



Organization of
American States



Energy and Climate
Partnership of the Americas



Sustainable Energy
Capacity Building Initiative
Caribbean Region

SECBI Stakeholder Consultation in Belize

Belmopan and Belize City

June 30 through July 3, 2015

Background

In 2012 the Ministry of Energy, Science and Technology and Public Utilities (MESTPU) developed its strategic plan for 2012-2017. The Ministry's strategy identifies key barriers and recommendations for the development of the nation's energy sector. Strategic element #1 under the MESTPU strategy aims at improving energy efficiency and conservation by at least 30 percent by 2033. In this regard the MESTPU has integrated the Energy for Sustainable Development in Caribbean Buildings (ESD) Project through the Caribbean Community and Climate Change Centre which is a regional effort geared at piloting energy efficiency improvements in CARICOM member states.

In December 2014, the Ministry of Energy, Science & Technology and Public Utilities, in association with the Caribbean Community Climate Change Centre (CCCCC) and the Inter-American Development Bank (IDB) submitted a project proposal *Towards the Intensification of Energy Efficiency Efforts in Government, Businesses and Households in Belize*, in response to the Call for Expression of Interest issued on November 5, 2014 under the Sustainable Energy Capacity Building Initiative (SECBI) implemented by the Department of Sustainable Development.

The proposal submitted to the OAS/SECBI will complement the regional project *Energy for Sustainable Development in Caribbean Buildings (ESD)*, as it will create an opportunity to pool a greater mass of capabilities to deliver on the ambitious goals and targets set out in the national sustainable energy strategy action plan.

The OAS/SECBI approved funding for the proposal, which will be complemented by the U.S. Department of Energy (DOE) Clean Energy Solution Center (DOE/CESC) and the ECPA Fellow program.

The project will contribute to Belize's sustainable development goals by accelerating an enabling environment for investments in, and utilization of, energy efficient and renewable energy measures, policies and regulations that will improve the adoption and integration of energy efficient technologies into Belize's energy sector. Initially, the project will focus its attention on developing energy efficiency.

The Government of Belize has identified four strategic outcomes as outlines below:

Outcome 1: An enabling legal and institutional framework for utilities, energy service companies (ESCOs) and end-users in Belize has been developed and is reinforcing the transformation of the energy sector.

Executing Agency: The Minister of Energy (MESTPU), PUC, and Belize Electricity Limited

Outcome 2: Investment in Sustainable Energy is being guided by financial mechanisms developed via the project.

Executing Agency: Mr. Dave Williams (ECPA Senior Fellow)

Outcome 3: End-Users are making more informed decisions based about energy efficient (EE) equipment and the competency of potential service providers.

Executing Agency: McGeown Associates (OAS consultants) and CLASP

Outcome 4: Minimum Energy Performance Standards (MEPS) for Equipment and Buildings have been developed and is under consideration by parliament.

Executing Agency: McGeown Associates (OAS consultants) and CLASP

Purpose of the Visit

- To introduce the technical assistance provided by OAS/SECBI via the project *Towards the Intensification of Energy Efficiency Efforts in Government, Businesses and Households in Belize;*
- To have discussions with MESTPU to define the scope of work and expectations for the project;
- To have individual consultations with relevant stakeholders to foster knowledge exchange to identify synergies.

Main Visit Activities

As part of a regional effort to improve energy efficiency in CARICOM member states, the Ministry of Energy, Science & Technology and Public Utilities (MESTPU) in Belize has partnered with the Organization of American States (OAS), through its Department of Sustainable Development (DSD), and in cooperation with its OAS Belize Office, to launch the “Standards and Labeling” component of the Energy for Sustainable Development in Caribbean Buildings Project (ESD), during the period of June 30, to July 2, 2015.

The three (3) day event, held in Belmopan and Belize City, provided the opportunity for expert consultants (from McGeown Associates and CLASP), along with Ms. Carolina Peña, Energy Officer in the Sustainable Energy Section within the OAS/DSD, to consult directly with stakeholders in Belize (see Annex1 below), qualify conceptual recommendations, elaborate best practices and provide advice on improving equipment standards, in order to enhance energy efficiency efforts by the Government, businesses and households in Belize.

The launching brought into focus the OAS/SECBI project for Belize entitled “Towards the Intensification of Energy Efficiency efforts in Government, Businesses and Households in Belize”. The aim of the project is for the implementation of minimum energy performance standards and labeling for lighting, cooling, refrigeration equipment as well as electrical motors. When implemented, it is anticipated that the project will contribute to Belize’s sustainable development by creating a fertile environment for investments, and increasing the utilization of efficient and renewable energy equipment. The overall objective of the project will serve as a platform to reduce energy consumption as well as a significant decrease in greenhouse gas emissions.

