Organization of American States

LOW CARBON COMMUNITIES IN THE CARIBBEAN (LCCC)
REGIONAL ENERGY AUDITING WORKSHOP
Information Bulletin

MEETING INFORMATION

Date: Tuesday, August 24th through Friday, August 27th, 2010

Time: 8:00 a.m. – 5:00 p.m.

Location: Conference Room
Coco Palm Resort
Rodney Bay, Saint Lucia

Registration fee: US$ 220

BACKGROUND INFORMATION

The Regional Energy Auditing Workshop is being organized and financed by the Organization of American States through its Department of Sustainable Development (OAS/DSD) in partnership with U.S. Department of Energy's National Renewable Energy Laboratory (NREL) in-kind technical assistance and logistics support by the Caribbean Association of Electric Utilities (CARILEC).

This training session under the Low-Carbon Communities in the Caribbean (LCCC) initiative is a regional collaboration between the US Department of Energy and OAS' Caribbean Sustainable Energy Program (CSEP) funded by the EU-ACP 1st Energy Facility[1] geared specifically to support the development and use of renewable energy and energy efficiency alternatives in seven small island states of the Caribbean.

OBJECTIVE

The four modules of eight-hour time is a condensed, and fast-paced instructional program, designed to provide fundamental knowledge and understanding required to conduct effective energy audits in buildings. After successful completion of the workshop a certificate of training issued by NREL will be granted. This seminar is targeted to be a preparatory course for government officials to strengthen their capacity and support in-country efforts to carry out energy audits and recommend efficiency measures

[1] Created under the European Union Energy Initiative for Poverty Eradication and Sustainable Development (EUEI). For more information visit: http://ec.europa.eu/europeaid/where/acp/regional-cooperation/energy/index_en.htm

for public buildings. As well, the seminar is also extended to other participants seeking a career in energy auditing or wanting to become certified energy auditors.

The workshop explores all major aspects of energy use, energy systems and technologies, energy conservation measures, energy auditing methodology and hands-on assessments in residential or commercial buildings and energy analysis calculations using the eQUEST energy modeling tool.

PROGRAM

	8:00 AM – 12:00 PM Training & Instruction	12:00 PM – 1:00 PM	1:00 PM – 5:00 PM Assessments & Calculations
Day 1	**Introduction** Purpose of the training, Overview of the week *(30 min)* Energy Awareness *(15 min)* Energy Usage Data *(20 min)* *Break (10 min)* Safety *(20 min)* Metering *(30 min)* Fleet *(15 min)* *Break (10 min)* Operations and Maintenance *(20 min)* **Low Bay Lighting** *(1 hr)*	Lunch	**High Bay Lighting** (1 hr) *Break (10 min)* **Hands-On Lighting System Assessments** (1 hr) **SERF and S&TF Daylighting System Tour** (45 min) *Break (10 min)* **Hands-On Energy Savings and Economics Analysis** (1 hr) **Review and Adjournment**
Day 2	**Renewable Energy** Photovoltaics (1 hr) Solar Water Heating (30 min) *Break (10 min)* Solar Ventilation Preheat (5 min) Wind Energy (1 min) *Break (10 min)* Ground Source Heat Pumps (20 min) Biomass Heating and CHP (30 min) Ocean Energy (5 min)	Lunch	**Water Conservation (30 min)** **Plug Loads (30 min)** *Break (10 min)* **Hands-On Rooftop Solar Analysis** (30 min) **S&TF Solar PV Tour** (15 min) **SERF Solar Ventilation Preheat Tour** (15 min) **Renewable Fuels Heating Plant Tour** (20 min) **Hands-On Energy Savings and Economics Analysis** (1.5 hr) **Review and Adjournment**
Day 3	**HVAC** Human Physiology (10 min) HVAC Systems (20 min) Cooling Systems (20 min) Control Systems (20 min) *Break (10 min)* HVAC System ECMs (20 min) Heating System ECMs (20 min) Domestic Hot Water ECMs (15 min) *Break (10 min)* Cooling System ECMs (30 min) Control System ECMs (30 min) Motors (15 min)	Lunch	Retro-Commissioning Intro (1 hr) Retro-Commissioning ECMs (1 hr) **High Performance Buildings Research** (30 min) **Hands-On Walkthroughs** *Break (10 minutes)* **Hands-On Data Input** **Review and Adjournment**

Day 4	**Building Envelope** (30 min) **eQUEST Energy Modeling** Wizard Mode Q/A (30 min) *Break (10 mins)* Building Envelope (20 min) Lighting Systems (20 min) Plug Loads (20 min) *Break (10 mins)* Packaged HVAC Systems (20 min) Central Cooling Plants (30 min) Central Heating Plants (30 min)	**Lunch**	**Hands-On Walkthroughs (45 min)** *Break (10 mins)* **Hands-On Data Input Q/A (1-3 hr)** **Review and Adjournment** **Generating the Report** Report Template & Guidance *Break* Report Writing and Q&A *Break* Report Writing and Q&A Financing Options Measurement & Verification

Instructors:
Otto Van Geet, PE, LEED, AP, Senior Engineer, NREL
Jesse Dean, CEM, Engineer, Integrated Applications Office, NREL

EXPECTED FOLLOW UP

1. Seven national training workshops, under leadership of trained attendees in each of the CSEP countries by December 2010
2. At least 21 energy audits in selected buildings conducted in the CSEP countries by December 2010

These national activities will be facilitated in coordination with the Ministry responsible for Energy and the CSEP Regional Coordination Unit (CSEP-RCU).

REQUIREMENTS

It is highly recommended to bring a laptop with Microsoft Excel and Word, and eQUEST version 3.63b installed

- A calculator
- A notebook and pencil/pen (a highlighter if you choose)
- There is no formal dress code

Software Tool:
The QUick Energy Simulation Tool version 3.63b, can be downloaded at http://www.doe2.com/equest/

LOGISTICS INFORMATION

Airport: George F.L. Charles Airport (SLU)

Hotel: Coco Palm Resort
Rodney Bay
Saint Lucia

(758) 456-2800
www.coco-resorts.com

CONTACT INFORMATION

Should you have any inquiries regarding these arrangements, please contact:

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