



UN Development Programme
Trinidad & Tobago - Port of Spain



Project No. 00047198

Project Title: Pilot Project on the Use of Renewable Energy Technologies in Trinidad and Tobago - Introduction of Solar Water Heating Systems in the Tourism (Host Home) Sector.

Start Year: 2006

End Year: 2006

Implementing Partner (Executing Agency): The Government of the Republic of Trinidad and Tobago


Cooperating Agency: Ministry of Energy and Energy Industries; Tourism Development Company

Responsible Party (Implementing Agency): Tobago Bed and Breakfast Assoc
Trinidad Host Home Assoc

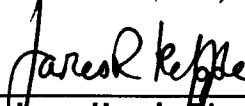
Budget as of January 16, 2006 (UN exchange rate: US\$1.00 = TT\$6.26)			
Donor	Fund	Amount (TT\$)	Amount (US\$)
TRI-BPTT	30000 Programme Cost Sharing	213,499	34,105
TRI-MinEng	30071 Programme cost sharing -GOV1	89,861	14,355
TRI-TDC	30072 Programme cost sharing -GOV2	39,989	6,388
Total Budget		343,349	54,848
Total Expenditure		0	0
Award Total		343,349	54,848
Unprogrammed/Unfunded		0.00	0.00

Revision Type:
Brief Description:

The Ministry of Energy and Energy Industries (MEEI), Government of the Republic of Trinidad and Tobago (GORTT), has articulated a vision on the introduction of renewable energy sources to supplement existing hydrocarbon-based sources of energy in the promotion of sustainable development. Consultation among the MEEI, the Tourism Development Company Ltd. (TDC), bpTT and UNDP identified the Tourism (Host Home) Sector as an appropriate opportunity to pilot a renewable energy project, the outcomes of which would help to inform a national renewable energy policy and programme. To this end, the UNDP-implemented Global Environment Facility - Small Grants Programme (GEF/SGP) facilitated the development of a pilot project with the Tobago Bed and Breakfast Association (TBBA) and the Trinidad Host Home Association (THHA) respectively, on the substitution of electric water heaters in member host-home facilities with solar water heater systems. This project document provides for Government's contribution, through the MEEI and TDC, to UNDP towards the implementation of the TBBA/THHA pilot project.

Agreed by: 
Senator Dr. The Honourable Lenny Saith, Minister of Energy and Energy Industries for and on behalf of the Government of the Republic of Trinidad and Tobago

Date: 24th JANUARY, 2006

Agreed by: 
Mr. James Hepple, Director of Tourism, Tourism Development Company Ltd.

Date: 26/1/06

Agreed by: 
Dr. Ipyang Eibong-Harstrup, Resident Representative, UNDP

Date: 27.1.06

Section I. Project Narrative

Part I. Situation Analysis

Trinidad and Tobago is a tropical twin-island state that is richly endowed with renewable and non-renewable natural resources. The hydrocarbon sector continues to be the main driver of the economy contributing in 2004 to 34% of GDP (Source: Review of the Economy 2003/2004. Ministry of Finance, 2004) and 85% of total exports (Source: Annual Economic Survey 2004. Central Bank of Trinidad and Tobago). There is recognition, however, that these resources are ultimately finite resources. From an economic perspective, the relatively abundant oil and natural gas reserves, coupled with the relative cheapness of hydrocarbon-generated electricity, constitutes a major barrier to the promotion and adoption of more costly renewable energy technologies in Trinidad and Tobago. Hydrocarbon-based energy sources account for nearly 100% of electricity generation in the country (Source: <http://www.energy.gov.tt>). From an environmental perspective, the universal use of hydrocarbon resources for energy production is a major source of atmospheric pollution and global climate change. The Government of the Republic of Trinidad and Tobago's policy is geared towards the promotion and adoption of renewable energy as an alternative to the hydrocarbon-based energy sources in accordance with the provisions of the UN Framework Convention on Climate Change (UNFCCC) which the GORTT ratified on 24 June, 1994.

Part II. Strategy

The proposed Pilot Solar Water Heating Project in Trinidad and Tobago is being implemented mainly to provide the Government of the Republic of Trinidad and Tobago with first hand information and knowledge on system performance and efficiencies to be obtained from this solar energy application. The information will influence the formulation of a national renewable energy policy and programme for the country. The greening of the Tourism Sector has been selected as the main area for focusing the renewable energy technology thrust and therefore the pilot solar water heating project is aimed at this sector with the emphasis being placed on the host home subsector. To this end, consultations among the Ministry of Energy and Energy Industries (MEEI), the Tourism Development Company (TDC) and bpTT have been taking place and the UNDP-implemented Global Environment Facility – Small Grants Programme (GEF/SGP) was appointed to facilitate the development of the pilot project. The TBBA and the THHA are the implementing agencies for the project which will involve the substitution of electric water heaters in member host-home facilities with solar water heater systems.

The Government of the Republic of Trinidad and Tobago has engaged UNDP to manage the implementation of the project and also report on its outcomes. The Government of the Republic of Trinidad and Tobago, through the MEEI and the TDC, and bpTT will jointly fund the pilot project. This Project Document and **Annexes 1a and 1b** attached hereto provide for Government of the Republic of Trinidad and Tobago's contribution to UNDP, through the MEEI and TDC respectively, towards the implementation of the pilot project. In addition to the MEEI and TDC, bpTT will contribute funds under a separate Memorandum of Understanding (MOU) and Cost-Sharing Agreement (CSA) with UNDP.

The project proposals prepared by the Implementing Agencies TBBA and THHA are attached as **Annexes 2 and 3** respectively.

The objectives of the project are to:

- reduce operating costs, through medium to long-term savings on electricity costs and maintenance and replacement of electrical heaters;
- reduce the use of fossil fuel in the production of electricity for water heating by promoting the use of solar energy systems;
- increase environmental conservation in the bed and breakfast industry;
- utilize the improved environmental conservation measures as a marketing tool; and
- document the costs and benefits of installation and operation of solar water heating systems.

The expected outcomes of the project are:

- Reductions of emissions associated with the use of fossil fuel for electricity generation.
- Increased profitability:
 - a) lower energy costs
 - b) lower maintenance cost
 - c) Improved marketability of properties.
- Increased knowledge of cost/benefit analysis and appropriate technology.
- Increased growth of "green tourism" in Tobago.

Part III. Management Arrangements.

The project will be implemented using the NGO National Execution (NEX) modality. As referred to above, the NGOs TBBA and THHA will be the Implementing Agencies for the project. UNDP will provide project management support and, as such, will be responsible for the co-ordination of all activities required to achieve the intended outputs of the project.

The MEEI, TDC and bpTT will be responsible for provision of funds to UNDP as indicated in the Project Results and Resources Framework (Section II) and the Budget and Workplan (Section III).

The UNDP Country Office in Port of Spain, Trinidad and Tobago, will be responsible for implementation of the activities stated in the Project Results and Resources Framework (Section II) and the Budget and Workplan (Section III) and subsequent reporting to the MEEI, TDC and bpTT.

