

Activity XXXXX

Development of a Large-Scale Energy Efficient Lighting Program

Terms of Reference

For

Energy Efficient Lighting Program Design Expert

I. General Scope

An international **Energy Efficient (EE) Lighting Program Design Expert**, with extensive practical and relevant experience, will be hired to provide about **fifteen (15) days** of consulting services for supporting a DFID team to help develop, for the Government of Malawi, a detailed design and an implementation plan for a large-scale energy efficient lighting-based demand-side management (DSM) program (to be implemented by XXXX), and to examine the associated CDM potential.

The work has to be performed on a quick response mode and will require travel to Malawi (at present 1-2 missions are expected). The consultant will work under the guidance of the DFID project team (XXX). His/her services will be rendered intermittently during the period starting from the date of signing of the contract (tentatively, by **XXX**) to **XXX**. As a part of this assignment, the consultant will liaise closely with the DFID project team, XXXX, and other stakeholders. In close consultation with the DFID team, the consultant will also coordinate, as necessary, with the other bilateral and multilateral donors which are actively working in the area of energy efficiency development in Malawi. The consultant will be using international best practices (including World Bank and other program experiences) and draw upon standard templates and documents (including those available through the CFL Toolkit prepared by ESMAP-World Bank, available at website- <http://www.esmap.org/news/news.asp?id=126>).

The consultant will prepare and submit **an inception report** (which will include the program design outline) during (or immediately after) the first mission (expected to be held around **early June**). He/she will present the **draft final report** (including program design and implementation plan, analysis of results, TOR for associated activities, technical specifications and bidding documents, etc.) **by XXX**. He/she will also be available to discuss and coordinate this work and its outputs with the DFID project team throughout the duration of this project. The **final report**, incorporating comments/suggestions from the DFID team and other stakeholders, will be prepared and submitted by the consultant **by XXX**.

II. Background

Malawi's electricity sector ...
(to be completed)

III. Specific Tasks

The consultant will be responsible for implementing the following specific tasks during his/her assignment:

1. Review/evaluate design document/ concept papers for the existing energy efficiency (EE) experience in Malawi.

2. Analyze the power system demand data, load curves, consumer data, etc relevant to the design of large scale EE lighting program, vis-à-vis its scale, scope and target, and its potential impacts. Based on this analyses, prepare a program design outline and closely consult with XXX (local electric utility) team to come to a conclusion about the broad parameters (numbers of CFLs, targets, distribution modalities, etc.) of the bulk CFL deployment program.
3. Drawing upon the international best practices (including World Bank's programs), design and facilitate the implementation of a consumer lighting end use survey (questionnaire) if necessary. Initiate a survey with the help of local support (to be arranged by the Government or utility team); Prepare a TOR for Survey consultants and guide the local survey team. Review and analyze the survey results.
4. Drawing upon the international best practices (including World Bank's programs), develop the CFL Program Design (clearly specifying peak load and energy savings analyses, GHG emissions analysis, financial/economic analysis from utility and consumer perspective, distribution mechanism [free or full/partial cost-recovery basis], market transformation aspects, defining the exact scope and size of the program, program phasing aspects, etc.)
5. Drawing upon the international best practices (including World Bank's programs), prepare complete CFL technical specifications (ratings, voltages, types, efficacy, etc.) adapted to the quality and technical needs of the service territory and to be used in procurement documents;
6. Prepare complete procurement/bidding documents, including specifications, and list of potential suppliers. Refine/modify the parameters of the program design at this stage, if necessary, based on the results of the consumer survey.
7. Develop Investment aspects and analysis of the program, including potential use of co-financing support and/or Clean Development Mechanism (CDM) incentives.
8. Prepare TORs for consumer awareness program and help facilitate the selection of local service providers who would implement such an awareness program.
9. Help organize the stakeholder workshop, and present the findings of the work and program design at this workshop.
10. Design TORs for, and facilitate the selection of experts for a program for monitoring and evaluation of impacts (kW, KWh, GHG emissions reduction, etc.)

IV. Deliverables to be Prepared by the Consultant

Assuming that the consultant will come on board around XXX, and will be available to do the first mission in XXX time frame, he/she will prepare the following deliverables along the following timeline:

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| • Inception Report | XX-XX-XX |
| • Large scale CFL Procurement Program Design Draft | XX-XX-XX |
| • Large scale CFL Program Implementation Plan Draft | XX-XX-XX |
| • Residential Consumer Survey Analyses Report | XX-XX-XX |
| • Stakeholder Workshop (Support and participation only) | XX-XX-XX |

V. Contracting and Payment Terms

The payment will be made to the consultant as per the following proposed terms:

- Signing of Contract: XX%
- Completion and submission of Draft Reports XX%
- Completion and submission of Final Reports XX%