Webinar

EE lighting research and demonstration: sharing international lessons learned

Tuesday, 30 March 2021

Good morning ladies and gentlemen, I am Gerhard Pienaar, Deputy Head of Economic Cooperation and Development in South Africa for the Swiss State Secretariat for Economic Affairs (or SECO).

- Switzerland, through SECO, has since 2015 been supporting the Energy Efficient Street Lighting Retrofit Programme in partnership with the South African Department of Mineral Resources and Energy and GIZ.
- But before I say more about this partnership, allow me to first tell you about SECO and what Switzerland is doing in the field of energy efficiency.
- SECO is the Swiss Confederation's leading office for economic affairs. We promote sound framework conditions and governance principles for economic and trade development in partner countries.
- Based on our recently approved **Economic Development Cooperation Strategy for the period 2021 to 2024**, SECO will concentrate its activities on economic growth and sustainable prosperity. We see this as a vital way to contribute to overcoming poverty, inequality and other global challenges.
- Sustainable development requires consideration of climate change and resource efficiency. That is why SECO promotes the reduction of greenhouse gases, adaptation to climate change and the sustainable management of resources in its partner countries, of which South Africa is one.

- We are convinced that emerging economies and developing countries are to play a key role in climate change mitigation.
- If we want to reach the commitment we all made under the Paris Agreement to keep global warming well-below 2°C, we know that it is crucial to support our partner countries financially, but even more importantly, with know-how and technology transfer.
- According to the latest assessment report of the **Intergovernmental Panel on Climate Change,** the potential of energy savings could be massive (between 50-90%) if only energy efficiency and renewable energy measures were to be adopted in the design, construction and operation of buildings and public infrastructure.

What is Switzerland doing at home?

- Let me start by saying that Switzerland's main sources of energy are oil (50%) (of which most of it comes from Africa), natural gas, nuclear power and hydropower.
- Electricity is mainly generated by hydropower (60%) and nuclear power (35%). In a country that is half the size of the province of Mpumalanga, we have 638 hydropower plants. One of them, I am sure most of you know. Remember James Bond, the opening scene of GoldenEye with the bungee jump from the dam wall…this was in CH at the Verzasca Dam…
- 50% of the consumption of energy is related to buildings and construction.
- In CH, there is a long tradition of strong public opinions when it comes to energy supply. Already in the 1970s, intense public opposition has stopped several nuclear power plant projects.
- It also pushed the govt to adopt a new energy law and, in 2017, an Energy Strategy 2050, which I will quickly highlight.

In a nutshell,

- This strategy adopted contains very clear measures to reduce energy and electricity consumption, and to ensure that CH can contribute to reducing its energy-related environmental impact.
- This includes:
  1. Increase energy efficiency
  2. Increase the use of renewable energy
  3. Phasing out from the nuclear energy program.
- The overall aim of the strategy is to reduce energy consumption by 43% and electricity consumption by 13%. Switzerland has also committed to reduce its greenhouse gas emissions by 50% by 2030.

Our development cooperation in the energy sector

- Energy is becoming more relevant than ever, as countries need to match two key targets: (i) a reliable and affordable power supply for their economic and social development, and (ii) climate friendly energy production and use.
- For this reason, we are focusing our efforts on supporting our partner countries to develop their power sector by concentrating on meeting climate goals, fostering inclusive access, expanding renewable energy, increasing energy efficiency and scaling up financing.
- With these efforts we aim to contribute to the achievement of the Sustainable Development Goals, namely Goal 13 (climate action), Goal 7 (affordable clean energy for all) and Goal 11 (sustainable cities and communities).
- When it comes to our international economic cooperation with South Africa in the energy sector, we have been active in three areas:
  - Energy Efficient Buildings through the EDGE Program with IFC

- Energy Efficiency in industry through cleaner production, and
- Energy Efficient Cities and Infrastructure

I will concentrate on the latter.

Energy Efficient Cities & Infrastructure

- The Energy Efficiency Street Lighting Retrofit Programme, which is the focus of today's webinar, is our first flagship project in the area of energy efficient urban infrastructure.
- As you know, South Africa faces a constant rise in electricity demand and a lack of additional power generation capacity. This has led to electricity shortages and load shedding, which we recently have experienced again. In essence, this is not good for economic productivity or growth.
- Some municipalities in the country spend approximately two thirds of their electricity consumption on street lighting. From all energy efficiency interventions currently available, retrofitting streetlights has some of the greatest potential to contribute to the reduction in electricity consumption, CO_2 emissions and immediate financial relief.
- The project aims to demonstrate both technical and energy saving potential that could reduce energy consumption up to 40%. This is done by testing various lighting systems for public spaces, informal business nodes and public transport corridors. We also believe that the LED lighting will greatly increase safety and security in public spaces. This allows for safer trading areas, for example, for especially the informal sector, which enhances economic activity.
- A key innovation with the project was to develop more standardized specifications that would enable municipalities in future to engage better with supply chain management processes.

- We are particularly proud of the Innovation Hub Walkway Project which serves not only as a showcase of available street lighting technologies, but will also contribute to build research and innovation capabilities in a very fast moving sector. The opportunity to train upcoming and talented lighting engineers and technicians should be seized.

- To conclude my remarks, the implementation of SECO's international development cooperation mandate depends on partnerships: partnerships with our partner country Governments, our implementing partners and networks that generate opportunities for collaboration.

- With this in mind I would like to thank our partners in the Department of Mineral Resources and Energy, at GIZ, at our beneficiary municipalities, the Innovation Hub and the private sector players that contributed to the installations in our first pilot project sites for making the EEStLRP a success.

I thank you