UNDP will disburse funds to the TBBA and THHA respectively based on the following schedule:

Description	Amount
Upon receipt of funds from MEEI, TDC and bpTT and on signing of respective Agreements with TBBA and THHA	1 st disbursement equivalent to 50% of total budget for equipment and logistics for 5 host homes in Tobago to TBBA and 6 host homes in Trinidad to THHA, respectively.
Upon receipt of satisfactory quarterly progress reports	2 nd and subsequent disbursements, each equivalent to 25% of total budget, per quarter for equipment and logistics for 5 host homes in Tobago to TBBA and 6 host homes in Trinidad to THHA, respectively.

Part IV. Monitoring and Evaluation

A monitoring record format was developed at technical workshops for members of the islands' host home sector facilitated by a bpTT-sponsored expert in June 2002. Progress in the implementation of the project will be monitored through the convening of a Monitoring and Evaluation Committee. The Committee may include representatives of the TBBA, the THHA, the Tobago House of Assembly (Tourism Division - Department of Tourism; Department of Natural Resources and the Environment), MEEI, Ministry of Public Utilities and the Environment (MPU&E), TDC, bpTT, technical/scientific expertise (Trinidad and Tobago Solar Energy Society (TTSES) or a technical expert, Environment Tobago, and UNDP. The Terms Of Reference (TOR) of the Monitoring and Evaluation Committee is attached as **Annex 4**.

Part V. Legal Context

This Project Document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the participating Government of the Republic of Trinidad and Tobago and the United Nations Development Programme, signed on 20 May 1976.

The following types of revisions may be made to this Project Document with the signature of the UNDP Resident Representative only, provided he or she is assured in writing that the other signatories of the Project Document have no objections to the proposed changes:

- a) Revisions in, or addition of any of the Annexes of the Project Document.
- b) Revisions that do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the re-arrangement of inputs already agreed to or by cost increases due to inflation.
- c) Mandatory annual revisions, which re-phase the delivery of agreed project inputs, or increased expert, or other costs due to inflation, or take into account agency expenditure flexibility.

Section II. Project Results and Resources Framework

Intended outcome as stated in Country Results Framework:		Inputs	
Intended Outcomes		US\$ *	TT\$
Reduction in national emissions of GHG through increased use of renewable energy and significant reduction in national environmental hazards.			
Outcome Indicators: Programme of support in solar water heaters for 6 Tobago host homes and 6 Trinidad host homes completed.			
1. Increased profitability through a) lower energy costs, b) lower maintenance costs and c) improved marketability of properties.			
2. Increased knowledge of cost/benefit analysis and appropriate technology.			
3. Growth of "green tourism in Trinidad and Tobago"			
4. Replication in other host homes, as well as in guest houses and hotels.			
Baseline: Two hotels and a few private residences in Tobago have solar water heating systems. No host homes in Trinidad have solar water heating systems.			
Target: Ensure adequate support for the installation and operation of solar water heating systems among 5 host homes in Tobago and 6 host homes in Trinidad as a cost-effective and environment-friendly technology that can be easily replicated initially throughout the tourism sector in Trinidad and Tobago.			
1. Conversion from electric water heaters currently in use in the tourism host home sector to solar water heating systems.	1.1 Procurement and installation of solar water heating systems in each of 5 host homes in Tobago and 6 host homes in Trinidad.	49,939	312,620
	1.2 Monitoring of economic indicators at each of the eleven (11) host home facilities participating in the pilot project	1,321	8,267
	1.3 Reporting to stakeholders on the results of the pilot project		
2. Project Management (UNDP). Includes overall project coordination, administration and reporting.	2.1 Preparation and coordination of signed agreements with both funding and executing parties. 2.2 Disbursement of funds to THHA and TBBA for implementation. 2.3 Coordination of M&E. 2.4 Reporting to MEEI, TDC and bpTT.	3,588	22,462
	2.1 UNDP Country Office General Management Support (GMS) [7% of Government of the Republic of Trinidad and Tobago (MEEI & TDC) and Private Sector (bpTT) contributions]		
	TOTAL	54,848	343,349

* UN exchange rate: US\$1.00 = TT\$6.26 at 1 January, 2006.

Section III – Total Budget and Workplan

The total project budget is TT\$343,349 (US\$54,848)

The funding for this initiative will come from the following sources:

FUNDING SOURCE	AGENCY	DESCRIPTION								TOTAL	
		Equipment		Logistics		Monitoring and Evaluation (M&E)		UNDP GMS		US\$	TT\$
		US\$	TT\$	US\$	TT\$	US\$	TT\$	US\$	TT\$		
Government of the Republic of Trinidad and Tobago	MEEI	13,416	83,982					939	5,879	14,355	89,861
	TDC	4,650	29,106			1,321	8,267	418	2,616	6,389	39,989
Business Sector	bpTT	27,097	169,631	4,776	29,900			2,231	13,967	34,104	213,499
	TOTAL	45,163	282,719	4,776	29,900	1,321	8,267	3,588	22,462	54,848	343,349

Notes:

- Abbreviations:
MEEI - Ministry of Energy and Energy Industries
TDC - Tourism Development Company Limited
bpTT - BP Trinidad and Tobago LLC
GMS – General Management Support
- UN exchange rate: US\$1.00 = TT\$6.26 at 1 January, 2006
- UNDP GMS: calculated at 7% of MEEI, TDC and bpTT contributions respectively.

Annual Work Plan

**United Nations Development Programme
Trinidad and Tobago**

Year: 2006

Project Number: 00047198

Project Title: Pilot Project on the Use of Renewable Energy Technologies in Trinidad and Tobago – Introduction of Solar Water Heating Systems in the Tourism (Host Home) Sector

Annual Work Plan (2006)

The following workplan was developed by the UNDP on the basis of dialogue with the implementing and Cooperating agencies.

Expected Output	Key Activities	Timeframe (2006)				Responsible Partner	Planned Budget				
		Q1	Q2	Q3	Q4		Fund	Donor	Budget Description	US\$	TT\$
Conversion from electric water heaters currently in use in the tourism host home sub-sector to solar water heating systems and resultant increased profitability of host homes in terms of lower energy costs, lower maintenance costs and improved marketability of host homes.	Installation and operation of solar water heating systems in 11 host homes	X	X			TBBA; THHA; Suppliers	MEEI TDC bpTT	72200 - Equipment	49,939	312,620	
	Monitoring	X	X	X	X	UNDP Stakeholders		Monitoring	1,321	8,267	
Project Management	Administration of grant resources to TBBA, THHA	X	X	X	X	UNDP	MEEI TDC bpTT	UNDP CO General Management Support (GMS)	3,588	22,462	
	Reporting				X						
Total										54,848	343,349

UN exchange rate: US\$1.00 = TT\$6.26 at 1 January, 2006

Annual Work Plan (cont'd)

Process	Responsibility	Timeframe
Implementation Phase		
Grant disbursements	UNDP	On signing; 1 st progress report (3 months); Final report (1 year)
Installation and operation of solar water heating systems in 11 host homes	TBBA/THHA/Suppliers	6 months
Monitoring	UNDP/Stakeholders	Monthly
End of Project Phase		
Evaluation	UNDP/Stakeholders	One month before expiration of MOA
Reporting	UNDP	Upon submission of final report and financial report.



