

A. Definition of the Project

A.1 Title	Solar Water Heating Loan Facility
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A.2 Type of project	
Solar thermal	X

A.3 Stakeholders	<p><i>Partners involved in the project activities:</i> Italian Ministry for the Environment and Territory United Nations Environment Programme Agence Nationale pour la Maîtrise de l'Energie (ANME)</p> <p><i>Other main Partners involved:</i> State Utility, Société Tunisienne de l'Electricité de Gaz (STEG) Mediterranean Renewable Energy Center (MEDREC)</p> <p><i>This project involves other partners such as several local financial institutions and SWH suppliers in the form of Memorandum of Understanding</i></p>
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A.3 Location of the project	
City / Town / Village	
Brief description of the location	Tunisia (the whole country)

A.4 Forecasted Planning for the project			
Status of the project	Phases	Status	Forecasted timing
	Idea / concept Pre feasibility study On going Done	X X	Completed jointly by UNEP and ANME Started February 2005

B. Stakeholders

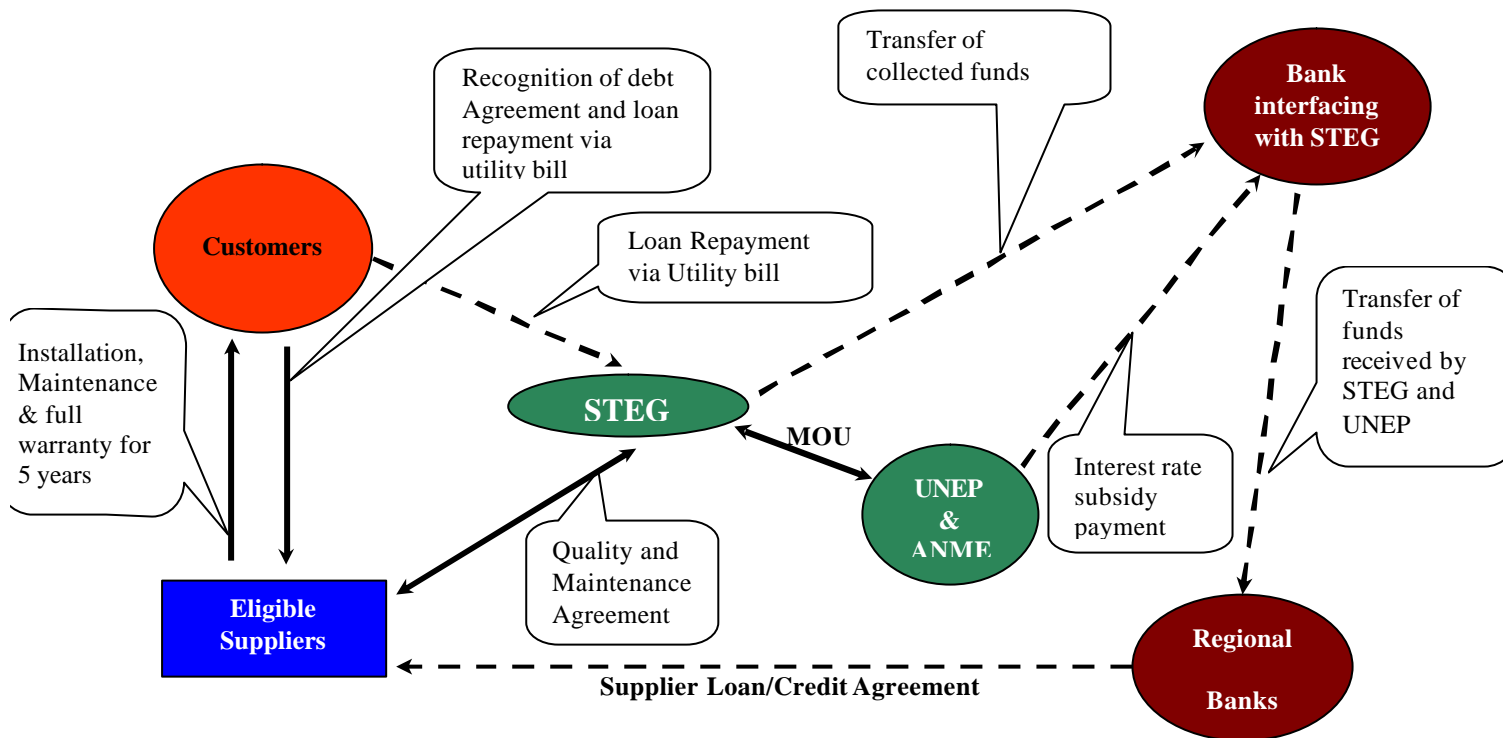
B.1 Main promoters	
Name	<i>Italian Ministry for the Environment and Territory</i>
Type of organisation	Governmental
Address	Via C.Colombo, 44 00147 Roma – Italy
Contact person	Ms C.Glorioso
Telephone/ fax	Tel: +39 06 57228182 Fax : +39 06 57228177
e-mail	glorioso.carmen@minambiente.it
Name	<i>United Nations Environment Programme</i>
Type of organisation	International Organisation
Address	Tour Mirabeau, 39/43 Quai André Citroën, 75015 Paris, France
Contact person	Mrs Myriem Touhami
Telephone/ fax	Tel: +33 1 44 37 16 30 Fax: + 33 1 44 37 14 74
e-mail	Myriem.touhami@unep.fr
Name	<i>Agence Nationale pour la Maîtrise de l'Energie</i>
Type of organisation	Public
Address	3, rue 8000 – Montplaisir, 1073, Tunis, B.P. 213
Contact person	Mr. Imed Thabet
Telephone/ fax	Tel: +216 71 787 700 Fax: + 216 71 784 624
e-mail	imed_thabet@aner.nat.tn

