



Experience Exchange on Standardization for Energy Efficiency of Appliances in the Caribbean (Follow-up to ECELP)

Coco Palm Hotel, Rodney Bay, Saint Lucia
March 16-17, 2015

The CARICOM Regional Organisation for Standards and Quality (CROSQ), the Organization of American States through its ECPA Energy Efficiency Working Group, the German Institute of Metrology (PTB) implementation agency of the regional project “OAS-COPANT-IAAC-SIM-PTB Quality Infrastructure for Energy Efficiency and Renewable Energy Sources in Latin America and the Caribbean”, the CARICOM Secretariat’s Energy Programme, in close collaboration with the OECS Commission and the Renewable Energy Energy Efficiency Technical Assistance (REETA/GIZ) convened a regional workshop " Experience Exchange on Standardization for Energy Efficiency of Appliances” in the Caribbean from March 16-17, 2015 in Rodney Bay, Saint Lucia.

The workshop aimed to share information with representatives of the National Standard Organizations (NSO) from Antigua and Barbuda, Belize, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago to advance on the standardization of energy efficiency standards and labels in the region. (Annex 1 – Concept)

Specific objectives of the Workshop:

1. To discuss effective approaches for labeling, energy efficiency standards and relations to retailers.
2. To facilitate identification and evaluation of opportunities for use of internationally available standards, for harmonization, and other avenues to mutual recognition of test results, test protocols and test procedures among participating territories.
3. To promote the decision making process on regional priorities, to discuss effective approaches for labeling, energy efficiency Standards and relations to retailers.



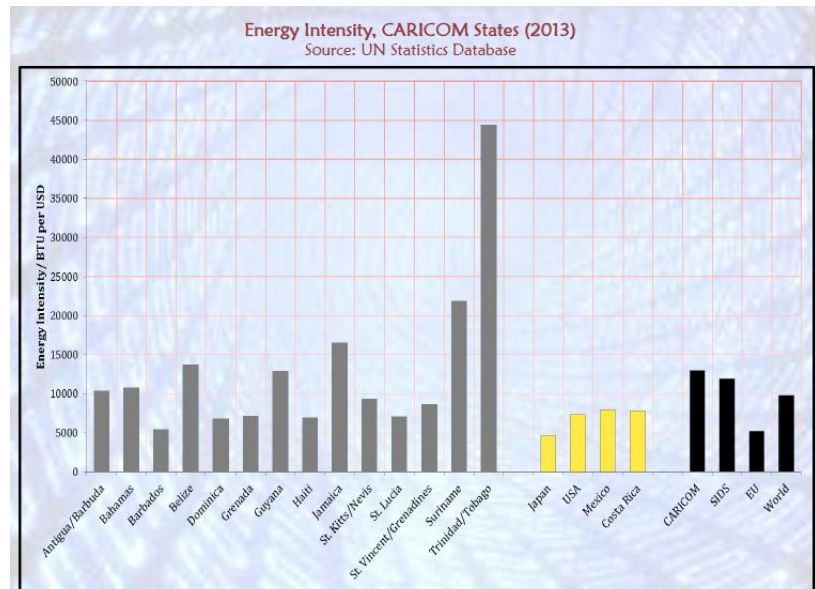
Summary:

The workshop convened 18 participants (Annex 2 – List of Participants) involved in the development of energy efficiency labels and labeling standards for energy efficient household appliances in the Caribbean. These included representatives from the National Standard Organizations (NSO), CARICOM Regional Organization for Standards and Quality (CROSQ), CARICOM Secretariat (via Skype), OECS Secretariat, REETA/GIZ, OAS, as well as independent consultants involved in the execution of Eastern Caribbean Energy Labelling Programme (ECELP). The day started with opening remarks from Mr. Ezra Ledger, Director St. Vincent & the Grenadines Bureau of Standards & Immediate past chair CROSQ Council.



Following the opening, Dr. Devon Gardner, Programme Manager, Energy at CARICOM Secretariat provided an overview of the Energy standards and labelling for appliances and equipment within the regional policy and strategy.

There are many opportunities to reduce the energy intensity in the Small Island Development States (SIDS), especially in the Caribbean through the use of renewable energy. CARICOM countries are ranked within the highest place in comparison with the world; Barbados is a good example on how to use efficiently the energy.



