



**Submission Form
To
The Lebanon Recovery Fund Steering Committee**

To be completed by the Recovery and Reconstruction Cell (RRC)	
Meeting No:	Date of Meeting:
Item No:	Programme/project

*(To be completed by the Participating UN Organisation
and endorsed by Working Group Chair)*

To:	Date of Submission
Lebanon Recovery Trust Fund Steering Committee	10 October 2007
From:	Contact:
United Nations Development Programme	Mona Hammam UNDP Resident Representative United Nations Development Programme UN-House, Riad El Solh Sq. P.O.Box 11-3216 Beirut Email: mona.hammam@undp.org
Through: Working Group	Contact: Telephone number, email
<input type="checkbox"/> Endorsement <input type="checkbox"/> Comments	
Proposed submission, if approved would result in:	Proposed submission resulted from:
<input checked="" type="checkbox"/> Continuation of existing programme/project <input type="checkbox"/> New programme/project <input type="checkbox"/> Other (explain)	<input type="checkbox"/> National Authorities initiative within national priorities <input checked="" type="checkbox"/> UN Agency initiative within national priorities <input type="checkbox"/> Other:
Programme/project title: "CEDRO II" Country Energy efficiency and renewable energy Demonstration Project for Recovery Of Lebanon (South, Bekaa and Akkar)	
Amount of funds requested for proposed programme/project: 3,500,000 USD	
Estimated number of beneficiaries: Direct: 60 – 80 public buildings and 3 main district centres Indirect: 250,000 – 300,000 individuals	
Request against specific earmarking or unearmarked: un-earmarked	
Amount of indirect costs requested: 7%: 229,000 USD	

1. Background

Lebanon imports around 97% of its energy needs in the form of fossil fuel, which places a very heavy burden on the economy. 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 electricity demand and large financial subsidies to EDL (around 1.0 billion USD in 2006).

As a result of the July 2006 conflict, the situation of the energy sector was further aggravated, resulting in a reduction of 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.

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.

To date, Lebanon does not have any special policies or incentives 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.

2. Purpose of Proposed Programme/Project

The proposed 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 a planned 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 all public buildings to establish a demonstrative model that would encourage the private sector and the general public to take up similar initiatives; 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.

Furthermore, the proposed CEDRO 2 project builds on the activities already initiated under LRF CEDRO 1 (2007-2009) project which targets the installation of energy efficiency and renewable energy equipment in public buildings and facilities (schools, hospitals, municipal street lighting, etc.) in three areas (South, Bekaa, and Akkar) highly affected by the recent conflicts. 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.

3. Evaluation of Proposals by the Working Group

Provide concise summary evaluation of proposal against:

<i>General principles and selection criteria</i>		
(a)	Must be explicitly based on Lebanon's national priorities and needs, as noted in the public domain.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(b)	Must fall with the UN's mandate, and must address the Millennium Development Goals, directly or indirectly through a human rights-based approach.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(c)	Must promote and ensure national ownership.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(d)	Must be at an acceptable level of risk, within UN parameters.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(e)	Must fall within the areas of UN's comparative advantage.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(f)	The UN must be an appropriate system to deliver the intervention.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(g)	The UN response must be properly designed for and within the Sector setting, must be effective, coherent, context-sensitive, and cost-efficient and the outcomes, sustainable.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(h)	Must avoid duplication of and significant overlap with the activities of other actors.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(i)	Must build on existing capacities, strengths and experience.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
(j)	Must promote consultation, participation and partnerships.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
If one or more of the above criteria is not met, please explain:		

Implementability

	2007	2008	2009
<i>Estimated commitments (\$mill)</i>	_____	_____	_____
<i>Estimated disbursements (\$mill)</i>	_____	_____	_____

Does the project correspond to national priorities? Yes No

Please elaborate

Project approved by Ministry of Finance (Line Ministry)

on 05 October 2007 (date)

4. Review by Recovery and Reconstruction Cell (RRC)

Check on Programme/Project Proposal Format Contents

- | | |
|--|--|
| <input type="checkbox"/> Cover sheet (first page) | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| <input type="checkbox"/> Logical Framework | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| <input type="checkbox"/> Programme/Project Justification | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| <input type="checkbox"/> Programme/Project Management Arrangements | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| <input type="checkbox"/> Risks and Assumptions | Yes <input type="checkbox"/> No <input type="checkbox"/> |

- Risks and Assumptions
- Budget
- Support Cost

- Yes No
- Yes No
- Yes No

*Overall review of programme submission
Recommendations*

Elaborate

5. Decision of the LRF Steering Committee

- Approved for a total budget of S...3,500,000
- Approved with modification/condition
- Deferred

