



KEMENTERIAN PERALIHAN TENAGA DAN
TRANSFORMASI AIR



RMK-12 ENERGY AUDIT CONDITIONAL GRANT (EACG) AND ENERGY MANAGEMENT PROJECT IMPLEMENTATION

TERMS OF REFERENCE

(INDUSTRIAL AND COMMERCIAL SECTORS)

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1.0 INTRODUCTION

As a continuity from Energy Audit Conditional Grant under RMK-11 Energy Efficiency Projects for year 2016-2020, The Energy Audit Conditional Grant (EACG) is an energy efficiency programme under the 12th Malaysia Plan (RMK-12) for the implementation year of 2021-2025. This programme is supported by grants which were allocated for the year 2021 until 2025 to industrial and commercial building owners/operators to collaborate with local Energy Service Companies (ESCOs) registered with the Suruhanjaya Tenaga (ST) to conduct energy audit in their premises.

The programme is executed by the Ministry of Energy Transition and Water Transformation (PETRA). SEDA Malaysia is the implementing agency and ST is the coordinator for this program. SEDA Malaysia is the implementing agency for both commercial and industrial sector.

This programme was approved with a total allocation of RM 86,734,000.00 under RMK-12 (2021-2025).

The allocation will be channeled in stages in accordance with the financial procedure and ceiling allocation approved by the Authority for the 5-year quota involving 230 commercial buildings and 630 industrial premises. The grant can be used by the recipients to cover the cost of energy audits on their premises under the condition that the applicants/owner agree to implement the energy efficiency measures recommended in the energy audit report to achieve efficiency in energy saving.

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

2.0 OBJECTIVES

The main objectives of this program are:

- i. To provide financial facility (assistance) through the 5 years (2021-2025) conditional grant;
- ii. As a catalyst for the implementation of energy audits and to identify the total energy consumption as well as setting up the baselines for industrial and commercial premises;
- iii. To provide a platform and facilitation for the implementation the energy saving measures (ESM) according to the outcome of energy audit report;
- iv. Capacity development for industry and commercial premises owners and ESCOs, in order to fulfil the current and future demand of energy management in industrial and commercial sector; and
- v. To foster awareness on the importance of energy management among the industrial and commercial premises owners in Malaysia in order to reduce the energy consumption.

3.0 APPLICATION REQUIREMENTS FOR ENERGY AUDIT CONDITIONAL GRANT

- a) Any installation (industrial and commercial) which receives electrical energy from a licensee or supply authority with a total electrical energy consumption equal to or exceeding 100,000 kWh per month as measured at one metering point or more;
- b) Any installation which is used, worked or operated by a private installation licensee with a total net electrical energy generation equal to or exceeding 100,000 kWh per month;
- c) For installation listed under the Energy Efficiency and Conservation Act (EECA) 2024, applicant shall appoint or designate a Registered Energy Manager (REM) to carry out the **functions and duties***;
- d) For installation which is not listed under the Energy Efficiency and Conservation Act (EECA) 2024, applicant shall appoint or designate a person in charge to carry out the **functions and duties***;
- e) The Energy Audit must be completed within two (2) months starting from the date the acceptance letter is signed;
- f) One owner/operator can apply for one or more installations and must appoint an Energy Service Company (ESCO) registered with the Energy Commission (for peninsular), Electrical Inspectorate Unit, EIU (for Sarawak only) or Energy Commission of Sabah, ECoS (for Sabah only) for the energy audit implementation.
(List of the ESCO registered with the Energy Commission can be referred via <https://www.st.gov.my/web/consumer/esco>);
**for Pre-Registration, please put the details of the ESCO that will be appointed (if any) to implement the energy audit in the installation.*
- g) An energy audit grant will be provided to the 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 received amount of energy audit grant;
- h) The energy saving measures shall be implemented as specified in the energy audit report and must be completed within three (3) years after the completion of energy audit, in compliance with the agreement period. However, the No Cost Energy Saving Measures should be implemented immediately after acceptance of the energy audit final report for the benefit of the applicant;

- i) The energy saving target is based on the findings from the energy audit report that has been approved by SEDA Malaysia. **Example** of scenarios that meet the terms and conditions of the EACG Program can be referred as below;

				Within thirty-eight (38) months of EACG contract	
Sector	Scenario (if)	Common minimum target of energy savings	Energy Audit Report findings	Expected minimum energy savings to be achieved	Expected minimum implementation cost
Industrial (applied maximum for RM100k)	1	10%	8%	8%	Equal to amount of grant received
	2	10%	20%	10%	
Commercial (applied maximum for RM60k)	1	20%	12%	12%	Equal to amount of grant received
	2	20%	30%	20%	

Table 1: Example of scenarios that meet the EACG Program terms and conditions

- j) The applicant/owner must implement the recommended ESMs according to the energy audit report. However, the applicant/owner is not compulsory to implement all the recommended ESMs in the energy audit report as long as the total minimum energy saving is achieved and the implementation cost is similar or higher than the total amount of grant.

