

RMK11 ENERGY EFFICIENCY PROJECT IMPLEMENTATION

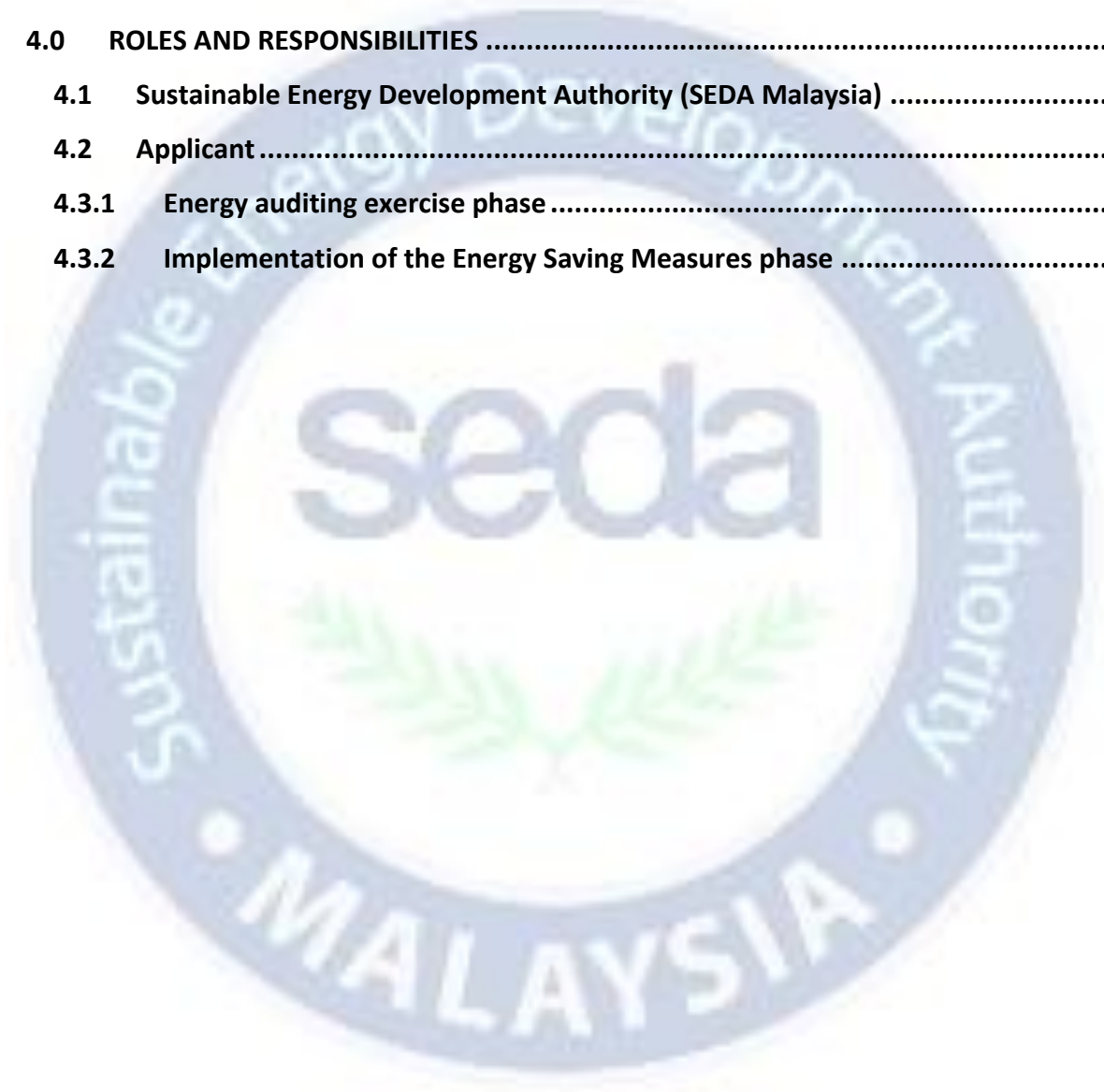
TERMS OF REFERENCE FOR ENERGY AUDIT IN BUILDINGS

(FOR BIG COMMERCIAL BUILDINGS)



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1.0 INTRODUCTION

Energy Efficiency Projects Malaysia is an incentive under the Eleventh Plan (RMK-11) has been approved by the Economic Planning Unit (EPU), Prime Minister Department recently.

The incentive is a conditional energy audit grant for Commercial Building sectors. It is a three years period project starting in 2016 until 2018. Any commercial and industrial building which are consuming big amount of electrical energy and categorised under the *Efficient Management of Electrical Energy Regulation 2008 (EMEER)* by Energy Commission, are eligible to apply.

The Ministry of Energy, Green Technology & Water (KeTTHA) and Energy Commission are the joint executing organisations to ensure the implementation of the incentive will benefit the building sectors, particularly on the effort to manage and reduce energy consumption.

SEDA Malaysia has been appointed by KeTTHA as implementing agency on behalf of the government, to promote, facilitate and process the application by the commercial and industrial buildings owner.

Energy audit is a systematic process to understand how and where the energy being used, to explore on how to manage it and identify the energy savings potential.

