

FINANCE ROADMAPS FOR CLIMATE PROJECTS

How can local governments in Sub-Saharan Africa facilitate access to finance?

Public Lighting Chapter Summary

The “**Finance Roadmaps for Climate Projects**” report is aimed at providing Local Governments (LGs) located in Sub-Saharan Africa with practical roadmaps of action steps they can proactively undertake to facilitate the identification, development, finance, and implementation of Climate Projects for their constituencies. The “Public Street Lighting Projects” chapter of the report aims at presenting solutions for LGs to overcome financing barriers while keeping in mind that this topic is an opportunity to implement efficient technologies and thus reduce emissions, mitigating climate change.

Addressing the topic of Public Street Lighting (PSL) involves two different kinds of potential interventions for LGs. First, Public Street Lighting Efficiency Projects allow LGs to replace or “retrofit” existing public lighting infrastructure with energy efficient lamps and fixtures, and automatic controls to optimise performance and energy use. Secondly, Public Street Lighting Expansion Projects allow LGs to make use of more efficient technologies when expanding public lighting services.

Implementing PSL efficiency and expansion projects represents evident development benefits for cities, such as increased economic and social activity. It also creates climate and environmental benefits, as well as economic benefits for LGs. Economic benefits for LGs can be translated as a decrease in lighting budgets thanks to efficiency, once the replacement costs have been paid back. Climate and Environmental benefits however, resulting from the shift to efficient technologies such as LED bulb for example, are reduced fossil fuels consumption and electricity savings. Indeed, over the course of its lifetime, it is estimated that one single LED bulb avoids the emission of around 800kg of CO₂ when compared with classic lighting technologies.

LGs can undertake a proactive role in development and finance of PSL Projects to overcome budgetary and technical barriers. A financing roadmap for doing so is detailed in the report and is here outlined.

First, different financing models can be implemented to unlock investment in PSL Projects. These models, called Turnkey models, ESCO (Energy Services Companies) funded models, Public-Private Partnership (PPP) models, or Service Level Agreements (SLA) present different characteristics and imply different distribution of responsibilities. These models’ particularities and respective advantages are detailed in the report. For each model, a different allocation of roles is observed. Indeed, while for public owned and private sector managed projects, such as with the SLA model, design and construction risks are attributed to LG but operation and maintenance responsibilities are managed by the private entity. In the case of PPP model, design risks, construction risks, operation and maintenance are managed by the private entity. Generally, it is the required level of investment and the revenue certainty that influences the choice of model.

Of course, each financing model presents different advantages and disadvantages, and these are exhaustively summarised in the report. For example, a disadvantage of the public sector funded and managed model is the high reliance on grants from NG and donors. Parallely, a disadvantage of the PPP model is the high level of technical, financial and legal expertise required to develop said model. Determining which financing model is most appropriate for a PSL project requires early action steps from LGs. The LG must for example gather information on the total annual amount of PSL expenditures and develop project management capabilities to manage and monitor contracts.

Generally, similar risks and revenue factors can be observed when considering PSL projects in SSA. First, public lighting may need to compete for limited revenue sources unless specific tariffs are in place to recover costs from users. While the issue of limited revenue resources is not specific to PSL, these projects present an important predictability of both demand and supply. Besides, PSL projects benefit from their reliance on well-known and tested technologies. However, some challenges arrive as often, PSL projects are considered “too small” for lenders to invest resources in necessary procedures. Last, a specificity among PSL projects is the opportunity to transfer both capital expenditures and operating expenses arising from these projects, to the private sector, in a cost-effective manner.

After presenting a summary of the main proactive action steps that LGs can take to advance PSL projects such as budget development, evaluation of technical solutions, or feasibility studies, successful PSL projects examples highlight good practices. The City of Cape Town in South Africa thus raised a US\$ 162 million long-term concessionary loan from the Agence Française de Développement (AFD) to fund climate focused interventions, including public lighting and energy efficiency. The SA National Government also support the project through a grant. This allowed the City of Cape Town to implement LED traffic lights throughout the city and retrofit more than 15% of streets lights as of December 2017. Another example is a project aiming at implementing an ESCO funded model in 9 Indian cities. Under this model the ESCO and the LG shared performance risk, each party receiving a fraction of the savings from the investment. The programme made use of carbon finance and domestic Indian bank loans and replaced 121,000 lighting points in nine Indian municipalities in 4 years.

To effectively scale the implementation of PSL Projects, national and local governments need to create an enabling environment that allows LGs to facilitate the required access to experts and funding. While these factors can be retrieved from the report, it reiterates the importance of LGs proactive attitude while indicating paths to follow. It is also necessary to remind about the importance of NGs support, particularly through legislation, as well as expert support and guarantees provision. For example, Kenya’s 2019 New Energy Act mandates LGs to set up Energy Efficiency Funds to promote and fund energy efficiency interventions.

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