Trinidad and Tobago

ANNEX 1a

COST-SHARING AGREEMENT BETWEEN THE MINISTRY OF ENERGY AND ENERGY INDUSTRIES (MEEI) AND THE UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

This Cost Sharing Agreement is made between the Minister of Energy and Energy Industries (hereinafter referred to as "the Donor") acting on behalf of the Government of the Republic of Trinidad and Tobago (hereinafter referred to as "GORTT") and the United Nations Development Programme (hereinafter referred to as "UNDP"). The Donor and UNDP are hereinafter collectively referred to as the "Parties".

WHEREAS the Donor hereby agrees to contribute funds (hereinafter referred to as "the contribution") to UNDP on a cost-sharing basis for the implementation of a Pilot Project on Solar Water Heating Systems in Trinidad and Tobago (Annexes 2 and 3).

WHEREAS UNDP is prepared to receive and administer the contribution for the implementation of the project.

WHEREAS the GORTT has agreed to the contribution of the Donor to the project.

WHEREAS UNDP and the Donor shall designate Implementing Agencies, the Tobago Bed and Breakfast Association (TBBA) and the Trinidad Host Home Association (THHA), for the implementation of the programme/project (hereinafter referred to as "the Implementing Agency").

NOW THEREFORE, the Parties hereby agree as follows:

Article I. Duration

1. The Agreement shall be for a term of one (1) year from the date it enters into force.

Article II. The Contribution

1. The Donor shall, in accordance with the schedule of payments set out below, contribute to UNDP the amount of TT\$89,861 (US\$14,355)* of which TT\$83,982 (US\$13,416) is for project implementation and TT\$5,879 (US\$939) is UNDP's General Management Support (GMS).

The contribution shall be deposited in UNDP's local account:
Republic Bank
Independence Square, Port of Spain
Account #:150285260601

<u>Schedule of payment</u>	<u>Amount</u>
On signing	TT\$89,861

* UN Operational Rate of Exchange: US\$1.00 = TT\$6.26 at 1 January, 2006

2. The value of the payment, if made in a currency other than United States dollars, shall be determined by applying the United Nations operational rate of exchange in effect on the date of payment. Should there be a change in the United Nations operational rate of exchange prior to the full utilization by the UNDP of the payment, the value of the balance of funds still held at that time will be adjusted accordingly. If, in such a case, a loss in the value of the balance of funds is recorded, UNDP shall inform the Donor with a view to determining whether any further financing could be provided by the Donor. Should such further financing not be available, the assistance to be provided to the programme/project may be reduced, suspended or terminated by UNDP.
3. The above schedule of payment takes into account the requirement that the full payment shall be made in advance of the implementation of planned activities. It may be amended to be consistent with the progress of project delivery.
4. UNDP shall receive and administer the payment in accordance with the regulations, rules and directives of UNDP.
5. All financial accounts and statements shall be expressed in United States dollars (US\$) and Trinidad and Tobago dollars (TT\$).

Article III. Utilization of the Contribution

1. The implementation of the responsibilities of UNDP and of the Implementing Agency pursuant to this Agreement and the programme/project document shall be dependent on receipt by UNDP of the contribution in accordance with the schedule of payment as set out in Article II, paragraph 1, above.
2. If unforeseen increases in expenditures or commitments are expected or realized (whether owing to inflationary factors, fluctuation in exchange rates or unforeseen contingencies), UNDP shall submit to the Donor on a timely basis a supplementary estimate showing the further financing that will be necessary. The Donor may use its best endeavours to obtain the additional funds required.
3. If the payments referred to in Article II, paragraph 1, above are not received in accordance with the payment schedule, or if the additional financing required in accordance with paragraph 2 above is not forthcoming from the Donor or other sources, the assistance to be provided to the project under this Agreement may be reduced, suspended or terminated by UNDP.

4. Any interest income attributable to the contribution shall be credited to UNDP Account as specified in Article II above.

Article IV. Administration and Reporting

1. Project management and expenditures shall be governed by the regulations, rules and directives of UNDP and, where applicable, the regulations, rules and directives of the Implementing Agency.
2. UNDP headquarters and country office shall provide to the Donor all or parts of the following reports prepared in accordance with UNDP accounting and reporting procedures.

2.1 For Agreements of one year or less:

- (a) From the country office, a quarterly report summarizing programme/project activities and impact of activities as well as provisional financial data;
 - (b) From the country office (or relevant unit at headquarters in the case of regional and global projects) within six months after the date of completion or termination of the Agreement, a final report summarizing programme/project activities and impact of activities as well as provisional financial data;
 - (c) From UNDP Bureau of Management/Comptroller's Division, an annual certified financial statement as of 31 December every year to be submitted no later than 30 June of the following year;
 - (d) From UNDP Bureau of Management/Comptroller's Division on completion of the programme/project, a certified financial statement to be submitted no later than 30 June of the year following the financial closing of the project.
3. If special circumstances so warrant, UNDP may provide more frequent reporting at the expense of the Donor. The specific nature and frequency of this reporting shall be specified in an annex of the Agreement.

Article V. Administration and Support Services

1. In accordance with the decision and directives of UNDP's Executive Board, the contribution includes a charge of 7 per cent for the additional cost incurred by UNDP in administering the contribution.
2. The aggregate of the amounts budgeted for the project, together with the estimated costs of reimbursement of related support services, shall not exceed the total resources available to the project under this Agreement as well as funds which may be available to the project for project costs and for support costs under other sources of financing.

Article VI. Equipment

Ownership of equipment, supplies and other properties financed from the contribution shall vest in UNDP. Matters relating to the transfer of ownership by UNDP shall be determined in accordance with the relevant policies and procedures of UNDP.

Article VII. Auditing

1. The contribution shall be subject to the internal and external auditing procedures provided for in the financial regulations, rules and directives of UNDP. Should an Audit Report of the Board of Auditors of UNDP to its governing body contain observations relevant to the contributions, such information shall be made available to the Donor.
2. In order to verify that all transactions between the Parties under this Agreement satisfy all the terms and conditions of this Agreement, the Donor shall have the right to inspect and audit any relevant records relating to costs which were shared under this Agreement for a period up to two years after the termination of this Agreement, provided that the UNDP shall have the right to exclude proprietary matters, trade secrets, formulas or processes, from such inspection and audit. Should the results reveal overpayments or underpayments, appropriate adjustments shall be made.

Article VIII. Completion of the Agreement

1. UNDP shall notify the Donor in writing when all activities relating to the project have been completed.
2. Notwithstanding the completion of the project, UNDP shall continue to hold unutilized payments until all commitments and liabilities incurred in the implementation of the project have been satisfied and project activities brought to an orderly conclusion.
3. If the unutilized payments prove insufficient to meet such commitments and liabilities, UNDP shall notify the Donor and consult with the Donor on the manner in which such commitments and liabilities may be satisfied.
4. Any payments that remain unexpended after such commitments and liabilities have been satisfied shall be disposed of by UNDP in consultation with the Donor.

Article IX. Termination of the Agreement

1. This Agreement may be terminated by UNDP or by the Donor and shall cease to be in force thirty (30) days after either of the Parties have given notice in writing to the other Party of its decision to terminate the Agreement.
2. Notwithstanding termination of this Agreement, UNDP shall continue to hold unutilized payments until all commitments and liabilities incurred in implementation of the project up to the date of termination have been satisfied and project activities brought to an orderly conclusion.