B.2 Other partners	
Name	<i>Société Tunisienne de l'Electricité et de Gaz</i>
Type of organisation	Public
Address	38 rue Kémal Ataturk, 1080 Tunis
Contact person	
Telephone/ fax	
Name	<i>Mediterranean Renewable Energy Center (MEDREC)</i>
Type of organisation	Public
Address	MEDREC Imm Abou Soufiane Angle Rues N°8000 et 8003 Montplaisir, 1073, BP 213, Tunis
Contact person	M. Sami Marrouki
Telephone/ fax	Tel: + 216 71 283 477
e-mail	marrouki@medrec.nat.tn

C. Technical description of the project
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C.1 Technical description of the project
<p>Based on the Tunisian Government's strategic orientations and the already carried out assesment of the existing barriers to investment, UNEP/DTIE jointly with the National Agency for Energy Efficiency and the state utility, the Société Tunisienne de l'Electricité et de Gaz (STEG), will implement in Tunisia a financial support mechanism, the Solar Water Heating System (SWH) Loan Facility (USD 1 million) with potential to support the market and to provide capacity building and training for local solar water heating suppliers.</p> <p>The Facility is intended to help local financial institutions build loan portfolio in the SWH area by implementing an interest rate subsidy facility that will effectively lower the interest rate for a loan to purchase a SWH system. This facility will help to partially reduce the "equipment cost barrier".</p> <p>The state utility, STEG, will help promote the use of solar water heating systems by covering a larger number of customers, living either in the urban or rural areas and by recovering the monthly loan payment via a STEG customer's utility bill. This reduces the risk of a consumer defaulting on the loan, which lowers the bank's risk, which in turn lowers the interest rate charged by the banks. This financial support mechanism will contribute to the creation of a sustainable market and long-term viability of the entire sector.</p> <p>The Facility will phase out over 18-24 months to allow smooth transition with the Tunisian Government subsidy, leading to 20,000 to 30,000 Solar Water Heating (SWH) system installations. This impact will increase as financial institutions build confidence and begin to expand retail lending to the SWH sector. The facility would promote a competitive market for SWH by offering an interest rate subsidy through a number of local banks for SWH credit loans, thus subsidizing the borrower.</p> <p>The objectives of this Solar Water Heating Loan Facility with STEG are to lower the charged interest rates to the customers, to ensure financial institutions' participation by reducing the risk in entering a new market segment, to support the development of partnerships between commercial banks and SWH suppliers and to increase the total emissions reduction by having collective installations.</p>

C.2 Photo/drawing of the project/building:



C.3 Typical indicators	Investment – euros	1.600.000,00
	Population concerned	20000 to 30000 households

C.4 Detailed technical indicators	
M ² installed	11548 m ²

D. GHG emissions: reduced / avoided

D.1 Type of GHG reduced or avoided	
CO ₂	7,100 metric ton per year

D.2 Base line	
Description of the level of reference	<ul style="list-style-type: none"> - We assume that annual savings per ton of oil equivalent is 0.035 per m². - We assume that 2.7 tCO₂ per ton of oil equivalent (this would ultimately depend on the approach used for baseline calculation). - We assume that the lifespan of a SWH system is 15 years
Other elements	

D.3 Total emission reduction per year	
In Tons CO ₂ equivalent	7,100 per year

D.4 Estimated CER gains – US dollars			
Estimated price (US\$/tCO ₂ e)	3x 110 000	5x 110 000	10x 110 000
Total estimated gain	330 000	550 000	1 100 000

E. Financial aspects

E.1 Estimated costs – euro	
Total investment	1 680 000
Allocation	
Development costs	1 680 000

F. Contribution of the project to sustainable development
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Natural environment	The project will ensure sustainable global benefits in terms of long-term GHG emission reductions. This will be achieved through introducing a renewable energy alternative for the provision of hot water in the majority of Tunisian households. This project implemented jointly with STEG will ensure a large deployment of solar water heating systems.
Social (employment, health, education, ...)	The project would ensure the creation of 700 direct jobs by 2010, plus the indirect employment generated by the second-tier participants: wholesalers, distributors, maintenance contractors.
Economy (local, national, ...)	This project, in partnership with STEG, would make it possible to relaunch the solar water heating market and to make it sustainable. This project would ensure long-term viability of the entire sector, with several players: banks, manufacturers, importers, operators, wholesalers, distributors, maintenance companies.
Environmental impact assessment studies	. Cumulative sales over the period 2004-2010 would reach 240.000 m ² , and would thus generate total energy savings to the tune of about 200.000 tep, equivalent of 540,000 TCO ²

G. Other relevant information

List of available documents	<ul style="list-style-type: none"> - Tunisia Baseline Study carried out by UNEP - Solar Water Heating Loan Facility Concept Paper - Solar Water Heating National Programme Study - MOU between IMET, UNEP and ANME referring to the financing of this project. - MOU between IMET and UNEP, referring to the development of financial support mechanisms in the Mediterranean region. - Communication plan for this project finalized and ready to be launched
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