Reason/Comments

Elaborate

Oct. 10, 2007
Date

6. Follow-up action taken by the Administrative Agent

- Project consistent with provisions of the Letter of Agreement with donors (if applicable)

.....
Signature

.....
Date



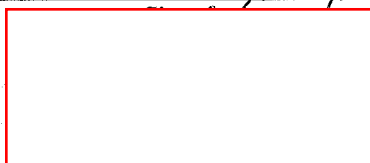
**LEBANON RECOVERY FUND
PROJECT DOCUMENT COVER SHEET**

Participating UN Organisation: United Nations Development Programme (UNDP)	Sector: Energy and Environment
Programme/Project Manager Name: Edgard Chehab Address: UNDP Lebanon Telephone: +961 (0)3 240034 E-mail: edgard.chehab@undp.org	Working Group Chair Name: Address: Telephone: E-mail:
Programme/Project Title: "CEDRO II" Country energy efficiency and renewable energy demonstration project for the recovery of Lebanon	Programme/Project Location: All Lebanon
Programme/Project Description: The project aims at supporting Lebanon's recovery, reconstruction and reform activities through the implementation of an end-use energy conservation programmes and through the removal of institutional and market barriers for the activation of sustainable energy applications.	Total Programme/Project Cost: LRF: 3,500,000 USD (equiv. 2,500,000 Euros) Government Input: Other: Total: 3,500,000 USD (equiv. 2,500,000 Euros)
	Programme/Project Duration: 2009 - 2011
Development Goal: Supporting Lebanon's recovery, reconstruction and reform activities through the implementation of an energy efficiency and renewable energy programme to help improve national patterns of energy consumption and costs.	
Immediate Objectives: <ol style="list-style-type: none"> 1. Reducing energy consumption and costs of public sector buildings and facilities 2. Setting an enabling environment for the implementation of a national sustainable energy strategy 	
Outputs and Key Activities: 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 will monitor the direct impacts and benefits of the installed equipment on the beneficiaries' energy bills. Furthermore, the project will assess and address the institutional and market barriers that hinder the promotion and activation of sustainable energy applications in Lebanon.	
Working Group Review Date: _____ RRC Review Date _____ Steering Committee/Project Approval Group Approval Date: _____	

On behalf of:

Chair, LRF SC

UNDP Lebanon



Date

Name/Title

Oct. 26, 2007 Sami Haddad
Interim Rep. UNDP Lebanon

2. Logical Framework

Objectives	Measurable indicators	Means of verification	Important assumptions
Development Objective <i>Enable green recovery, reconstruction and reform programmes that reduce energy consumption and costs</i>	Decrease in energy consumption/cost at the national level	- Comparison of annual energy consumption per GDP	Continued government commitment to energy saving policies and programmes
Immediate Objectives: <i>Reducing energy consumption and costs of public sector buildings and facilities</i> <i>Setting an enabling environment for the implementation of a sustainable energy strategy</i>	Direct savings on beneficiary energy bills Increased demand on energy efficiency and renewable energy equipment	- Surveys of beneficiary energy bills after project completion - Market surveys after project completion	(Immediate Objective to Development Objective) Beneficiaries properly use and maintain the installed equipment Sufficient mechanisms are developed to remove institutional and market barriers
OUTPUTS: <i>Installation of energy efficiency and renewable energy equipment</i> <i>Availability of validated data on reduced energy consumption and costs</i> <i>Increased knowledge and awareness on Energy Efficiency and Renewable Energy applications</i> <i>Availability of policy measures and incentive measures for the activation of sustainable energy applications</i>	Number of beneficiary buildings and facilities Reduced energy/cost bills and reduced CO2 emissions Number of participating beneficiaries and stakeholders Policies and Incentive measures	- Survey of beneficiary sites utilising installed equipment - Energy bills and energy measuring equipment used to collect data	(Outputs to immediate objective) Improper operation & maintenance of equipment (e.g. absence of spare parts) Reduction in conventional energy prices (through subsidies or other) Insufficient public interest Unstable political situation
ACTIVITIES:	INPUTS:		(Activity to output)
1. Situation analysis and preparation of energy efficiency and renewable energy projects 1.1 Undertake a targeted energy assessment 1.2 Identify project proposals and beneficiary sites 1.3 Develop tender documents for all identified works 1.4 Develop capacity building & info dissemination plan 1.5 Propose operation & maintenance management schemes	150,000 USD <i>(by international and local experts)</i>	- Report on energy assessment - Report on identification of beneficiary sites - Complete set of Tender documents - Capacity building and awareness plan - Proposal on O&M schemes	Lack of data Low level of collaboration from beneficiaries
2. Implementation of energy efficiency and renewable energy projects Undertake Bidding & Procurement of goods & services	2,450,000 USD <i>(by international and local experts)</i>	- Award of contracts - Commissioning of Installations	Low acceptance of new technology by beneficiaries Delays in equipment delivery