Dr. Gardner, reported that CARICOM convened the 54th Special Meeting of the Council for Trade and Economic Development (COTED) for Energy from 27 February to 1 March, 2015, and the following are the outcomes of the Meeting:

(1) “Agreed that the Regional Building Code being developed by the CARICOM Regional Organization for Standards and Quality (CROS-Q) should explicitly address energy efficiency in new and existing buildings”

(2) “Mandated the CROS-Q to develop a regional energy efficiency labelling standard for electrical appliances and luminaries used in residential and small business sectors”

Dr. Gardner also expressed that among the priority areas in CARICOM energy policy on standards are:

1. Air conditioning and refrigerators (cooling)
2. Lightening
3. Washing machine
4. TV / computers

In the session, *Current situation in standardization of energy efficiency standards and labels for domestic electrical appliances*, Eng. Rafael Nava (MABE, Mexico) provided an overview of the international status, including examples from North America (USA, Canada, and Mexico), Asia, Australia and Europe.

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Eng. Nava mentioned that the Pan American Standards Commission (COPANT) is working on:

- (i) the TC 152 for: air conditioners; fans; lamps (LED); motors; refrigerators; washing machines; water Heaters (solar, gas); building insulation; TV stand by;
- (ii) Projects for: Photovoltaic; Eolic; electric ranges; microwaves; irons; hair dryers.



The active countries are Argentina, Bolivia, Brazil, Colombia, Ecuador, Honduras, Mexico, and Paraguay. There is a need to strengthening the Caribbean participation within the COPANT’technical committee meetings, specifically those relates to EE standards.



Mr. Fulgence St Prix provided an overview of the regional experience, including Barbados, Jamaica, OECS, St Lucia and CROSQ. Mr. St Prix mentioned that Jamaica was the first Caribbean country to develop energy efficiency standards including appliances (dish washers, fans), which was based on COPANT standards.

As mandated by COTED, Mr. St Prix expressed the commitment of CROS-Q and these are the proposed

development areas:

1. Self-ballasted compact fluorescent lamps for general lighting services- performance requirements
2. Energy efficiency: refrigerators, freezers and combined household appliances - specification and labelling
3. Self-ballasted LED lamps for general lighting services- performance requirements
4. Energy efficiency air conditioners - Specification and labelling
5. Energy efficiency labelling of appliances and household products- requirements
6. Energy Efficiency building code

Recommended Action Items:

General

1. Standards have to be applied based on culture and weather conditions.
2. Ensure consistency between national and regional targets and implementation strategy.
3. In small countries, such as OECS, the markets are too small to introduce independent national energy efficiency standards and labelling systems, especially those that may require testing for compliance with their respective national standard.



4. CARICOM has a very rigid process through which Regional standards are developed, for this purpose, CARICOM Secretariat and CROS-Q will lead a coordination mechanism.

Specific

1. Mexico has the 3rd largest exporter of refrigerators; there is a possibility to have an agreement between Caribbean and Mexico for testing refrigerators.
2. Most of the CARICOM Member States have labelling standards for electrical appliances, which does not include energy efficiency labeling, and which might need revision, and the revision can include labeling for energy efficiency..
3. Trinidad and Tobago to submit New Item work proposal for the development of a regional standard for labeling of electrical appliances including energy efficiency labeling.
4. Circulate a list of the various standards within the scope of the TC 152, so the NSO can express to participate in those of their interest (see Annex 3 below)
5. Coordinate with the Caribbean Community Climate Change Centre (5C's), which is the executing agency for the Global Environment Fund co-financed project entitled *Energy for Sustainable Development in Caribbean Buildings (ESD-Caraibes)*. The Beneficiary countries are Antigua and Barbuda, Belize, Grenada, St. Lucia and St. Vincent & the Grenadines.
6. Coordinate with REETA/GIZ project on the technical assistance in developing a (i) regional building code and energy performance standard for the Caribbean and (ii) regional energy performance standard for the Caribbean.
7. Coordinate with OAS/SECBI (Sustainable Energy Capacity Building Initiative) to deliver the technical assistance under the Project *Towards the Intensification of Energy Efficiency Efforts in Government, Businesses and Households in Belize*, among the relevant areas regarding standards and labeling are: (i) Prepare labelling standards for energy efficient equipment, (ii) Adapt minimum energy performance standards for lighting, cooling, refrigeration and motors and develop a plan for implementing these standards
8. Antigua will send to Mexico City, in the near future, two technical people, for a training course in regards of energy efficiency testing for refrigerators, in ANCE laboratory. ANCE will take care of local expenses (hotel and food).
9. R Nava shall provide the Mexican energy refrigeration for refrigerators to Mr. Fulgence St. Prix, with CONUEE authorization to permit: study it, apply it, adopt it or adapt it, free of charge.

