Full replacement of all fixtures for LED technology

Expected project CAPEX: 1'800'000 €

Mandating Authority: Secretaria Regional da Economia, Turismo e Cultura

Summary
The project intends to turn Porto Santo Island into a full-scale laboratory in LED street lighting technology, thereby promoting energy efficiency, appreciation of the island’s external image, and lower operating costs.

Location and population
Porto Santo Island - Madeira, Portugal
3,500 inh.

Social and environmental impact
The project is part of the European strategy 20-20-20, namely: reducing GHG emissions, increasing renewable energy and improving energy efficiency. With regard to the environment, the project will reduce air pollution and external energy dependence. Socially, the project will increase quality of life, appreciation of the island’s external image vis-à-vis tourism, and enhance the competitiveness of the local economy.

Main stakeholders
Responsible for operation and maintenance: EEM – Empresa de Electricidade da Madeira, S.A. Ownership of lighting installations: Council of Porto Santo Island
$\textbf{Project maturity}$ (IFC / World Bank Categories)

**STAGE 1 : Concept Development, Site identification**
- Number of Lighting points: 3700
- Mapping of the street lighting system: YES
- Current installation

**Expected energy / expenses savings**
Current annual consumption in public lighting: 1.7 GWh/yr. Expected savings with the LED solutions: 70%

**Source of electricity:**
- Grid connected/ with remote management capabilities

**STAGE 2 : Pre-Feasibility Studies**
- Pre-feasibility study
  - Under consideration

**STAGE 3 : Feasibility Studies**
- Feasibility study
  - Not Yet

**STAGE 4 : Permitting / Financing / Contracts**
- Contract with municipality
  - Without term, regulated by Regional Legislative Decree 2/2007 / M and the Regional Legislative Decree No. 34/2016 / M Authority: Porto Santo City Hall
- Building permits signed
  - Not necessary – it’s a replacement (essentially)
- Environmental impact study
  - Not necessary
- Identified sources of fundings

**STAGE 5 : Engineering / Construction / Commercial Operation**
- Engineering, Procurement and Construction Contractor
  - Not chosen yet (Subject to public tender still to be done)
- Operation and Maintenance Contractor
  - EEM – Empresa de Electricidade da Madeira, S.A.

**Comments**
This project is part of a more ambitious project named: Porto Santo Sustentável - Smart Fossil Free Island, involving other local and regional authorities, and other technologies like: ESS (Energy Storage System), electric vehicles (Vehicle to Grid-V2G), LED lighting with tele management, buildings energy efficiency and smart grids. It should be noted that the ESS (Energy Storage System) project is currently in tendering procedure for the acquisition of a system with 4 MW / 3MWh, for Porto Santo Island.