation and validation of the project.

The PMU will make available, to the experts from the technical backstopping agency, the relevant operational requirements for the execution of the consultancy, including: assistance in data collection, preparation of all needed networking and coordination with local beneficiaries, organization of all capacity building events, provision of office space during missions, etc.

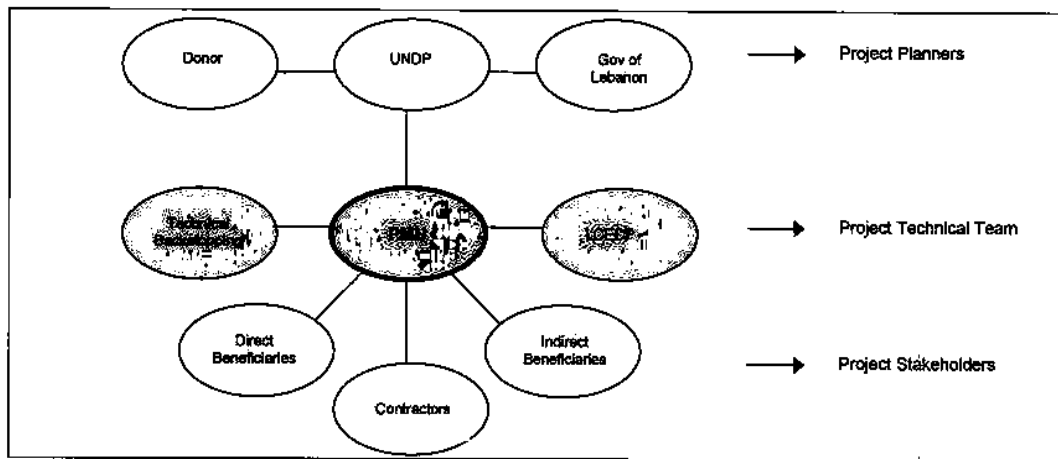


Figure 1: PMU Networking Model

## 2 – OBJECTIVE OF THE CONSULTANCY

The aim of the Technical Backstopping service is to provide the necessary technical support for the effective design, implementation and validation of the project. The design phase will include: a quick assessment of the energy situation of public buildings and facilities, the identification of project beneficiaries, the preparation of tender documents for the proposed installations, the development of a capacity building and information dissemination plan, and the proposal of operation and maintenance management schemes to ensure sustainability of the installations. The implementation phase will include the provision of support for the commissioning, supervision and monitoring of the installations, the development and implementation of a capacity building program, and the provision of support for the development of an awareness raising campaign. Finally, the validation phase will include undertaking the appropriate evaluation and validation of the results.

## 3 – SCOPE OF THE CONSULTANCY

The technical backstopping is proposed to accompany the CEDRO project all throughout its operational life. At this stage, it is estimated to last 18 months. The technical backstopping will be sub-divided into a number of Tasks and activities, including the following:

	<b>Suggested Timeframe</b>
<b>Task 1: Undertake Situation Analysis and preparation of pilot projects</b>	<b>Months 1 to 6</b>
1.1: Undertake a targeted energy assessment	Months 1 & 2
1.2: Identify EE/RE project sites and Beneficiaries	Months 2 & 3
1.3: Propose EE/RE measures and Develop the related Tender documents	Months 3 & 4
1.4: Propose Capacity Building and Information Dissemination Plan	Months 4 & 5
1.5: Propose O&M management schemes to ensure sustainability	Months 5 & 6
<b>Task 2: Support the implementation of the proposed pilot projects</b>	<b>Months 5 to 18</b>
2.1: Support the procurement of goods/services and the commissioning of works	Months 5 to 10
2.2: Support the supervision and monitoring of the proposed EE/RE installations	Months 6 to 18
<b>Task 3: Implement Capacity Building &amp; support awareness raising</b>	<b>Months 5 to 18</b>
3.1: Develop and Carry out a Capacity Building Program	Months 5 to 18
3.2: Support the development of an awareness raising program	Months 5 to 18
<b>Task 4: Undertake project Validation and Support Project Replication</b>	<b>Months 14 to 18</b>
4.1: Undertake validation of project results	Months 14 to 18
4.2: Support project sustainability and replication	Months 14 to 18



The following is a breakdown of these Tasks and activities:

**Task 1: Undertake Situation Analysis and preparation of pilot projects**

**Activity 1.1: Undertake a targeted energy assessment for public buildings and facilities**

- 1.1.1 Review an inventory of public buildings / facilities
- 1.1.2 Review electricity bills and other energy bills for the last 3 years for target facilities
- 1.1.3 Review all necessary technical information including facilities drawings, equipment data sheets, catalogues, etc.
- 1.1.4 Carry out site visits to target public buildings to familiarize with existing facilities
- 1.1.5 Develop an energy assessment report.
- 1.1.6 Support the development of future EE/RE project concept proposals for future funding

