

Ghana: Energy Efficiency for Accra's Public Buildings

The EU Energy Initiative Partnership Dialogue Facility (EUEI PDF) is a flexible instrument of the European Union and its member states, promoting sustainable energy for equitable development in Africa, Latin America and Asia. Founded in 2004, it aims to contribute towards the achievement of the Sustainable Development Goals, in particular goal 7 on energy, as well as to the Paris Climate Agreement.

Background

In 2012, a combination of unreliable power supply and transmission infrastructure coupled with over reliance on seasonal hydropower and foreign fossil fuels plunged Ghana into one of the worst energy crises in the country's history. This situation threatens economic performance and disproportionately affects poor households and women.

The government of Ghana responded by creating the "Ghana Shared Growth and Development Agenda" which features energy efficiency as one of the main measures to alleviate the energy situation in the country. This agenda encouraged the Accra Metropolitan Assembly (AMA) to request the assistance of the EUEI PDF in providing technical and financial assistance to develop an energy efficiency strategy for municipal public buildings in Accra. The goal of the AMA was to use this as a pilot project that can be replicated in other municipal buildings.

Country/Region	Ghana
Project Partner	Accra Metropolitan Assembly (AMA)
Project Manager	Silvia Escudero
Term	April 2017 – November 2017

Objectives

The overall objective of the project was to **demonstrate the benefits of energy efficiency through the acquisition of a leadership role by the AMA with the development of an energy efficiency strategy for municipal public buildings in Accra.**

Specific objectives:

- ▶ Identify **potentials for energy efficiency in selected AMA public buildings** by carrying out energy audits;
- ▶ Enhance the capacity of the **AMA as an institution to develop an Energy Efficiency Strategy and Action Plan** with short, medium and long-term measures to reduce its energy burden;
- ▶ Implement **short-term energy efficiency measures** derived from the strategy in municipal buildings to serve as pilot projects;
- ▶ Share the results with other institutions for **replication and awareness raising.**





Activities

The technical assistance provided by the EUEI PDF comprised of five main activities, each targeted to meet the identified objectives:

- ▶ **Activity 1:** Collect available data to observe recent trends in energy consumption, point out the abnormal levels of consumption as well as **make the distinction between energy mismanagement and overconsumption** due to obsolete equipment or building characteristics.
- ▶ **Activity 2:** Elaborate a **strategy and action plan consisting of two approaches:**
 - a. **Zero or low cost measures** such as energy reliable metering, verification of bills, training for energy managers, staff sensitisation and automatic switch-off.
 - b. **More expensive investments**, such as replacement of obsolete equipment (light bulbs, air-conditioners, window shades, etc.).
- ▶ **Activity 3:** Design a **Pilot Energy Efficiency Projects programme** in municipal buildings, possibly based on carrying out energy audits in selected buildings.
- ▶ **Activity 4:** Design a **financing scheme appropriate to ensuring the funding** of the contemplated investments.
- ▶ **Activity 5:** Develop a **communication plan to report on progress** and share results with key stakeholders.

Results

The technical assistance provided met the defined objectives. The EUEI PDF has:

- ▶ **Installed a pilot PV plant of 5 kW.** The team has ensured a connection under the new Net Metering Scheme in Ghana to generate revenues for the school for the excess power fed into the grid.
- ▶ Set up a strong link for **knowledge exchange in the field of energy** established between the AMA and some national institutions (National Energy Commission).
- ▶ **Enhanced the technical abilities of engineers and technicians** within the AMA (and partially other stakeholders in Accra) through trainings and constant hands-on involvement of data collection, analysis, and procurement of equipment and services during seven months.
- ▶ **Facilitated strategic knowledge to the Resilience Office of the AMA of energy efficiency** in public buildings, process for audit, options for financing etc. The AMA is interested in setting up a revolving fund for energy efficiency in public buildings in Accra. The Mayor feels encouraged to fund similar projects.
- ▶ Raised the profile of the **AMA as an example of energy efficiency** in Accra.
- ▶ **Girls from the school St Mary's and Accra Girls who received a training in energy use and conservation**, have started replicating the training with other school students.

Photos: EUEI PDF

The **Partnership Dialogue Facility (EUEI PDF)** currently receives contributions from the European Commission, Austria, Finland, Germany, Italy, the Netherlands and Sweden.



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