Among the significant takeaways from the visit is the desire of using the project as a “proof of concept” with the intent to replicating the efforts in the region working towards a modernized energy sector. The MESTPU has already advanced concepts that will improve Belize’s energy footprint and lead the way for others in the region. In this connection, the financial and technical support of the Organization of American States (OAS), through its Department of Sustainable Development (DSD), will be pivotal to align many individual program elements into a comprehensive model that can be adapted to serve each constituent. Belize’s plans have the elements that can fulfill that need.

Results and Next Steps

- All agencies attending the consultation and the individual meetings expressed their willingness and commitment to work closer in their programming and outreach efforts.

Specific areas per agency are listed below:

- **Bureau of Standards and Department of Environment**

- The Bureau of Standards currently serves two relevant roles for the implementation of a standards and labeling (S&L) program:
 - it is responsible for the development of standards
 - also serves as the consumer protection agency
- As part of the standards development, the Bureau has a standards setting process in place which can be replicated for the development of energy efficiency standards for appliances and equipment. Some of these steps include:
 1. Setting a public + private technical committee
 2. Developing a TOR for each technical committee
 3. Developing a standard (up to 24 months)
 4. Conducting a standards advisory consult at the Ministry level (if the standard is mandatory)
 5. Conducting a public consultation process and submit request to WTO (for 60 days)
 6. Defining final minimum energy performance standard
 7. Declaring standard as compulsory

- The introduction of MEPS for the four products under consideration would undergo this development process. The project team should work in close collaboration with the Bureau to assist throughout the process.
 - In addition to the standards setting process, a justification document or a regulatory impact assessment is normally developed to support the definition of a MEPS. This is not a requirement by law (under the current regulatory framework in Belize) but it is considered a best practice. The Ministry of Energy, Science & Technology and Public Utilities would be the agency defining relevant criteria for consideration under the justification document for a MEPS proposal. These criteria could include energy savings for consumers in Belize and the nation, CO2 emissions reduction, and/or cost of ownership.
 - In proposing compliance and regulatory processes, it would be value to identify and make revenue generation mechanisms that enable the Bureau of Standards to be financially self-sufficient.
 - Mexico, through the Comisión Nacional para el Uso Eficiente de la Energía (CONUEE), has already developed energy efficiency standards for the products under consideration and is regarded as the regional benchmark. Some products are also imported from Mexico (i.e., refrigerators) thus an effort to align with Mexican standards would be beneficial for Belize. Given that testing infrastructure for conformity assessment is not available in Belize, the establishment of Mutual Recognition Agreements (MRAs) with other certification bodies and testing facilities in the region would be a solution for ensuring compliance with the standards. Some of those potential agreements are listed below:
 - An MRA between Mexico and Belize’s certification bodies
 - An MRA with Costa Rica’s facility which is accredited for lighting certification
 - A Third Party recognition with the IAAC
 - The standards preparation requires an understanding of the current market. There is a market assessment available for lighting products developed by UNEP. Market assessments for the other products have not been developed yet.
 - Follow-up with UNEP under their en.lighten initiative for market assessment on lighting
 - Belize experience can be a benchmark for regional standards for CROSQ and COPANT. CLASP will follow up with Mexico.
- **Customs and Excise / Importers and Large Retailers**
- Customs has already some controls in place to ensure that refrigeration equipment entering the country complies with licenses issued by

relevant Ministries. This same mechanism could be used in case of energy efficiency requirements implemented by MESTPU. Customs also manages a database to track equipment entering the country. This database could be an excellent resource for MESTPU in order to develop initial market assessment for products of interest.