**Activity 1.2: Identify EE/RE project sites and Beneficiaries**

- 1.2.1 Review previously undertaken EE/RE initiatives by other donors or organizations to avoid redundancy and possibly to identify future partners in order to ensure long term continuity and replicability;
- 1.2.2 Set technical Selection Criteria;
- 1.2.3 Set a list of potential project sites and beneficiaries;
- 1.2.4 Select definitive project sites and beneficiaries (around 50-60 public buildings). The beneficiary selection criteria and process will be coordinated and agreed with UNDP, PMU, LCECP/MEW and other stakeholders;
- 1.2.5 Develop a report describing selection criteria and selected beneficiary sites;
- 1.2.6 LCECP will carry out detailed energy audits for six public buildings/facilities (2 per target area). The technical Backstopping Agency will review the summary reports of the performed energy audits and will propose any added value as deemed relevant. (The reports will include detailed benchmarking, energy base lines, energy indicators, etc.)

**Activity 1.3: Propose EE/RE measures and develop the related Tender documents**

- 1.3.1 Identify and assess various EE/RE proposals for the selected beneficiaries/sites. The interventions in the selected implementation sites will include: i) Solar Water Heaters for Hospitals, schools, etc.; ii) Solar Photovoltaic for external street lighting within certain municipalities; iii) Energy Efficiency Lamps for public buildings such as schools, hospitals, municipalities, etc.; iv) Thermal Insulation for public buildings, mainly the roof areas; v) electricity supply based on PV for public buildings and facilities; vi) others as might be identified or deemed necessary;
- 1.3.2 Prepare the necessary EE/RE equipment specifications
- 1.3.3 Estimate the financial requirements for the recommended EE/RE works
- 1.3.4 Establish the timeframe and major milestones for the proposed works
- 1.3.5 Prepare tender documents for the procurement of goods and services for all proposed works. The Tender documents and technical specifications will include: qualification and evaluation criteria; design and engineering specifications; equipment specifications; installation requirements; testing & commissioning procedures; monitoring & verification methods; warranty arrangements, etc.

**Activity 1.4: Propose a Capacity Building and Information Dissemination Plan**

- 1.4.1 Review previously undertaken EE/RE capacity building and information dissemination activities by LCECP and others
- 1.4.2 Assess Capacity Building and Information dissemination needs (assess scope and number of target beneficiaries, type and theme of needed activities, timing and schedule, strategy and action plan, etc.)
- 1.4.3 Develop a detailed Capacity Building and Information dissemination Plan

- Activity 1.5: Propose Operation & Maintenance management schemes to ensure sustainability**
- 1.5.1 Advise on Operation & Maintenance (O&M) management schemes (the PMU will provide information on the existing O&M legal, financial and administrative frameworks in Lebanon)
  - 1.5.2 Consult with relevant stakeholders
  - 1.5.3 Identify relevant international O&M arrangements and success stories
  - 1.5.4 Propose O&M management schemes, and options for their financing in order to ensure sustainability of the EE/RE installations and sustainability of the EE/RE programme.

**Task 2: Support the implementation of the proposed pilot projects**

- Activity 2.1: Support the procurement of goods / services and the commissioning of works**
- 2.1.1 Assist in the reply to queries by prospective bidders
  - 2.1.2 Assist in the Review and Evaluation of the received bids/offers
  - 2.1.3 Assist in the establishment of general work procedures for contractors, including: supply schedules, goods inspection and certification, quality control and assurance procedures and measures, receipt of materials and goods procedures and arrangements, standard site work formats, etc.

- Activity 2.2: Support the supervision and monitoring of the EE/RE installations**
- 2.2.1 Develop checklists for site supervision of the EE/RE installations
  - 2.2.2 Develop O&M checklists taking into consideration suppliers' recommendations
  - 2.2.3 Develop checklists for performance monitoring, data collection and evaluation
  - 2.2.4 Undertake selected and targeted site supervision and testing of performance
  - 2.2.5 Support the review of certificates of works
  - 2.2.6 Provide advice on handover arrangements and spare parts arrangements
  - 2.2.7 Provide advice to address problems that may arise during the execution of works

**Task 3: Implement a Capacity Building Program and support awareness raising**

- Activity 3.1: Develop and Carry out a Capacity Building Program**
- 3.1.1 Develop all presentations related to the proposed workshops, seminars and training sessions (The PMU will be in charge of organizing these events)
  - 3.1.2 Carry out the proposed Capacity Building program (capacity building and training will take place before and during implementation of proposed EE/RE installations)
  - 3.1.3 Evaluate the impact of the Capacity Building program