<p><i>Undertake Commissioning of works</i></p> <p><i>Undertake Supervision and monitoring of works</i></p> <p><i>Undertake testing of performance and data collection</i></p>		<ul style="list-style-type: none"> - Satisfactory execution of works - Data on reduced energy consumption 	Delays in sub-contracted works on site
<p>3. <i>Development of financial incentives for sustainable energy applications</i></p> <p>3.1 <i>Assessment of existing financial environment</i></p> <p>3.2 <i>Design and lobby for new financial mechanisms</i></p>	170,000 USD <i>(by international and local experts)</i>	<ul style="list-style-type: none"> - Report on existing financial environment for similar issues & Report on proposed financial incentives per sector - Meetings on proposed financial incentives - Implementation of at least one financial incentive 	Unstable political situation
<p>4. <i>Development of legislative reform to promote sustainable energy applications</i></p> <p>4.1 <i>Assessment of related legislation</i></p> <p>4.2 <i>Design and lobby for new legislation</i></p>	170,000 USD <i>(by international and local experts)</i>	<ul style="list-style-type: none"> - Report on current legislation & Report on proposed legislation - Meetings on proposed legislation - Adoption of at least one legal reform - Development and adoption of national energy efficiency law 	Unstable political situation
<p>5. <i>Development and implementation of capacity building and awareness raising programs</i></p> <p>5.1 <i>Develop material for technical workshops</i></p> <p>5.2 <i>Implement technical workshops</i></p> <p>5.3 <i>Develop material for awareness raising activities</i></p> <p>5.4 <i>Implement awareness raising activities</i></p>	100,000 USD <i>(by international and local experts)</i>	<ul style="list-style-type: none"> - Organisation of workshops, lectures, one-on-one trainings with the different stakeholders 	Insufficient participation in awareness raising and capacity building to sustain the project
<p>6. <i>Project Validation and Sustainability</i></p> <p>6.1 <i>Undertake validation of project results</i></p> <p>6.2 <i>Enable project sustainability and replication</i></p> <p>6.3 <i>Undertake final project evaluation</i></p>	60,000 USD <i>(by international and local experts)</i>	<ul style="list-style-type: none"> - Report on validation of project results - Independent Project evaluation report - New project proposal 	
7. <i>Project Management</i>	171,000 USD		
8. <i>Project Overhead</i>	229,000 USD		

3. Programme/Project Justification

Lebanon imports around 97% of its energy needs in the form of fossil fuel, which places a very heavy burden on the economy. 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 electricity demand and large financial subsidies to EDL (around 1.0 billion USD in 2006).

As a result of the July 2006 conflict, the situation of the energy sector was further aggravated, resulting in a reduction of 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.

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.

To date, Lebanon does not have any special policies or incentives 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.

The proposed 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 a planned 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 all public buildings to establish a demonstrative model that would encourage the private sector and the general public to take up similar initiatives; 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.

Furthermore, the proposed CEDRO 2 project builds on the activities already initiated under LRF CEDRO 1 (2007-2009) project which targets the installation of energy efficiency and renewable energy equipment in public buildings and facilities (schools, hospitals, municipal street lighting, etc.) in three areas (South, Bekaa, and Akkar) highly affected by the recent conflicts. 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.

The proposed project includes implementation of demonstration projects and development of policy-level changes, awareness raising and capacity building. 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.

The CEDRO 2 project is consistent with the European's initiatives in general and with the Spanish Government in specific, 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 in energy efficiency and renewable energy to other countries in the Mediterranean Basin which will contribute further direct support to the Lebanese Government during its reconstruction effort.

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 including the installation of 450 solar water heater units in early 2006, and recently initiated the installation of individual and collective solar water heater systems in conflict damaged areas in Lebanon as part of the early recovery programme. 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.

Moreover, UNDP is also working in various sectors within the early recovery programme through its wide network of offices and projects distributed throughout Lebanon. Several countries have participated in UNDP early recovery and reconstruction programme and committed 16.0 million USD to UNDP for early recovery interventions, and additional resources are currently under negotiation.

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 market transformation towards energy efficiency and renewable energy technologies.

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.

4. Management Arrangements

Implementation arrangements

The following implementation arrangements will be undertaken:

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, 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 Lebanese Center for Energy Conservation Project (LCECP) will be in charge of undertaking a number of energy audits for public buildings and facilities, and will also 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 Swedish SWH project financed by the SIDA, and a Greek SWH project financed by the Hellenic Aid.

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 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.

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

Project Timeframe

The implementation of the proposed programme is 2 years.