3. Any payments that remain unexpended after such commitments and liabilities have been satisfied shall be disposed of by UNDP only after agreement in writing from the Donor.

Article X. Amendment of the Agreement

1. After consultations have taken place between the Parties, the Agreement may be amended by written consent between the Donor and UNDP. The written consent to this effect shall become an integral part of the Agreement.

Article XI. Entry Into Force

This Agreement shall enter into force upon signature and deposit by the Donor of the contribution in accordance with the schedule of payment set out in Article II, paragraph 1 of this Agreement and the signature of the Project Document by the concerned parties.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto, have signed the present Agreement in the English language in duplicate originals.

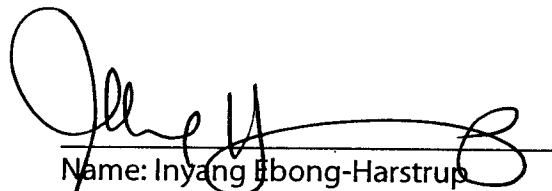
For the Donor:

For UNDP:



Name: Senator Dr. The Honourable Lenny Saith
Title: Minister of Energy and Energy Industries

Date: 24th JANUARY, 2006



Name: Inyang Ebong-Harstrup
Title: Resident Representative

Date: 27.1.06



Trinidad and Tobago

ANNEX 1b

COST-SHARING AGREEMENT BETWEEN THE TOURISM DEVELOPMENT COMPANY LTD. (TDC) AND THE UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

This Cost Sharing Agreement is made between the Tourism Development Company Limited (hereinafter referred to as "the Donor") acting on behalf of the Government of the Republic of Trinidad and Tobago (hereinafter referred to as "GORTT") and the United Nations Development Programme (hereinafter referred to as "UNDP"). The Donor and UNDP are hereinafter collectively referred to as the "Parties".

WHEREAS the Donor hereby agrees to contribute funds (hereinafter referred to as "the contribution") to UNDP on a cost-sharing basis for the implementation of the project 'A Pilot Project on Greening the Tobago Bed and Breakfast Industry – Introduction of Solar Water Heating Systems' in Trinidad and Tobago (Annexes 2 and 3).

WHEREAS UNDP is prepared to receive and administer the contribution for the implementation of the project.

WHEREAS the GORTT has agreed to the contribution of the Donor to the project.

WHEREAS UNDP and the Donor shall designate Implementing Agencies, the Tobago Bed and Breakfast Association (TBBA) and the Trinidad Host Home Association (THHA), for the implementation of the programme/project (hereinafter referred to as "the Implementing Agency").

NOW THEREFORE, the Parties hereby agree as follows:

Article 1. Duration

1. The Agreement shall be for a term of one (1) year from the date it enters into force.

Article II. The Contribution

1. The Donor shall, in accordance with the schedule of payments set out below, contribute to UNDP the amount of TT\$39,989 (US\$6,388)* of which TT\$37,373 (US\$5,970) is for project implementation and TT\$2,616 (US\$418) is UNDP's management fee.

The contribution shall be deposited in UNDP's local account:
Republic Bank
Independence Square, Port of Spain
Account #:150285260601

<u>Schedule of payment</u>	<u>Amount</u>
On signing	TT\$39,989

* UN Operational Rate of Exchange: US\$1.00 = TT\$6.26 at 1 January, 2006

2. The value of the payment, if made in a currency other than United States dollars, shall be determined by applying the United Nations operational rate of exchange in effect on the date of payment. Should there be a change in the United Nations operational rate of exchange prior to the full utilization by the UNDP of the payment, the value of the balance of funds still held at that time will be adjusted accordingly. If, in such a case, a loss in the value of the balance of funds is recorded, UNDP shall inform the Donor with a view to determining whether any further financing could be provided by the Donor. Should such further financing not be available, the assistance to be provided to the programme/project may be reduced, suspended or terminated by UNDP.
3. The above schedule of payment takes into account the requirement that the first payment shall be made in advance of the implementation of planned activities. It may be amended to be consistent with the progress of project delivery.
4. UNDP shall receive and administer the payment in accordance with the regulations, rules and directives of UNDP.
5. All financial accounts and statements shall be expressed in United States dollars (US\$) and Trinidad and Tobago dollars (TT\$).

Article III. Utilization of the Contribution

1. The implementation of the responsibilities of UNDP and of the Implementing Agency pursuant to this Agreement and the programme/project document shall be dependent on receipt by UNDP of the contribution in accordance with the schedule of payment as set out in Article I, paragraph 1, above.
2. If unforeseen increases in expenditures or commitments are expected or realized (whether owing to inflationary factors, fluctuation in exchange rates or unforeseen contingencies), UNDP shall submit to the Donor on a timely basis a supplementary estimate showing the further financing that will be necessary. The Donor may use its best endeavours to obtain the additional funds required.
3. If the payments referred to in Article I, paragraph 1, above are not received in accordance with the payment schedule, or if the additional financing required in accordance with paragraph 2 above is not forthcoming from the Donor or other sources, the assistance to be provided to the project under this Agreement may be reduced, suspended or terminated by UNDP.

4. Any interest income attributable to the contribution shall be credited to UNDP Account.

Article IV. Administration and Reporting

1. Project management and expenditures shall be governed by the regulations, rules and directives of UNDP and, where applicable, the regulations, rules and directives of the Implementing Agency.
2. UNDP headquarters and country office shall provide to the Donor all or parts of the following reports prepared in accordance with UNDP accounting and reporting procedures.

2.1 For Agreements of one year or less:

- (a) From the country office, a quarterly report summarizing programme/project activities and impact of activities as well as provisional financial data;
 - (b) From the country office (or relevant unit at headquarters in the case of regional and global projects) within six months after the date of completion or termination of the Agreement, a final report summarizing programme/project activities and impact of activities as well as provisional financial data;
 - (c) From UNDP Bureau of Management/Comptroller's Division, an annual certified financial statement as of 31 December every year to be submitted no later than 30 June of the following year;
 - (d) From UNDP Bureau of Management/Comptroller's Division on completion of the programme/project, a certified financial statement to be submitted no later than 30 June of the year following the financial closing of the project.
3. If special circumstances so warrant, UNDP may provide more frequent reporting at the expense of the Donor. The specific nature and frequency of this reporting shall be specified in an annex of the Agreement.

Article V. Administration and Support Services

1. In accordance with the decision and directives of UNDP's Executive Board, the contribution includes a charge of 7 per cent for the additional cost incurred by UNDP in administering the contribution.
2. The aggregate of the amounts budgeted for the project, together with the estimated costs of reimbursement of related support services, shall not exceed the total resources available to the project under this Agreement as well as funds which may be available to the project for project costs and for support costs under other sources of financing.

Article VI. Equipment

Ownership of equipment, supplies and other properties financed from the contribution shall vest in UNDP. Matters relating to the transfer of ownership by UNDP shall be determined in accordance with the relevant policies and procedures of UNDP.