- Activity 3.2: Support the development of an awareness raising program**
- 3.2.1 Support the development of a targeted outreach program aimed at local policy makers /decision makers, based on the executed EE/RE works & the energy savings results
  - 3.2.2 Support the development of a targeted outreach program aimed at the general public on energy efficiency & renewable energy technologies and benefits

**Task 4: Undertake Project Validation and Support Project Sustainability**

- Activity 4.1: Undertake validation of project results**
- 4.1.1 Collect Data and information (technical, financial, etc.) from the beneficiary sites (before and after project implementation)
  - 4.1.2 Analyse the impact on energy consumption and costs and analyze the performance and the acceptance by beneficiaries
  - 4.1.3 Issue an energy report based on the monitoring and verification results. This will form the basis for project replication and final project evaluation.

#### **Activity 4.2: Support project sustainability and replication**

- 4.2.1 Use the resulting energy indicators to assist in the development of further project proposals which may be supported by future funding.
- 4.2.2 Identify needs/gaps for the sustainability of EE/RE operations in public buildings (O&M personnel, budget, EE/RE procurement specifications, TORs, etc.)
- 4.2.3 Participate in the project's final workshop to present all findings, lessons learnt and conclusions

#### **4 – REQUIRED DELIVERABLES**

The deliverables are to be submitted in stages of draft and final. Each deliverable is to be submitted in the form of a soft copy to the PMU Project Manager. The time needed by the PMU for the Review of each submitted deliverable is 2 weeks. All deliverables are to be submitted in the English Language. The Required deliverables under the terms of reference are:

- Deliverable 1: Report on Energy Assessment \_\_\_\_\_ Month 2
- Deliverable 2: Report on Identification of projects Beneficiaries \_\_\_\_\_ Month 3
- Deliverable 3: Complete Tender documents for all identified EE/RE projects \_\_\_\_\_ Month 4
- Deliverable 4: Capacity Building & Info dissemination Strategy, Scope and Plan \_\_\_\_\_ Month 5
- Deliverable 5: Proposal for O&M management schemes \_\_\_\_\_ Month 6
- Deliverable 6: Support the implementation of the proposed pilot projects \_\_\_\_\_ Month 5 to 18
- Deliverable 7: Implement Capacity Building & support awareness raising \_\_\_\_\_ Month 5 to 18
- Deliverable 8: Undertake project Validation & support project Replication \_\_\_\_\_ Month 14 to 18

Parallel to these deliverables, the Consultancy will also comprise a number of missions to Lebanon, including inception and fact-finding missions, capacity building and selected site supervision/monitoring missions, as well as validation and final missions. The number and duration of missions are to be proposed by the Technical Backstopping Agency.

#### **5 – TERMS OF EXECUTION OF THE CONSULTANCY**

The Start date for this consultancy is **immediate**. The overall term of execution of this consultancy service is spread over **18 months**, effective from contract signature date. The awarded party has to comply with the terms of reference of this consultancy service, and to have all deliverables submitted and approved before/by the last working day of the consultancy period. Extensions, if deemed necessary, can only be granted through mutual agreement between the parties.

#### **6 – TERMS OF PAYMENT**

The payment currency is **USD**, and the payments will be made in line with the following:

- **10%** Upon Contract Signature
- **90% (in installments)** Upon the satisfactory submission and approval of each deliverable

COUNCIL FOR DEVELOPMENT & RECONSTRUCTION  
BEIRUT - LEBANON

No. : 4504/1

Beirut, 10/09/2008

Ms. Marta Ruedas  
Resident Representative  
United Nations Development Programme  
  
United Nations House  
Beirut, Lebanon

Dear Ms. Ruedas,

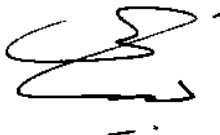
We refer to your letter of the 23<sup>rd</sup> of August 2008 relative to CEDRO II project which is *Phase II* of the earlier approved CEDRO project, funded by the Government of Spain through the Lebanon Recovery Fund and managed by the UNDP;

After review and approval, we enclose one signed original copy of the project document entitled "*CEDRO II – Country Energy Efficiency & Renewable Energy Demonstration project for the Recovery of Lebanon*" and have retained one for our files.

Assuring you of our continuing collaboration, we remain,

Sincerely yours,

Council for Development and Reconstruction



Nabil A. El-Jisr  
President



00059517

UNDP OFFICE - BEIRUT
FILE: 0201300/CDR
15 SEP 2008
INFO: ER
ACTION: EC

cc. ER