



## **THE CARIBBEAN HOTEL ENERGY EFFICIENCY ACTION PROGRAM (CHENACT)**

**(RG-T1431)**

### **Terms of Reference Project Manager of the Technical Cooperation**

#### **I. Background**

- I.1 Due to a lack of natural availability of oil, one of the most costly resources for the Caribbean is fuel for transportation and power generation. Given the volatile price of fuel, the cost of electricity has skyrocketed in the last few years. The latter requires focus and vigilance as resources in the Caribbean are scarce and the majority of them have to be imported. As the energy matrix of the Caribbean is 90% fossil fuel, any energy savings is directly reflected in fuel savings and therefore represents an immediate reduction in carbon emissions. Thus, as the energy required to power hotels comes from thermoelectric plants, reduction in electricity use means a savings in terms of fuel consumption and thus results in a direct reduction in carbon emissions and an opportunity to benefit from the sale of carbon credits. That said, the transaction costs for validating and certifying these carbon credits can be prohibitively high since they are in small amounts in each hotel. If the possible carbon emission credits could be bundled into a single package, this would offset the transaction costs and would also allow for increased revenues as the price for larger contracts for carbon emissions reductions tend to receive higher margins than smaller ones.
- I.2 The importance and prominence of the tourism industry to the Caribbean economy is very substantial. According to the World Travel & Tourism Council (WTTC), it contributes more than US\$51 billion, accounts for 16% of total employment and has an expected growth rates of over 4% per annum. The tourism industry is a highly competitive industry – regionally and globally – and it is often the selected location of a large number of international events, and a highly chosen destination resort for millions of tourists every year. Approximately 30 percent of Barbados’ power consumption comes from the tourism sector, according to the Barbados Hotel and Tourism Association (BHTA), a member of CHTA and CAST. Therefore Barbados will serve as a representative case study to understand the impact of the use of energy efficiency (EE) measures and micro generation (MG) techniques program in the tourism sector in relation to the country’s power consumption.
- I.3 A recent survey performed among the CAST members of CHTA showed that a significant number of hotels would be willing to receive technical advice in

- relation to energy savings, energy audits, implementation of solar, wind and hydro generation as well as phase out of ozone depleting substances (ODS). According to CAST, some hotels may be willing to co-finance the costs of the energy audits. Further analysis of the results indicates that the hotel industry is willing to invest in EE as well as renewable micro generation. However due to lack of technical information and unavailability of affordable credit facilities especially for small and medium size hotels, there is a need for development assistance and investment in these areas.
- I.4 EE gains from implementation of typical conservation options (e.g. energy-saving light bulbs, solar water heaters, energy efficient air conditioning (AC), solar water pool pumps, solar cooling, recycle-reuse of waste for bioenergy, linen re-use programs, etc), can yield even higher gains through more strategic technology upgrades and design features.
  - I.5 Based on experiences, financed with resources from the Multilateral Investment Fund (MIF) of the IDB, in other parts of the region such as Cancun and Cabo San Lucas in Mexico Energy Service Companies (ESCOs) have been an effective means of promoting the adoption of EE. The majority of the hotels in the Caribbean will require technical assistance in EE as well as access to financial resources. However, there is a reduced number of ESCOs in the region and they usually do not offer a wide variety of services that go from consulting to financing, as it happens in other areas of the world. This TC proposes to assess the real capacity of Caribbean ESCOs to serve the tourism industry.
  - I.6 This operation will encourage the implementation of energy audits with the objective of reducing energy demand, introduction of energy efficient appliances and micro generation with renewable energies, and additionally explore possibilities of obtaining carbon credits from the latter.
  - I.7 The United Nations Framework Convention on Climate Change (UNFCCC) has recently approved a new mechanism, the Programmatic Clean Development Mechanism (PCDM), which will allow regional programs to be eligible for carbon finance. This TC would eventually prepare a project design document (PDD) for a PCDM in EE program in lighting, electrical appliances and micro generation, if a previous assessment over its potential and real possibilities of being successful is favorable.
  - I.8 One of the major expected outcomes of this TC in the medium and long term is to replicate the CHENACT's results at a larger scale. The Climate Investment Fund (CIF) and related initiatives managed by the IDB and the World Bank could be a source of funding for this larger initiative. These funds include concessional resources for programs that can contribute towards a low carbon economy.