Proposed Timeline:

- Wednesday April 8th. CARICOM Secretariat and CROS-Q will develop a work plan
- To be confirmed. Members of the RCEEB will discuss the work plan, so it can be discussed areas to synchronize resources and collaborations
- April 13-17. COPANT Meeting in Mexico City.



RCEEB Leadership Team:

- Dr. Devon Gardner – devon.gardner@caricom.org CARICOM Secretariat
- Mr. Deryck Omar – deryck.omar@crosq.org CROS Q
- Mr. Fulgence St. Prix – fulgence.stprix@crosq.org CROS Q

Deliverables:

- *The Regional Collaboration on Efficient Energy-use in Buildings (RCEEB)* was established as the coordination mechanism related to the building energy codes and appliance energy standards and labels. It is led by CARICOM Secretariat and CROS-Q, and consisting of leaders from UNEP/ESD, GIZ/REETA, OAS/ECPA, PTB, other relevant actors.
- The presentations made during the workshop will be uploaded at <http://www.ecpamericas.org/>





ANNEX I - CONCEPT

Experience Exchange on Standardization for Energy Efficiency of Appliances in the Caribbean (Follow-up to ECELP)

Background

The **Energy and Climate Partnership of the Americas (ECPA)** aims at the achievement of specific regional and national energy goals for the advancement of energy sustainability by fostering partnership and collaborative mechanisms across the region. **The ECPA Energy Efficiency Working Group** implemented by the OAS's Department of Sustainable Development with the leadership and guidance of the Government of Mexico through its Secretariat of Energy (SENER) and National Commission for the Efficient Use of Energy (CONUEE), provides technical collaboration and support in the advancement of energy efficiency and conservation. These cooperation activities contemplate regional capacity-building through workshops, exchange missions and exchange of information and experiences with other regional initiatives on energy efficiency.

OAS, COPANT, SIM and IAAC and PTB are implementing a regional project "**Quality Infrastructure for Energy Efficiency and Renewable Energy Sources in Latin America and the Caribbean**". The objective of the project is to strengthen the capabilities of the regional organizations COPANT, IAAC and SIM and to improve technical competences in the region for the integration of renewable energy sources and to facilitate the implementation of energy efficiency programs.

The **Eastern Caribbean Energy Labeling Project (ECELP)**, which ended in February 2013, aimed at increasing the energy efficiency in the OECS region by introducing energy efficiency labels and standards for electrical household appliances and lighting equipment and promoting the use of energy-efficient products. As a first step the project focused on refrigerators and compact florescent lamps (CFLs).

ECELP also supported the national Bureaux of Standards (BoS) of the participating countries (Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent & the Grenadines) in public awareness and education and drafting of voluntary agreements with retailers of electrical equipment, in the realization of the technical prerequisites to carry out the necessary



tests of refrigerators and CFLs in order to evaluate their energy efficiency status.

Other ECELP activities, such as the training of retailers, the development of energy efficiency labels and standards depend on a certain technical competence developed at the BoS in order to be successfully implemented.

ECPA/EEWG with the support of the regional OAS-COPANT-IAAC-SIM-PTB project intends to support the sustainability of the measures supported by ECELP and to this end organizes this workshop to exchange experiences among the interested BoS.

Objective(s)

To discuss effective approaches for labeling, energy efficiency standards and relations to retailers.

To facilitate identification and evaluation of opportunities for use of internationally available standards, for harmonization, and other avenues to mutual recognition of test results, test protocols and test procedures among participating territories.