Article VII. Auditing

1. The contribution shall be subject to the internal and external auditing procedures provided for in the financial regulations, rules and directives of UNDP. Should an Audit Report of the Board of Auditors of UNDP to its governing body contain observations relevant to the contributions, such information shall be made available to the Donor.
2. In order to verify that all transactions between the Parties under this Agreement satisfy all the terms and conditions of this Agreement, the Donor shall have the right to inspect and audit any relevant records relating to costs which were shared under this Agreement for a period up to two years after the termination of this Agreement, provided that the UNDP shall have the right to exclude proprietary matters, trade secrets, formulas or processes, from such inspection and audit. Should the results reveal overpayments or underpayments, appropriate adjustments shall be made.

Article VIII. Completion of the Agreement

1. UNDP shall notify the Donor in writing when all activities relating to the project have been completed.
2. Notwithstanding the completion of the project, UNDP shall continue to hold unutilized payments until all commitments and liabilities incurred in the implementation of the project have been satisfied and project activities brought to an orderly conclusion.
3. If the unutilized payments prove insufficient to meet such commitments and liabilities, UNDP shall notify and consult with the Donor on the manner in which such commitments and liabilities may be satisfied.
4. Any payments that remain unexpended after such commitments and liabilities have been satisfied shall be disposed of by UNDP in consultation with the Donor.

Article IX. Termination of the Agreement

1. This Agreement may be terminated by UNDP or by the Donor and shall cease to be in force thirty (30) days after either of the Parties have given notice in writing to the other Party of its decision to terminate the Agreement.
2. Notwithstanding termination of this Agreement, UNDP shall continue to hold unutilized payments and liabilities incurred in implementation of the project up to the date of termination have been satisfied and project activities brought to an orderly conclusion.

3. Any payments that remain unexpended after such commitments and liabilities have been satisfied shall be disposed of by UNDP in consultation with the Donor.

Article X. Amendment of the Agreement

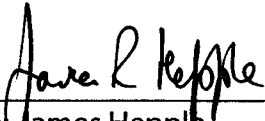
1. After consultations have taken place between the Parties, the Agreement may be amended by written consent between the Donor and UNDP. The written consent to this effect shall become an integral part of the Agreement.

Article XI. Entry Into Force

This Agreement shall enter into force upon signature and deposit by the Donor of the contribution in accordance with the schedule of payment set out in Article 1, paragraph 1 of this Agreement and the signature of the Project Document by the concerned parties.

IN WITNESS WHEREOF, the undersigned, being duly authorized thereto, have signed the present Agreement in the English language in duplicate originals.

For the Donor:

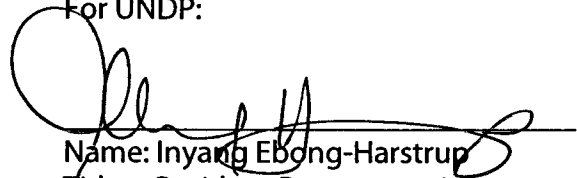


Name: James Hepple
Title: Director of Tourism

Date:

26/1/06

For UNDP:



Name: Inyang Ebong-Harstrup
Title: Resident Representative

Date:

27. 1. 06

ANNEX 2

PROJECT PROPOSAL

*A Pilot Project on Greening the Tobago Bed and Breakfast Industry
– Introduction of Solar Water Heating Systems*

1. THE ORGANISATION

- a. Name and address of the organization.
Tobago Bed and Breakfast Association
- b. Name(s) of principal officer(s) and principal contact for this application.
*Alison Sardinha, President. Tel.: 639-2737; 660-7748
Orville Moore. Tel.: 639-0629; 678-0009; Fax: 639-3996; E-mail: orv@tstt.net.tt*
- c. Whether your organization is a (1) community organization, (2) indigenous subnational or national NGO, (3) national affiliate of an international NGO, (4) international, i.e., an NGO with headquarters in another country, or (5) a research or training institution.
NGO - Tobago
- d. History, governance and funding of the organisation, i.e., when established, how structured and organized, membership, and total annual budget. (Please attach a copy of the Constitution and latest financial audit report or statements)
Established 1986. Governed by a Management Committee. Membership organisatio. Members pay dues. 20 members (8 currently financial). Constitution. No previous funding. Founded to help bed and breakfast operators to get their share of accommodation and to function efficiently.
- e. Capacity of the organization to carry out the proposed activity. Briefly describe the resources (skilled and unskilled manpower; materials and equipment; technical; financial; etc.) owned and/or available to the organization to implement the proposed activity.
Capacity exists in organization to carry out project; has access to voluntary external expertise.
- f. Previous relevant experience. Briefly describe any previous projects which were successfully completed (title; location; duration; number and types of persons involved; budget; problems and constraints; achievements).

None.

2. PROJECT BACKGROUND

- a. Describe the problem(s) and causes, particularly human factors, which the project addresses.

High cost of electricity. High annual maintenance cost and high replacement cost of electric water heating system. Low use of alternative (renewable) energy as an environmental conservation measure.

- b. Identify the key stakeholders (interest groups, individuals) affected by the problem.

*Bed and breakfast operators in Tobago
Home owners
Industry/commercial sector
Hotels and restaurants
Institutions
Poor individuals or households with electric water heaters*

- c. Identify the key stakeholders (interest groups, individuals) who can contribute to solving the problem(s).

*All of the stakeholders listed in (b) above.
bpTT (grant support)
TDC (grant support; promotion of incentives for using green technology in the tourism industry)
Government (grant support; technical support)
UNDP (project management and provision of technical support)
Volunteers (project monitoring and evaluation; technical support)*

3. THE PROJECT OBJECTIVES

- a. State the title of the project.

A Pilot Project on Greening the Tobago Bed and Breakfast Industry – Introduction of Solar Water Heating Systems

- b. State the objective(s) of the project.

- *To reduce operating costs*
- *To reduce the use of fossil fuel in the production of electricity for water heating by promoting the use of solar energy systems*
- *To increase environmental conservation in the bed and breakfast industry*
- *To utilize the improved environmental conservation measures as a marketing tool*
- *To document the costs and benefits of installation and operation of solar water heating systems*

4. THE GEF/SGP FOCAL AREAS AND OPERATIONAL PROGRAMMES CRITERIA

- a. Based on the information in the following table, state the GEF/SGP Focal Area and corresponding Operational Programme that the project best addresses.

GEF/SGP FOCAL AREA	OPERATIONAL PROGRAMME *
Protection of Biodiversity	1. Arid and semi-arid ecosystems
	2. Coastal, marine and freshwater ecosystems
	3. Forest ecosystems
	4. Mountain ecosystems
	13. Agricultural Biodiversity
Prevention or reduction of Climate Change and global warming	5. Energy conservation and efficiency
	6. Renewable energy
	11. Environmentally-sustainable transport
Prevention or reduction of pollution of International Waters	8. Waterbody
	9. Integrated land and water area
	10. Contaminants
All focal areas (cross-cutting)	12. Integrated ecosystem management

* Operational Programme 7: Low greenhouse gas-emitting technologies; not applicable to the GEF/SGP

GEF Focal Area: *Prevention or reduction of Climate Change and global warming*

GEF Operational Programme: *The project best addresses OP 6 - Renewable energy. OP 5 - Energy conservation and efficiency, is also addressed.*

- b. Briefly explain how the project addresses the stated GEF/SGP Focal Area and Operational Programme?