**A. Participating Agencies**

- I.9 CHTA is an organization that represents 32 national hotel and tourism associations in the Caribbean, amounting for over 860 hotel members and over 122,000 hotel rooms. Over the past few years the members of CHTA have been operating under conditions of continued high-energy prices, significantly increasing their operational cost to between 15% and up to 30% of total cost.

Forecasts for continued volatility of oil prices maintain a level of operational uncertainty in this industry, as electricity costs in some cases have increased between 10-20% per year. Over the past 10 years, CHTA with a project office based in Barbados, in collaboration with its environmental division, the Caribbean Alliance for Sustainable Tourism (CAST), has been tasked with the mission of promoting energy conservation and environmental management strategies to their member hotels. It is therefore widely acknowledged that hotels can become more competitive through bottom-line gains by increased energy efficiencies. However those whose operations remain inefficient and uncompetitive will continually be at the mercy of fluctuating oil prices. However, only a few have incorporated the use of renewable/alternative energy sources or have implemented energy efficient measures.

- I.10 The Caribbean Tourism Organization (CTO), with headquarters in Barbados, and marketing operations in New York, London and Toronto, is the Caribbean's tourism development agency and comprises a membership of over 30 governments represented by their Ministries of Tourism and a myriad of private sector entities, including the Caribbean Hotel and Tourism Association. The CTO's mission is to provide to and through its members, the services and information needed for the development of sustainable tourism for the economic and social benefit of the Caribbean people. The organization provides, among others, specialized support and technical assistance to member countries in sustainable tourism development. CTO works in close collaboration with CHTA and CAST, and other regional and international organizations in the area of sustainable tourism development
- I.11 CHTA/CAST has approached the United Nations Environmental Programme (UNEP) to use the synergies of the Caribbean Hotel Energy Efficiency Action Program (CHENACT) so that its members would not only contribute to climate change mitigation by reducing carbon emissions, but also with the Montreal Protocol, in relation to the phasing out of ODS in air conditioning and refrigeration equipment.
- I.12 The Caribbean Renewable Energy Development Program (CREDP/GTZ) implemented by the German Technical Cooperation (GTZ) has completed a first phase of activity since 2003 in the Caribbean concentrating on the promotion of the use of renewable energy technologies. CAST and CREDP/GTZ have had prior discussions about EE programs in the Caribbean tourism industry. As of April 2008, CREDP/GTZ entered into a second project phase until March 2012 and has been mandated to offer assistance in EE matters, additional to the on-going activities for renewable energy. CHTA/CAST and CREDP/GTZ will enter into an agreement under CHENACT as the counterpart contribution for CHTA/CAST.
- I.13 Additional to the above contribution CREDP/GTZ will contribute, as a separate donor, funds to provide assistance in the EE sector mainly focused on the OECS region.
- I.14 The Center for Development Enterprise (CDE) based in Brussels, Belgium, is funding a 3-phase program in East Africa to provide best practice tools and advice

to 15 selected companies for the improvement of their energy management system. The program aims at introducing and implementing mature and sound energy management practices. The CDE is also working with CHTA in the Caribbean on an e-commerce platform for small and medium enterprise (SMEs) hotels in the Caribbean. The CDE will establish an agreement with CHTA/CAST for energy audits under CHENACT.

- I.15 The Bank has launched the Sustainable Energy and Climate Change Initiative (SECCI), of which, two of the main pillars are EE and carbon credits. Thus, this project is consistent with this initiative. In addition to funding this TC, SECCI is working in separate TC that will assess the potential for hotels, as Independent Power Producers (IPPs), to purchase/generate power from/to Caribbean Electric Utilities using renewable energies. The assessment includes regulatory framework analysis, electricity charges and tax incentives in each country and develop an indicative power purchase agreement (PPA), as IPPs, to formalize the selling of power to electric utilities.

## **II. Consultancy Objective**

- II.1 The objective of this operation is to develop the Caribbean Hotel Energy Efficiency Action Program (CHENACT), which will improve the competitiveness of small and medium hotels in the Caribbean region through improved use of energy. The purpose explore the possibilities of obtaining carbon credits through the Clean Development Mechanism (CDM), promote the compliance with the Montreal Protocol (phasing out of ozone depleting substances) and analyze the possibility to access concessional funds related to greenhouse gas emission reduction.
- II.2 In order to support CTO and CHTA/CAST with the execution of this TC, a project manager will be hired. These TORs describe the activities that the project manager will have to fulfill.

