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Energy Conservation in the Trinidad Tourist Industry Training Program

Florida Solar Energy Center

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Final Report

Energy Conservation in the Trinidad Tourist Industry Training Program

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Submitted to:

Ministry of Tourism
Trinidad and Tobago
Clarence House
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Port of Spain
Trinidad, West Indies

Submitted by:

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Final Report
Energy Conservation in the Trinidad Tourist Industry
Training Program
Florida Solar Energy Center

1. Introduction

This Final Report summarizes the work performed by the Florida Solar Energy Center/University of Central Florida on the contract entitled “Energy Conservation in the Trinidad Tourist Industry Training Program”. This program was performed for the Ministry of Tourism, Trinidad and Tobago, WI. (MoTTT) for the period September 1 to November 1, 2008. The MoTTT established a program for the tourist industry to facilitate learning about energy conservation and renewable energy technologies appropriate for resort applications. The Florida Solar Energy Center provided assistance through consulting and in education about sustainable energy technologies.

2. FSEC Background

The Florida Solar Energy Center was created to research, test and evaluate solar energy technologies and to educate the people of Florida on those technologies. As a research institute of the University of Central Florida (UCF), the Florida Solar Energy Center (FSEC) provides technology transfer of various renewable energy technologies. FSEC has over 25 years of renewable experience in solar thermal, photovoltaic and building science technologies, and has been recognized internationally. FSEC and UCF form a team that offers technology transfer in energy conservation and renewable energy technologies to a broad range of individuals, educational entities, government agencies and industries, both domestic and international.

3. Program Description

The Florida Solar Energy Center provided technical consulting and training to the Ministry of Tourism on the implementation of energy conservation and renewable energy technologies into the resort industry on the island of Trinidad. FSEC modified existing energy training courses to provide the education needed for the resorts to understand the concept, design and operation of conservation and renewable energy systems. FSEC has long established training programs that provided materials for this workshop in energy efficiency, conservation, green buildings, alternative fuels, and solar energy. In the late 1990's, FSEC conducted several workshops for the Caribbean Hotel Association in Solar Energy Technologies. A recently developed training program on Eco-Tourism has been added to FSEC resources. Materials from these educational programs were organized into a sustainable energy workshop for Trinidad Celebration of World Tourism Day.

This program consisted of three tasks: 1) design training materials, 2) conduct workshop and 3) report results. An FSEC staff member traveled to Trinidad to conduct a

sustainable energy workshop in conjunction with Trinidad celebration activities for the World Tourism Day to be held on September 27th 2008. Workshop participants were provided with the workshop PowerPoint presentation, educational materials and certificates of completion.

Topics covered in the workshop were:

- Energy Efficiency First
- What are Renewable Energy Resources
- Green Building Programs
- Best Practices for Energy Conservation
- Impact of Climate Change

Materials distributed to attendees were:

- Workshop Agenda
- Complete PowerPoint Presentation
- ESF PV chart
- Emergency Energy Plan Guide
- PV Area Sizing Examples List
- PV Sizing Stand-alone Worksheet
- List of Solar Industry
- List of Recourses
- PV Disaster Kit Description
- Caribbean Solar Insolation Map

4. Results

Bill Young, Senior Research Engineer (FSEC), worked with Gloria Joseph, administrator with the Ministry of Tourism, on logistics, coordination and delivered a 1-day workshop and with other activities the second day. Attendees included members of the Ministry of Tourism, members of the Trinidad and Tobago Tourist Industry, the general public and the media.

Educational materials were provided in an electronic (CD) format in advance of the workshop and printed by the MoTTT to reduce shipping costs. This allowed MoTTT staff to review materials before the presentation. FSEC printed and provided two FSEC printed workshop manuals that were presented to MoTTT following the workshop.

The workshop was scheduled to start on September 22nd, with eighty registered attendees, but was delayed until September 23rd due to instructor travel problems with American Airlines. On Tuesday, sixty-four attendees completed the workshop. Attendance extended beyond the tourist industry, as the event was advertized in the local island newspapers. Bill Young, participated in a newspaper interview with the local newspaper that ran the ad. All attendees were presented a Certificate of Completion from FSEC. Following the workshop, private meetings was held with two attendees who requested technical support for their tourist facility projects.



Figure 1. Workshop attendees and instructor.

5. Evaluation by Attendees

Evaluation Forms were created by both FSEC and MoTTTA. Forty-nine attendees completed the MoTTT evaluation forms, as the FSEC forms were not distributed. The responses summarized by MoTTT were very positive for the eleven questions, with an average of fifty percent of attendees responding with an excellent rating on a majority of the questions. There were no below average responses. Participants expressed a need to ‘go green’ and to improve their domestic environments and working conditions through energy conservation and application of renewable energy. Comments were made that energy conservation is becoming a household and industry activity in Trinidad. Eighty-nine percent of respondents indicated that the material was relevant to their jobs and that they planned to use the information.

6. Conclusion

The workshop was the highlight of the week long activities organized by the Ministry of Tourism Trinidad to celebrate International World Tourism Day. Other activities that week included tours of Eco-resorts, planting of trees, award ceremonies, and media forums. The Minister was pleased with the workshop and media coverage to encourage conservation and use of renewables by the tourist industry on the island. The Sustainable Energy Workshop was held in a very well appointed facility and was well attended and received by attendees as participants were actively engaged, asking many questions.

Patrick Robinson, an FSEC staff member originally from Trinidad, was considered for participation in the program, but due to cost constraints, his involvement was not funded. Workshop evaluations indicated that more local island knowledge would have been beneficial to attendees. A more elaborate research of local culture and tourist industry will need to be completed before future workshops.

To maintain a more FSEC look and format of educational materials, advance coordination on printing, including samples, should be provided during the planning phase. Printing and shipping of massive amounts of workshop materials to the site is a problem.

The project was successful, in spite of minor problems. Travel to distance locations may need early arrival to guarantee smooth events. .



***The Ministry of Tourism and
Caribbean Alliance for Sustainable Tourism
Presents
Energy Conservation Workshop***

Date: Monday, 22nd September 2008

Time: 9:00 a.m. to 3:30 p.m.

Location: Hyatt Regency Trinidad, #1 Wrightson Road, Port of Spain

Programme:

9:00am

- 30 mins

- National Anthem
- Welcome by Permanent Secretary
- Address by Representative from the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC)
- Poem relating to Climate Change – 3 mins
- Feature Address by Minister of Tourism
- Introduction to Energy Conservation – Mr. Young

9:30 am Photo Opportunities

Agenda:

9:40	Energy Efficiency First	50 mins
10:30	What are Renewable Energy Resources	30 mins
11:00	Break	15 mins
11:15	Green Building Programs	75 mins
12:30	Lunch	60 mins
1:30 PM	Best Practices for Energy Conservation	60 mins
2:30	Impact of Climate Change	45 mins
3:15	Eco-Tourism	15 mins
3:30	Closing Remarks and questions	15 mins

Presenter:

Bill Young, Senior Research Engineer, Florida Solar Energy Center,
With 25 years of experience in renewable energy and disaster relief .