Project Implementation Partners

National Partners: Ministry of Energy and Water and Ministry of Finance

International Partners: Spanish Agency for International Cooperation

Project Components

Output 1: Implementation of model energy efficiency and renewable energy applications for public buildings and facilities

This output involves the implementation of energy efficiency and renewable energy applications for public buildings and facilities based on a targeted energy assessment, followed by the procurement and installation of the required goods and services. All activities will be closely analysed and monitored to ensure proper implementation and to analyse, in detail, the cost-benefit of such projects.

Lebanon will benefit from a reduction in national expenditure on the cost of electricity to government buildings with a relatively small investment cost. Such national savings have direct positive implications on national debt. Furthermore, this output would set a trend aimed at encouraging the private sector and the public at large to adopt similar cost-effective sustainable energy applications.

The energy efficiency and renewable energy applications will include:

- Replacement of incandescent lamps with CFLs and thermal ballast with electronic ones
- Motion sensors and timers for lighting control
- Boiler tuning and efficiency enhancement
- PF correction and enhancement
- HVAC works (insulation, air balance, etc.)
- Roof thermal insulation
- Windows film protection
- Computer management applications
- Standby power consumption
- Building Management System (BMS)
- Better O&M approach including preventive maintenance
- General awareness at all employment level
- Solar Thermal Applications
- Photovoltaic applications
- Others as deemed necessary

Output 2: Setting an enabling environment for the implementation of a Sustainable Energy Strategy

To date, no financial incentives or legislation exist in Lebanon that promote sustainable energy applications. This output tackles the financial and legal sectors and aims at proposing sector reforms to encourage the Lebanese market to shift towards more sustainable energy use and discourage energy inefficiencies.

In this output, various scenarios, opportunities, and approaches needed to create financial incentives and legal changes will be investigated and new modalities, policies/regulations and mechanisms will be developed to ultimately facilitate the development of a local market for energy efficiency measures, solar thermal applications among other renewable energy applications. Different actors will be involved in this output including the Ministry of Finance, Central Bank, private and public financial institutions (such as Bank Al Iskan).

The project will build on the assessments currently undertaken by LCECP of policies, legislation and regulations that constitute barriers to market development and penetration of energy efficiency and renewable energy technologies. Such considerations include import tariff structures, taxation and incentives or disincentives, public sector procurement guidelines as well as equipment standards and codes.

Some of the proposed measures include, but are not limited to, the following:

- National energy efficiency law developed, issued and adopted
- Energy efficiency standards / considerations integrated into the high energy consuming appliances
- Legal framework developed and adopted for the creation of the energy / solar thermal fund
- Energy efficiency measures and solar thermal applications Integrated within the permits issued for the new industrial / commercial facilities
- Solar thermal applications reflected in the current building code
- Property and municipality taxes legislation reviewed and modified to create certain incentives for solar thermal applications
- Necessary

5. Analysis of risks and assumptions

Since energy efficiency and renewable energy programmes and projects are relatively new approaches to the Government of Lebanon and to the general Lebanese public, the proposed programme may face some barriers and risks to proper implementation.

These barriers and risks can be summarized as follows:

- a- Improper operation and maintenance of the installed energy efficiency and renewable energy equipment by the beneficiaries
- b- Low level of collaboration by the beneficiaries during the programme implementation
- c- Low level of acceptance of the new installed technologies
- e- Insufficient funds to implement the proposed programme especially after the energy assessment outcomes

On another level, the proper use, operations and maintenance of the installed equipment is necessary to ensure programme continuation. The proper implementation of the project through qualified national and international personnel, including adequate technical capacity building and awareness raising activities, will minimise the impact of the above listed risks.

In addition, continued or additional energy subsidisation by the Government of Lebanon may pose a risk to the continued adoption of this programme. Any changes in the political situation in Lebanon cannot also be neglected. Both of these risks are beyond the control of the proposed programme.

6. Programme/Project Budget

The budget would utilise the Standard Format agreed by UNDG Financial Policies Working Group.

CATEGORY	ITEM	UNIT COST	NUMBER OF UNITS	TOTAL COST (USD)
1. Personnel Incl. staff and consultants				220,000
2. Contracts Incl. companies, professional services, grants				440,000
3. Training				40,000
4. Transport (local)				10,000
5. Supplies and commodities				50,000
6. Equipment (including installation)				2,450,000
7. Travel				15,000
8. Miscellaneous				46,000
9. Agency Management Support* (7%)				229,000
TOTAL				3,500,000

* The rate will be within the UNDG agreed range of 5% to 9%, with overall expected average of 7%, of the total of categories 1-8. To the maximum extent possible such costs should be integrated into categories 1-7 if appropriately determined as "direct costs attributable to the programme/project" thereby reducing the overall indirect cost rates.