## **III. Specifications for the Consultancy services**

- 1 *Type:* The work will be carried out by an individual consultant. The contract is a *lump sum* payment to be awarded on technical merit. Payments shall be made as established in chapter V of this Terms of Reference.
- 2 *Starting date and duration:* The main activities to be carried out under this TORs are expected to be completed between January 2009 and July 2010.
- 3 *Place of work:* The work is to be done in Barbados and the Caribbean countries if necessary.
- 4 *Qualifications of consultant:* The candidate should have at minimum Bachelor's degree in Finance, Project Management, Environmental Economics or Energy. The candidate will have at least 4 years experience in project management or similar activities. The position requires additional knowledge in renewable energy and energy efficiency, environmental and social management, finance, and

accounting. Preferable with working experience in the English speaking Caribbean. Fluency in English is necessary.

#### **IV. Activities**

##### **A. Activities for the consultant**

IV.1 ***Activity 1 - Assist the Executing Agency (EA) and the Implementing Agency (IA) in the execution of this TC.*** The consultant will assist the EA and the IA in the execution of this TC in the following way:

- a. Prepare the *annual operating plan (AOP) of this TC*. These AOP will have to be approved by CTO as EA and CHTA/CAST as IA.
- b. Prepare and review terms of reference for individual consultants and consulting firms that will be hired under this TC.
- c. Following the Bank's policies of procurement, the consultant will advertise the consulting opportunities in order to obtain expression of interests for the consulting firms.
- d. Prepare a short list with the selected firms capable to perform the activities under this TC.
- e. Prepare the evaluation methods and final selection of the consulting firms.
- f. Update the procurement plan on a periodic basis.
- g. Review and prepare comments for all the reports/products prepared by the consulting firms and other consultants hired for this TC.
- h. Prepare *quarterly execution reports* for the Bank and the executing agency, specifying if the *plan of action* of b) is being fulfilled and if the Bank's disbursements are on schedule according to the *chronogram of execution* of the activities of this TC.
- i. Manage and prepare *financial statements* of the revolving fund as well as inform the bank about reposition of funds.
- j. Prepare *monthly personal performance reports* of the activities performed by the consultant. These reports will have to be approved by the MFIE in order to be able to receive the payment.
- k. The consultant will be the liaison between the EA, the IA and the Bank and the consulting firms, therefore the consultant will have to be permanently informed about the state of the execution of the TC, activities performed and products prepared by the consulting firms. The consultant will also have to assist in the logistics in relation to consulting firms.
- l. Assistance in the preparation of workshops, seminars and conferences prepared by the EA and the IA in general will be also part of the activities of the consultant.

**V. Reports and Payments**

- V.1 The consultant will prepare the following final reports:
- i. Annual operating plan for the execution of this TC.
  - ii. TORs for consulting firms and individual consultants as required.
  - iii. Quarterly execution reports (including financial statements of the revolving fund).
  - iv. Monthly personal performance reports.
  - v. Final report of the execution of the TC.
- V.2 Payments for the consulting services will be specified in the Contract, using the concept of *lump sum*, and will be made as follows:
- i. 5% at contract signature and approval of the AOP for the execution of this TC, Plan of action and chronogram of execution.
  - ii. 90% (divided into 12 payments of 5% each) at approval of the monthly personal performance report (12 reports in total) and approval the Quarterly execution report (every three months, 4 reports in total).
  - iii. 5% upon approval of the Final report of the execution of the TC.

**VI. Coordination**

- VI.1 The Barbados Country Office, the EA and the IA will share the technical responsibility of the TC in coordination with the Energy Division of the Bank, as well as the approval of the products prepared by the consulting firms. In representation of the Bank, the technical coordination for this consultancy rests with Mr. Christiaan Gischler, Energy Specialist of the Energy Division of the Inter-American Development Bank [phone: (202) 623-3411; fax (202) 623-2064; e-mail: [christiaang@iadb.org](mailto:christiaang@iadb.org)].