Reduction of use of fossil-based fuel. Solar energy is an alternative, renewable energy source, the use of which produces no green-house gases.

5. THE PROJECT LOCATION

- a. State the location of the project site. *The project sites are located in Tobago.*

List of villages/areas: Arnos Vale; Canaan; Pembroke; Scarborough..

6. THE PROJECT ACTIVITIES

- a. Activities to be undertaken in the project.

(i) Describe the activities to achieve the objectives of the project.

- *Technical workshop for organisation's members (Completed)*
- *Conduct survey to assess water-heating needs of each property (Completed)*
- *Prepare a budget for purchasing, installation, monitoring etc. (Completed)*
- *Develop schedule for monitoring and evaluation*
- *Develop data collection instrument.*
- *Technical training session for property owners/manager*

- *Purchasing and installation of water heating units*
- *Monitoring/data collection*
- *Evaluation after one year and preparation of report.*
- *Publicity activities; Media release/radio talk show, site visits.*

(ii) Describe any proposed support activity required, e.g. technical advice, site visits, training, etc.

- *Technical training session*
- *Site visits*
- *Technical assistance in preparing data collection instrument and evaluation*

b. Describe how the activity(ies) proposed addresses one or more of the following areas:

(i) Support of community initiatives aimed at protecting the environment or promoting ecologically sustainable development.

- *Reduces use of fossil fuel and supports the initiative for Tobago to be a green industrial location*

(ii) Strengthening of an indigenous or local communities, CBO/NGO or technical institution so that it may contribute more effectively, at village, subnational or national level, to protect the environment or promote ecologically sustainable development.

- *Improves the potential for the successful development of sustainable tourism, by improving the capacity of stakeholders to practice ecologically sustainable activities.*

(iii) Increasing the spread of knowledge among local communities, NGOs and technical institutions about environmental projects and practices.

- *Increase the knowledge among stakeholders of the use of renewable energy, particularly solar heating and the application of statistical tools for assessment of the viability of initiatives.*

(iv) Achievement of other goals. (If so, specify).

- *Income generation.*
- *Fostering of team spirit and networking in the tourism sector.*
- *Demonstrating the benefits of collective activity.*

7. CONTEXT OF THE ACTIVITY

a. Relationship, if any, to local, district or national Government agencies or programmes.

- *The draft national energy policy of T&T advocates the increased use of renewable energy. The THA –Department of Tourism is promoting the development of green tourism.*
- *The Government of T&T is engaged in promoting activities for reducing the emission of green house gases. (Climate Change Convention.)*

- b. Relationship, if any, to other relevant programmes, eg. GEF (large; medium-sized) project; UNDP Country Programme; other UN agency programme; Bilateral/Multilateral programme.
- *Trinidad and Tobago is one of 16 countries implementing the regional Caribbean Renewable Energy Development Programme (CREDP) partly funded by the GEF. Renewable Energy Technologies (RET) considered in CREDP include grid-connected renewable power (e.g. wind farm, bagasse cogeneration, and small hydro), renewable rural electrification (e.g. photovoltaics), and solar water heating.*

8. PROJECT SCHEDULE

- a. Actual or proposed starting date. *Proposed start date is 1 December, 2005.*
- b. Proposed duration of the activity. *One year.*
- c. Anticipated completion date. *30 November, 2006.*
- d. Attach a completed schedule of all project activities, using the following guide:
- See attached project schedule (Appendix1)*

9. PROJECT PARTICIPANTS

- a. Organizations/individuals involved in the activity.
- *Tobago Bed & Breakfast Association*
 - *Department of Tourism, THA.*
 - *Eugene Blackett and Associates (Tobago-based supplier agent representative)*
- b. Organizations/individuals who will benefit from the activity (if different).
- c. Involvement of unemployed persons, especially women and youth.
- *Majority of Association members are self-employed.*
 - *Unemployed persons will be invited to the training session.*
 - *Unemployed can be employed in installing units on a long term basis*

10. ANTICIPATED PROJECT RESULTS (EXPECTED OUTPUTS)

- a. Impacts on the environment with respect to GEF/SGP Focal Area and Operational Programme.
- *Reductions of emissions associated with the use of fossil fuel for electricity generation.*
- b. Impacts on participants/beneficiaries (NGO/CBO/Community).
- *Increased profitability.*
 - a) *lower energy costs*
 - b) *lower maintenance cost*
 - c) *Improved marketability of properties.*
 - *increased knowledge of cost/benefit analysis and appropriate technology.*

- c. Other anticipated results.

The pilot program will initiate a movement for the growth of "green tourism in Tobago"

- d. Perceived value of the activity as a model for possible replication elsewhere.

The activity has significant potential if proven to be successful for replication in Tobago among non members of the Association.

11. PROJECT MONITORING, EVALUATION AND REPORTING

- a. State the persons who will participate in the monitoring/evaluation of the project.
The establishment of a Monitoring and Evaluation Committee is proposed, which may include representatives of the following organizations:
- *Tobago Bed and Breakfast Association (implementing organization)*
 - *bpTT*
 - *TDC*
 - *THA-Divisions of Tourism; Environment; Planning*
 - *Ministry of Energy and Energy Industries*
 - *Ministry of Public Utilities and Environment*
 - *Trinidad and Tobago Electricity Commission*
 - *Department of engineering, UWI or Trinidad and Tobago Solar Energy Society*
 - *UNDP/SGP personnel (NSC members; National Coordinator; UNDP staff)*
- b. List the indicators to be used in the monitoring and evaluation activities.
- *A list of selected properties.*
 - *A budget – Itemized*
 - *A monitoring schedule prepared.*
 - *A data collection instrument prepared (Appendix 2)*
 - *Bi-monthly data records*
 - *Record of technical training session (Register, program, photographs, feedback, forms)*
 - *Invoices, receipt guarantees, contracts, photos of units on site*
 - *Monitoring personnel identified*
 - *Records of publicity activities e.g newspaper clipping*
- c. Proposed procedures (including possible use of outside personnel) for evaluating project results and/or communicating project experience to others.
- *Site visits and data recording by M&E committee.*
 - *Invite Dr. G.V. Raju from Tata/BP Solar, India*
 - *Prepare newspaper articles on experience*

12. ASSUMPTIONS AND RISKS

- a. State any assumptions on which the successful outcome of the project is based.
- *Full cooperation of Association members.*
 - *Funding commitments*
 - *Suitable weather*
 - *Growth of tourism*

It is anticipated that all of the above assumptions will be realised.

b. Identify any risks that may prevent or hamper the successful conclusion of the project.

- *Adequate funding*
- *Unsound equipment*
- *Lack of cooperation from participants*

c. State the approaches and strategies to be used to avoid or minimize the risks.