2.0 OBJECTIVES

The objectives of the RMK11 Energy Efficiency Project are;

- a) To provide awareness to the applicants, the importance of implementing energy audits as part of energy efficiency and conservation exercise. Energy audit is a systematic process to understand how and where the energy being used, to explore on how to manage it and identify the energy savings potential.
- b) To provide financing assistance to the eligible applicants through grant, as a catalyst for the implementation of energy audit, in order to identify the current energy consumption pattern, setting the Baseline and identify the energy savings potential.
- c) To attract financial institutions to finance energy efficiency projects such as energy performance financing mechanism, in order to reduce the financial burden to the applicants.

- d) To provide a platform and facilitation for the implementation of energy saving measures based on the energy audit report outcome.
- e) To ensure electrical energy saving achieved through the implementation of the energy saving measures proposed in the energy auditor report, in accordance to the conditional grant agreement.
- f) Development of capacity building in industry to meet the demand of energy audit activity in the commercial sector / industry.

3.0 APPLICATION REQUIREMENTS FOR ENERGY AUDIT CONDITIONAL GRANT

- a) Any commercial building which are consuming big amount of electrical energy (using electrical energy equivalent or more than 3,000,000 kWh for 6 consecutive months, which listed under the *Efficient Management of Electrical Energy Regulation 2008 (EMEER)* by Energy Commission, are eligible to apply.
- b) Applicant shall appoint a registered electrical energy manager
- c) Energy audit exercise must be completed within 2 months starting from the date of contract signing
- d) Applicant shall select and appoint an energy service company (ESCO) before submit grant application to SEDA Malaysia. The ESCO shall be registered with Energy Commission.
- e) Energy audit grant will be provided to eligible applicant. However, applicants need to be agreed and ready to implement energy saving measures for which the cost of implementation is equal or more than the amount of energy audit grant received.
- f) The implementations of the energy saving measures are according to energy audit report, and shall be within 3 years after the energy audit completed. However, the No Cost Energy Saving Measures should be implemented immediately after acceptance of the energy audit final report for the benefits of the applicant.
- g) The energy saving target is 5% per year as per **Table 1**;

Table 1: Energy Saving Measures and Implementation Target

Item	Energy Saving Measures Recommended in the Energy Audit Report	Minimum Energy Saving to Achieve	Period of implementation
1	No Cost Energy Saving Measures	Minimum 5% energy saving compared to baseline.	1 st year
2	Low Cost and Medium/High Cost Energy Saving Measures	Minimum 5% per year energy saving compared to baseline	2 nd and 3 rd Year
	Total Energy Saving Measures implemented	Total minimum of 15% compared to baseline	

4.0 ROLES AND RESPONSIBILITIES

4.1 Sustainable Energy Development Authority (SEDA Malaysia)

SEDA Malaysia as the implementing agency is responsible to;

- i. Provide the application form, application requirement and criteria, process workflow, conditional agreement, scope of work and grant disbursement to the applicant;
- ii. Manage conditional energy audit grant;
- iii. Assist KeTTHA and ST in promotional activities and technical training;
- iv. Review, process and approve the conditional energy audit grant application;
- v. Monitor energy audit works at applicant's premise;
- vi. Review and verify energy audit report submitted by applicant;
- vii. Process and disburse grant according to progress works;
- viii. Provide facilitation and advice to applicants on the overall project exercise, to ensure the project direction is according to the objective. This includes advisory activities related to energy management.
- ix. Organise energy management trainings.
- x. Coordinate and monitor the implementation of the project from time to time
- xi. Monitor and verify the implementations of the energy saving measures recommended in the energy audit final report.

4.2 Applicant

4.3.1 Energy auditing exercise phase

Applicant is responsible to;

- a) Fill-up the relevant forms and submit official application to SEDA Malaysia.
- b) Nominate the focal person / person in charge for the project.
- c) Appoint own energy services companies (ESCO) that registered with Energy Commission to conduct the energy auditing exercise. SEDA Malaysia and government are not responsible to the selection and appointment of the ESCO. The appointment and service charges payment to the ESCO is under the responsibility of the applicant.
- d) Update SEDA Malaysia project timeline once application approved.
- e) Ensure the ESCO execute energy audit exercise according to the methodology, quality and reporting format outlined in the Energy Audit requirements. SEDA Malaysia has right to reject any energy audit exercise and reports that not according to the requirements. SEDA Malaysia will not be held responsible to any additional cost arise due to the delay in complying the requirements.
- f) Provide progress, draft and final reports to SEDA Malaysia according to the agreed timeline, SEDA Malaysia will make comments and revert for improvement.
- g) Provide 3 final reports hard copy and a soft copy (Ms Office) to SEDA Malaysia.
- h) Submit 2 invoices (upfront and final payment) to SEDA Malaysia for payment purposes. Applicant is responsible to pay the additional charges such as GST and/or other taxes.
- i) Attend the energy management training conducted by SEDA Malaysia under the project.
- j) Communicate with SEDA Malaysia to ensure the energy audit exercise completed according to the objective and requirement of the project.

4.3.2 Implementation of the Energy Saving Measures phase

Within 3 years after energy audit exercise completed, applicants are responsible to;

- a) Comply with EMEER requirements issued by Energy Commission
- b) Achieve 15% accumulative saving in 3 years as per **table 1**
- c) Implement the energy saving measures recommended in the energy audit report submitted by the ESCO in this project.
- d) The implementation cost could be borne by applicant or using energy performance contracting (EPC).
- e) Communicate with SEDA Malaysia to ensure the implementation of energy saving measures.
- f) Attend the energy management training organised by SEDA Malaysia under the project to ensure continuous development of capacity building within the organisation.