To promote the decision making process on regional priorities, to discuss effective approaches for labeling, energy efficiency Standards and relations to retailers.

Target Group

Responsible BoS-staff for product and standards compliance and / or standards development. The participant should know about / be involved in:

- The situation regarding energy efficiency labels and labeling standards for energy efficient household appliances introduced in his / her respective country
- The efforts made at the BoS to build up relationships with retailers
- The situation regarding the Voluntary Agreements (Label Agreement, Testing Agreement) between the BoS and retailers and the challenges encountered in this process
- National priorities in terms of preferred products for labeling
- Background on the national energy policy and its implementation

Expected Impact

Consumers will benefit from the increased technical competence at the BoS for energy efficiency measurements, because the technical basis for the necessary supervision of imported electrical equipment is established. Effective and regionally harmonized energy standards and labels ensure, once mandatory, that all related products will be inspected upon import regarding their energy efficiency performance,



which in the longer term will impact on the regional market and significantly save electricity.

Relation to strategy/work plan of regional organizational involvement

Identification of energy efficiency standards and labeling schemes for domestic electrical appliances for harmonisation and subsequent implementation within CARICOM Member States. By developing these regionally harmonised standards CROSQ will be realizing its mandate issued by the Forty-First Special Meeting of the COTED on ENERGY held 1 March 2013, in Trinidad and Tobago and by extension fulfill the objective (e) of the Regional Energy Policy, which is the “establishment and enforcement of labeling and specification standards for the importation of electrical appliances

Methodology

2-day Workshop

Contents

- Situation in standardization of energy efficiency labels and standards (regional, international) for electrical household appliances (refrigerators, lighting, ACs, washing machines, etc.)
- COTED Mandate to CROSQ for the development of energy efficiency labeling standards (details, current state of affairs, timeframe, etc.)
- Discussion of possible approaches to regional harmonization of energy efficiency labeling and standards, guided through CROSQ, development of a proposal for a regional approach
- COPANT standards on energy efficiency and labeling (is adoption a way to go for CROSQ?)
- Mandatory or voluntary energy labels and standards?
- Energy labeling requirements (content, layout, classification requirements regarding energy efficiency, minimum-energy-performance requirements, etc.)
- Adoption of internationally recognized comparative labels
- Voluntary Agreements with retailers (experience, challenges, etc.)
- Possible approaches for technical regulations regarding energy efficiency testing and labeling
- Future trends in energy efficient products to be considered equally
- Derivation of best practices for related activities in the future

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Invited Experts

1. Expert in electro-technical standards (Eng. Rafael Nava Uribe, MABE, México)
2. Expert on regional standardization: Eng. Fulgence St. Prix, CROSQ Secretariat

**Implementing
Partners**

OAS with support of OECS, CROSQ, regional QI-Project, Bureaux of Standards (BoS)



ANNEX 2 – LIST OF PARTICIPANTS

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ANNEX 3 – LIST OF SCOPE COPANT TC 152

Standardization in the field of electric energy conservation and energy efficiency relating to terminology, requirements, testing methods, performance and overview.

Standards Issued
1707 Energy efficiency - Refrigerators, freezers, and refrigerator-freezers.
1711 Energy efficiency - Air conditioners.
1712 Energy efficiency – Washing machines.
1713 Energy efficiency – Household water heaters.
1714 Energy efficiency – Pumps and rotating electrical machines.
Soon to be published
152-008 Energy efficiency – Fixed electrical water heaters
152-014 Energy efficiency – Gas boiler water heaters
152-015 Energy efficiency – Gas cooking appliances
152-016 Energy efficiency – Gas instantaneous water heaters
Under development
152-005 Energy efficiency – Three phase induction motors
152-004 Energy efficiency – Compact fluorescent lamps, circular and tubular
152-006 Energy efficiency – Ballast for discharge lamps
152-011 Energy efficiency – Standby power
152-010 Energy efficiency – Systems and equipments for solar water heaters
152-013 Energy efficiency – Single phase motors
152-017 Energy efficiency – Buildings
152-018 Energy efficiency – LED lamps
152-019 Energy efficiency – Domestic fans
152-020 Energy efficiency - Vehicles
152-021 Energy efficiency – Ceiling fans
152-022 Energy efficiency - TVs