- *Sound budgeting*
- *Guarantees from supplier(s)*
- *Participatory approach used in identifying the pilot phase participants/members*
- *Signed agreements with participants*

13. PROJECT INPUTS

a. Available manpower (type and source)

- *Management team for organizing activities of members of Association*
- *Technical expertise (Solar expert sponsored by bpTT; voluntary expertise provided to Association by Mr. Eugene Blackett and Mr. Kamau Akili)*

b. Available material (type and source)

Solar water heating equipment – Eugene Blackett and Associates

c. Available equipment (type and source)

See (b) above.

d. Funding (Please complete the attached budget form as accurately as possible)

Cash contributions:

i) Total project budget:	TT\$ 137,857.73
ii) Organization's contribution:	TT\$ 0.00
iii) Other grants/loans:	
bpTT	TT\$ 83,534.26*
TDC	TT\$ 17,103.84*
Ministry of Energy and Energy Industries	TT\$ 37,219.63*

* Note: Includes 7% (TT\$9,018.73) assigned for project management by UNDP

In-kind contributions:

i) TBBA/Host Home Owners:	Facilities; implementation; monitoring.
ii) bpTT/Tata BP Solar, India:	Technical expertise.
iii) Division of Tourism, THA:	Technical expertise.
iv) Environment Tobago:	Technical expertise.

14. SUSTAINABILITY

Describe the measures to be undertaken during the project to ensure the continuation of the project activities after the GEF/SGP grant funding has been utilised.

- *Engaging individuals from UWI to assist with the monitoring process.*
- *Tobago Bed and Breakfast Association will provide funds and personnel to ensure that the necessary monitoring and reporting takes place.*

15. PROJECT LOGICAL FRAMEWORK

See Appendix 3 attached.

16. BUDGET (TT\$)

Tobago Host Home Facilities selected for solar water heating demonstration project.

	Name	Location	No. of Guest Rooms	Recommended installation	Cost (TT\$)
1	FORD, Victor	Arnos Vale	3	2 x 250 litres	25,756.00
2	JONES, Christiana	Pembroke	6	2 x 200 litres	21,180.00
3	MACKAY, Ean	Arnos Vale	4	2 x 200 litres	21,180.00
4	MOORE, Orville	Canaan	6	2 x 200 litres 1 x 150 litres	30,577.00
5	ROBERTS, Ann	Scarborough	3	2 x 250 litres	25,756.00
TOTAL			26	2,700 litres	124,449.00

Summary:

A) Collector/tank equipment costing:

1 units x \$9,397.00 per unit (150 litres)	=	9,397.00
6 units x \$10,590.00 per unit (200 litres)	=	63,540.00
4 units x \$12,878.00 per unit (250 litres)	=	51,512.00

Total	=	124,449.00
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Note: The total of TT\$124,449.00 includes the costs of transport and handling, installation and materials as follows:

Transport and handling:	820.00
Installation:	6,140.00
Materials:	1,540.00

Total:	8,500.00
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B) Monitoring and Evaluation:	=	4,390.00
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C) Project management (7% of donor funding)	=	9,018.73
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Total Budget	=	<u>137,857.73</u>
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A detailed budget and proposed funding sources is attached in Appendix 4.

APPENDIX 3: PROJECT LOGICAL FRAMEWORK

Project Title: *A Pilot Project on Greening the Tobago Bed and Breakfast Industry – Introduction of Solar Water Heating Systems*
Organisation: Tobago Bed and Breakfast Association

A. PROJECT GOAL, OBJECTIVE AND OUTPUTS

PROJECT STRATEGY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Development Goal: Use of renewable energy by hospitality sector (Small Guest House)</p>	<p>Solar water heaters installed and operating in all properties.</p> <ul style="list-style-type: none"> - reduced electricity consumption after 1 year 	<ul style="list-style-type: none"> - site visits and documentation - analysis of Electricity billing and Guest register - progress reports to GEF/SGP 	<ul style="list-style-type: none"> - levels of occupancy will be monitored or increased. - Climatic/weather patterns will not change drastically. - No natural disasters.
<p>Project Objective or Purpose: To supply and install solar water heaters at 5 small guest houses in Tobago as a pilot project to demonstrate use and benefits of solar water heating.</p>	<p>Water heaters installed and operating in all properties.</p> <ul style="list-style-type: none"> - reduced electricity consumption after 1 year 	<ul style="list-style-type: none"> - site visits and documentation - analysis of Electricity billing and Guest register - progress reports to GEF/SGP 	<ul style="list-style-type: none"> - levels of occupancy will be monitored or increased. - Climatic/weather patterns will not change drastically. - No natural disasters
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Solar water heaters installed in 5 host homes 2. Data collected from one year of monitoring 3. Project report focusing on methodology, results of analysis and experiences of participants. 	<p>Water heaters installed in 5 host homes and functioning.</p> <ul style="list-style-type: none"> - completed data sets - completed project report 	<ul style="list-style-type: none"> - site visit and documentation. - Independent review of data source and datasets. - Report review 	<ul style="list-style-type: none"> - Water heaters functional - Participating host homes supply necessary data - Technical expertise is available to prepare report.

B. PROJECT OUTPUTS, ACTIVITIES AND INPUTS

PROJECT STRATEGY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Output 1: Solar water heaters installed in 5 host homes	Water heaters installed and functional in 5 host homes.	Site visit and documentation	Water heaters functional.
Activities: Issuing of order to purchase, transport, install and commission units.	Bills, water heaters installed and functional in 5 host homes .	Site visit and documentation	Supplier will be able to deliver.
Inputs: Cash, Labour	Bills, water heaters installed and functional in 5 host homes.	Site visit and documentation.	Funds are available.

PROJECT STRATEGY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Output 2: Data collected from one year of monitoring	Completed data sets.	Independent review of data sources and data sets.	Participating host homes supply necessary data.
Activities: Collecting data from participating host homes.	Completed data sets	Independent review of data sources and data sets.	Participating host homes supply necessary data.
Inputs: T&TEC billing Host homes participation	T&TEC bills.	Independent review of data sources and data sets	Participating host homes supply necessary data.

PROJECT STRATEGY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Output 3: Project report focusing on methodology, results or analysis and experiences of participants.</p>	<p>Completed project report</p>	<p>Report reviews.</p>	<p>Technical expertise is available to prepare report.</p>
<p>Activities: Collecting data Report writing.</p>	<p>Completed data sets and reports.</p>	<p>Report reviews.</p>	<p>Participating host homes supply necessary data.</p>
<p>Inputs: Room occupancy T+TEC billings. Host homes participation.</p>	<p>Participating host homes guest occupancy records. T+TEC bills.</p>	<p>Review of records and bills.</p>	<p>Participating host homes supply necessary data.</p>

ANNEX 3

PROJECT PROPOSAL

**Trinidad Host Home Association
Solar Water-Heating Proposal.****1. THE ORGANISATION**

Name: The Trinidad Host Home Association.

Principal Officers:

Harry Pirtheesingh - President
David Parasram - Vice-President
Lundsford Gibson - Treasurer
Gia Gaspard Taylor - Communications Officer
Suzanne Singh - Secretary

The organisation is a Non Governmental Organisation registered in Trinidad, W.I Established in 2003, This organisation was registered as a result of an invitation by UNDP and TDC to participate in a project to introduce the use of solar water-heating to the tourism industry in Trinidad.