- Equipment using energy is also subject of import duties (37%). A more comprehensive review of the current duties would provide useful information on fiscal incentives for the introduction of more efficient equipment in Belize.
- Review mechanisms for the importation of second hand equipment to prevent MEPS bypass.
- Belize tourism is known as boutique hotels, thus energy efficiency is an approach that might be suitable to enhance a 'Green label' hotel.
- The VIenergize Services Network was presented and was endorsed as a good practice for Belize
- **Belize Electricity Limited**
 - Vertically disintegrated up to an 80% except for fossil fuel generation
 - Private company whose main shareholder is the government
 - BEL is already making investments to help customers reduce energy consumption
 - Some BEL staff have been trained to perform energy audits
 - Net-billing legislation is being drafted
 - BEL has developed a concept similar to VIenergize Services and intends to launch in the near future.
 - Services will be constrained by regulations. PUC not allowing for BEL to offer non T&D/generation service
 - Smart metering is not in the current plans
 - Most low income residential consumption is tiny compared to others. Improving quality of life will increase consumption.
 - BEL's claims that Belize's customers Energy Intensity is too high in comparison to other Caribbean market
- **Association of Professional Architects of Belize and Association of Professional Engineers of Belize**
 - Both associations are interested to receive guidelines on energy efficient equipment to minimize the buildings' energy consumption, and specially on building costs, since this is an important driver for their clients.
 - 2/3 of greatest potential on energy efficiency is in commercial and industrial buildings, thus it is pivotal to set standards and labeling schemes for equipment of those buildings.
 - A great efficiency problem in Belize is the tendency to do NO maintenance and run equipment to failure. Common practice is to use multiple 1-2 ton units and replace them when they fail, Belize usually does not have spare parts,

- Providing 3 phase power to large buildings would save a lot of energy. Too often only single phase 220V is available.
- There was interest in the development of a building energy labeling mechanism, in the first instance, as a branding attribute for Accomodations in tourism.
- The capacity exists locally to evaluate building performance for green labels
- **University of Belize and Institute of Technical, Vocational Education and Training (ITVET)**
 - Carbon War Room will conduct an energy audit in Karl Heusner Memorial Hospital in Mid-July. It was recommended that representatives from University of Belize and the Institute of Technical, Vocational Education and Training (ITVET) can join the CWR consultants. Thus, these education agencies can serve as a train-the-trainer.
 - The technical exchange between the USVI University and the Building Performance Institute was a good practice for transfer of knowledge with students which can be explored in Belize.
- **Ministry of Energy, Science & Technology and Public Utilities**
 - The Ministry will play a major role in the definition of MEPS for products of interest. As mentioned earlier, the Ministry would define criteria for the justification of the introduction of MEPS for appliances and equipment at the early stages. The Ministry should also define roles for compliance purposes. As of now, there isn't a monitoring, verification and enforcement framework in place that will ensure products placed on the market comply with the MEPS, and those non-compliant receive penalties or an appropriate enforcement action. Trade licenses and provisions to remove those licenses are enforced by the local government, but a compliance regime should be established at the state level in order to be effective.
 - The MESTPU showed interest in coordinating with regional efforts that are currently developing MEPS for the same appliances and equipment to avoid duplication of efforts and also to take advantage of infrastructure and technical capacity already built in neighbor economies. Some of those initiatives and required coordination efforts are listed below:
 - Central American Integration System (SICA), which is a voluntary mechanism and Belize is a member
 - Secretaría de Integración Económica Centroamericana (SIECA) which is a mandatory mechanism for labels, however Belize is in the negotiation stages to join

- Mesoamerican Integration and Development Project, working through the Mesoamerican Program of Rational and Efficient Use of Energy
- Follow-up by MESTPU and OAS/DSD.
- Follow-up with CROSQ representatives to synchronize the Belize experience to the regional scheme. Follow-up by MESTPU and OAS/DSD.
- The MESTPU has selected the Association of Energy Engineers to host train the trainer sessions for their Certified Energy Manager (CEM), Certified Energy Auditor (CEA), and Certified Business Energy Professional (BEP). The OAS/SECBI consultants will assist the MESTPU as necessary.



Annex 1 – Agenda

Date	Time Slot	Organization	Venue
Tuesday 30 th June	2:00 – 4:00 pm	<ul style="list-style-type: none"> Bureau of Standards Department of Environment 	<ul style="list-style-type: none"> George Price Centre, Belmopan
Wednesday 1 st July	9:00 – 11:00 am	<ul style="list-style-type: none"> Customs and Excise Importers & Large Retailers 	<ul style="list-style-type: none"> Institute of Technical, Vocational Education and Training, Belize City
	1:00 - 3:00 pm	<ul style="list-style-type: none"> Public Utilities Commission Central Building Authority Belize Electricity Limited Chamber of Commerce 	
	3:30 – 5:00 pm	<ul style="list-style-type: none"> Association of Professional Architects of Belize Association of Professional Engineers of Belize 	
Thursday 2 nd July	9:00 – 11:00 am	<ul style="list-style-type: none"> University of Belize Institute of Technical, Vocational Education and Training 	<ul style="list-style-type: none"> Institute of Technical, Vocational Education and Training, Belize City
	1:00 pm- onwards	<ul style="list-style-type: none"> Ministry of Energy, Science & Technology and Public Utilities 	<ul style="list-style-type: none"> Hotel Lobby, Belize City