2. PROJECT BACKGROUND

The purpose of this experimental pilot project is to introduce the use of an alternative and renewable energy as an environmental conservation measure. The key stakeholders who would be affected by this project are the bed and breakfast operators and/or host home owners in Trinidad. The key interest groups who can contribute to solving the problems this project addresses are:

- a. UNDP - provision of grant support for equipment pending approval of proposal and funding.
- b. Government - eg. concession on income tax as an incentive
- c. TDC - promotion of incentives for using green technology in the tourism industry
- d. BPTT - technical support and funding wherever possible.
- e. MEEI (Ministry of Energy and Energy Industries) – informing a renewable energy policy.

3. PROJECT OBJECTIVES

The objectives of the project are as follows:

- To reduce operating costs
- To reduce the use of fossil fuel in the production of electricity for water heating by promoting the use of solar energy systems
- To increase environmental conservation in the bed and breakfast industry
- To utilize the improved environmental conservation measures as a marketing tool
- To document the costs and benefits of installation and operation of solar water heating systems.

4. THE PROJECT LOCATION

The pilot project will be implemented in six (6) host homes throughout Trinidad. (See attached list of host homes).

5. THE PROJECT ACTIVITIES

The following activities will be necessary to achieve the objectives of the project:

- Technical workshop for organisation members (Completed)
- Conduct survey to assess water-heating needs of each property
- Identify a supplier
- Prepare a budget for purchasing, installation, monitoring etc.
- Develop a schedule for monitoring and evaluation.
- Purchasing and installation of water heating units
- Evaluation after one year and preparation of report
- Publicity activities: Media releases, site visits etc.

The following proposed support activities would be required:

- Site visits by suppliers and sponsors.
- Technical assistance as required.

This project supports community initiatives aimed at protecting the environment or promoting ecologically sustainable development through the reduction in the use of fossil fuel. It will also help the host homes to generate income and encourage networking in the tourism industry.

6. CONTEXT OF THE ACTIVITY

a. Relationship to local, district or national Government agencies or programmes:

- The draft national energy policy of T&T advocates the increased use of renewable energy.
- The Government of T&T is engaged in promoting activities for reducing the emission of Green House gases, (climate change conventions).

7. PROJECT SCHEDULE

a. Actual or proposed starting date....commence when funds are approved.

b. Proposed duration of the activity...18 months.

8. PROJECT PARTICIPANTS

a. The proposed organisations and individuals involved in the project are:

- The Trinidad Host Home Association
- TDC
- BPTT
- MEEI
- UNDP

- b. Involvement of unemployed persons:
- Majority of the Association members are self-employed.

9. ANTICIPATED PROJECT RESULTS (EXPECTED OUTPUTS)

- a. There will be an expected reduction of emissions associated with the use of fossil fuel or electricity generation.
- b. There are also expected impacts on participants/beneficiaries such as:
- Increased profitability through lower energy and maintenance costs.
 - Increased knowledge of cost/ benefit analysis and appropriate technology.
 - Increased awareness of the environment and the benefits of solar energy.

10. PROJECT MONITORING, EVALUATION AND REPORTING

- a. Persons who will participate in the monitoring/ evaluation of project:
- Members of the Association
 - MEEI
 - UNDP
 - TDC
 - BPTT and other sponsors
- b. List indicators to be used in the monitoring and evaluation of the project:
- A list of selected properties
 - A budget-itemized
 - A monitoring schedule
 - Invoices, receipt guarantees, contracts, photos of units on site for PR purpose
 - Monitoring personnel identified
 - Records of all publicity activities
- c. Proposed procedures (including possible use of outside personnel) for evaluating project results and/or communicating project experience to others:
- Invite sponsors to view progress
 - Prepare PR on the experience

11. ASSUMPTIONS AND RISKS

- a. The assumptions on which the successful outcome of the project is based:
- Full cooperation of Association members
 - Provision of grant funding through UNDP
 - Suitable weather
 - Ability to cut down expenses and maximize profit

It is assumed that all of the above will be realised.

b. Risks that may prevent or hamper the successful conclusion of the project:

- Inadequate funding
- Unsound equipment
- Lack of cooperation from participants
- Not enough technical support

c. Approaches and strategies to be used to avoid or minimize the risks:

- Sound budgeting
- Guarantees from suppliers
- Participatory approach used in identifying the pilot project participants.
- Signed contracts (enforceable) with participants

DETAILED TENTATIVE BUDGET FOR TRINIDAD SOLAR PROJECT:

Trinidad Host Home Association
Draft Budget – Solar Water Heating Project

	HOST HOME	LOCATION	NO. OF ROOMS	RECOMMENDED INSTALLATION	COST (TT\$)
1	Chateau Guillaume	Arima	4	2 x 190 litres	22,220
2	ML's Gingerbread House	Port of Spain	3	2 x 190 litres	22,220
3	Le Grande Almandier	Grand Riviere	6	4 x 190 litres	44,240
4	Leo's Place	Trincity	5	2 x 190 litres	22,220
5	Sand Dollar	Mayaro	8	4 x 190 litres	44,240
6	Second Spring	Blanchisseuse	5	3 x 190 litres	33,030
TOTAL			31	3,230 litres	188,170

The total cost reflects the following unit prices:

190 litres = 17 units @ \$9,810 per unit

For 17 units = TT\$166,770

Approx cost of installation = TT\$21,400

Total cost of solar heater units	166,770
Approx costs of transport, installation and materials	21,400

Equipment Total	188,170

B) Monitoring and Evaluation:	=	3,877
C) Project management (7% of donor funding)	=	13,443.29
Total Budget	=	<u>205,490.29</u>

ANNEX 4

Terms of Reference for Monitoring and Evaluation Committee to Oversee the Trinidad and Tobago Pilot Solar Water Heating Project

The Monitoring and Evaluation Committee will generally monitor the progress of the pilot project for the introduction of Solar Water Heating Systems in Trinidad and Tobago. This will require the conduct of site visits to recipient host homes and reporting on the outcomes of these visits. The Committee will submit progress reports on the project to the Ministry of Energy and Energy Industries (MEEI). The work of the Committee will include but not necessarily be limited to the following:

1. Establish baselines for monitoring and evaluation indicators. State the characteristics of the community and the project environment with specific reference to project objectives, as they exist prior to initiation of the project activities.
2. Prepare a list of indicators to be used in the monitoring and evaluation activities:
 - a list of selected properties
 - electricity billing
 - guest register of participating host homes
 - Operating budget for host home
 - a monitoring and evaluation schedule comprising:
 - i. record of activities to be conducted
 - ii. responsible parties and
 - iii. status of activity accomplishment
 - data collection instrument
 - Invoices, receipt guarantees, contracts, photographs of units on site
 - Monthly data records
 - Records of publicity activities eg. newspaper clipping
3. Ensure technical (capacity etc) compliance between suppliers' equipment, which have been installed, and the needs of individual host homes.
4. Ensure that solar water heating equipment meet internationally established standards with respect to the technical performance.
5. Ensure that Suppliers adhere to their implementation schedules as agreed with, and to the satisfaction of, the Monitoring and Evaluation Committee.
6. Ensure that suppliers meet their contractual obligations with respect to the guarantee period for the solar water heating equipment.

7. Establish procedures and follow-up activities for evaluating project results and/or communicating project experience to others

- site visits and data recording
- prepare newspaper articles on experience
- share lessons with local, regional and international bodies

Ministry of Energy and Energy Industries
October 5, 2005