*Functions and duties of a Registered Energy Manager or Person in charge:

- 1) To collect and analyse the data on energy of and energy consumption by, the energy consumer;
- 2) To ensure that the energy consumer implements the energy management system (EnMS);
- 3) To monitor the implementation of the EnMS by the energy consumer;
- 4) To prepare the Energy Efficiency & Conservation (EE&C) report for the energy consumer;
- 5) To ensure the accuracy of information provided in the EE&C report;
- 6) To advise the energy consumer on any other energy saving measures which may be implemented by the energy consumer and to monitor the implementation of such measures; and
- 7) To carry out such other duties as may be determined by the Commission

4.0 PROCESS FLOW

4.1 The overall process flow of the programme is as below:

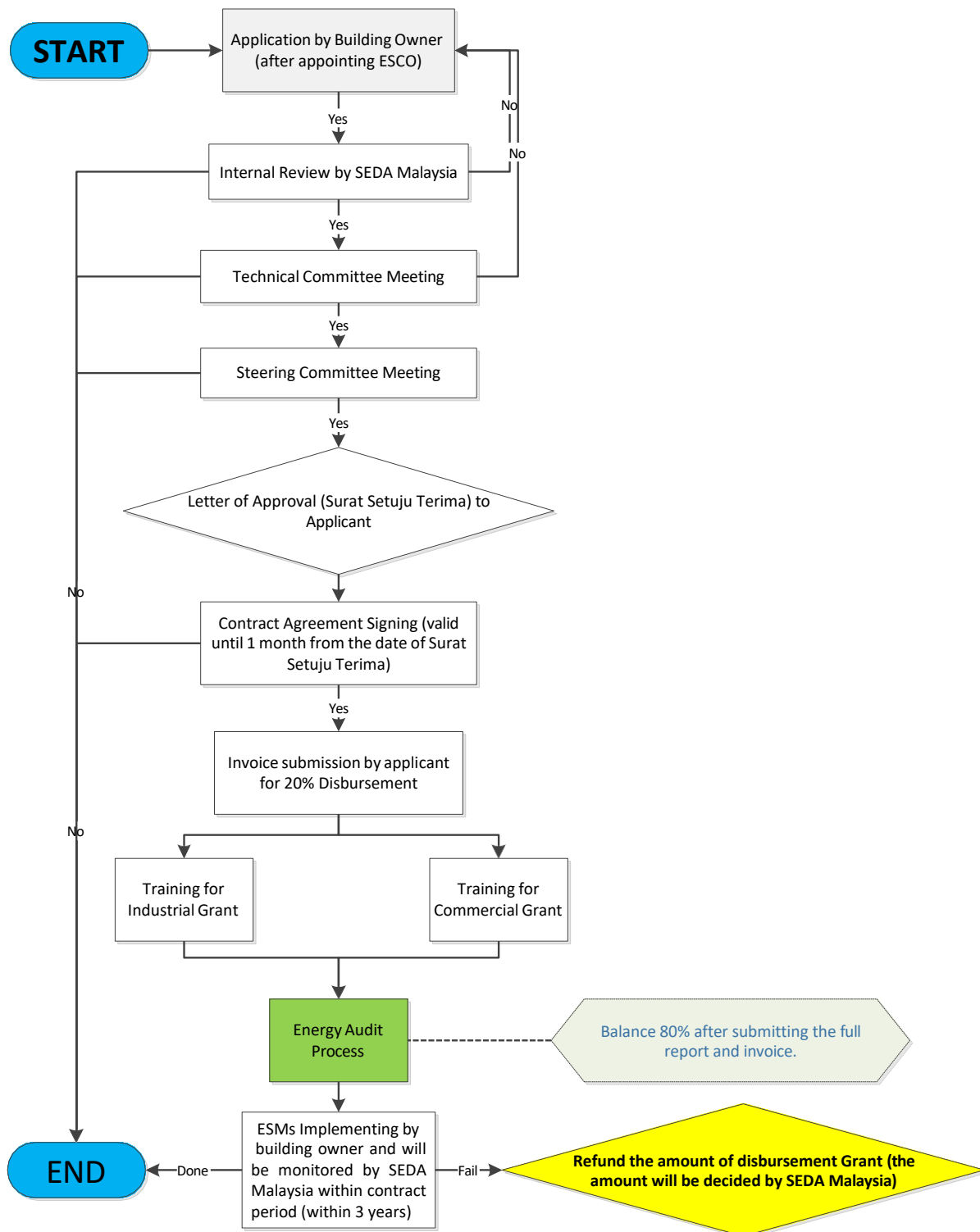


Figure 4.1: Process flow of the project

4.2 The application process flow of the programme is as below:

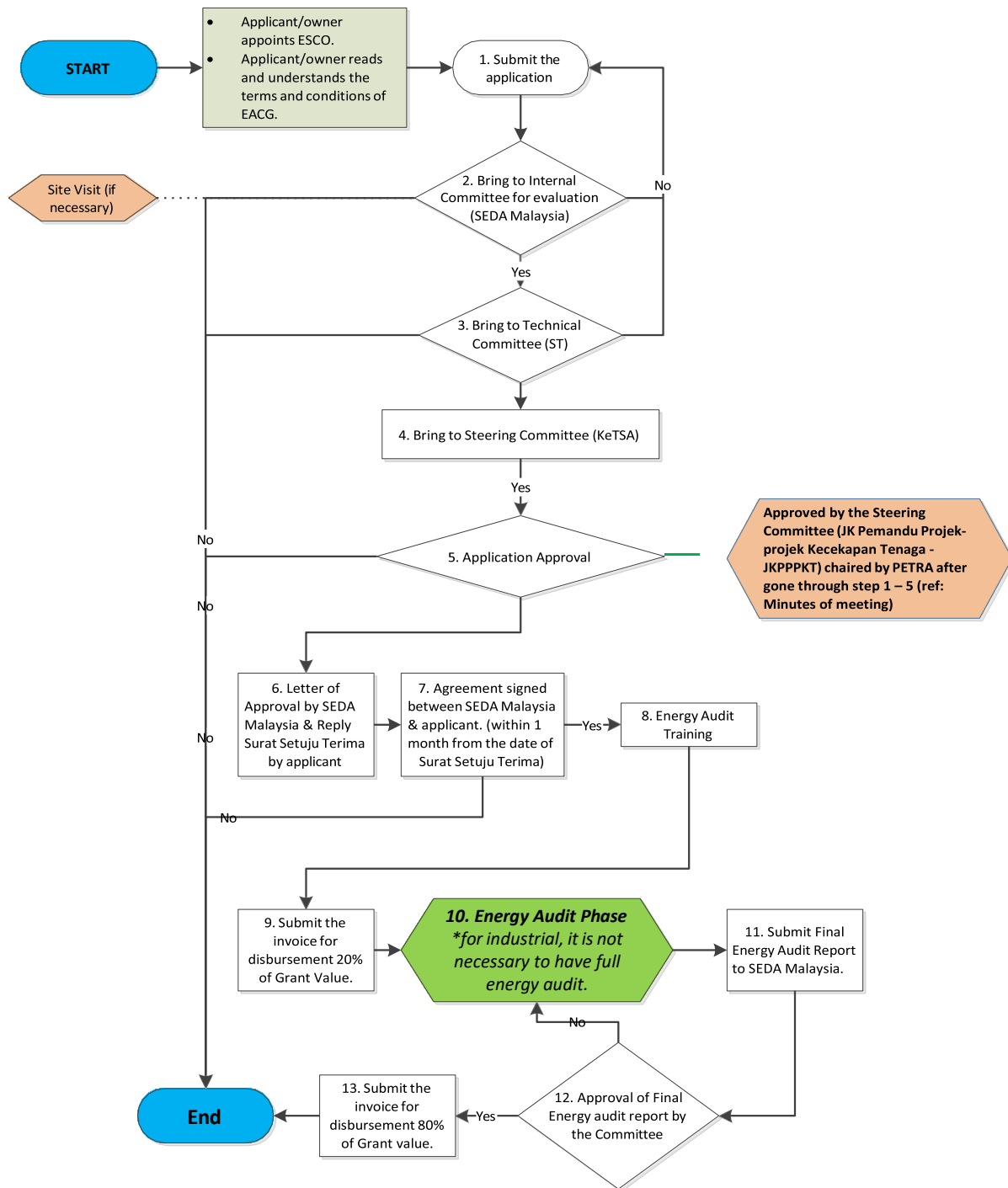


Figure 4.2: Application process of the grant

4.3 Reporting and data verification process flow of the programme is as below:

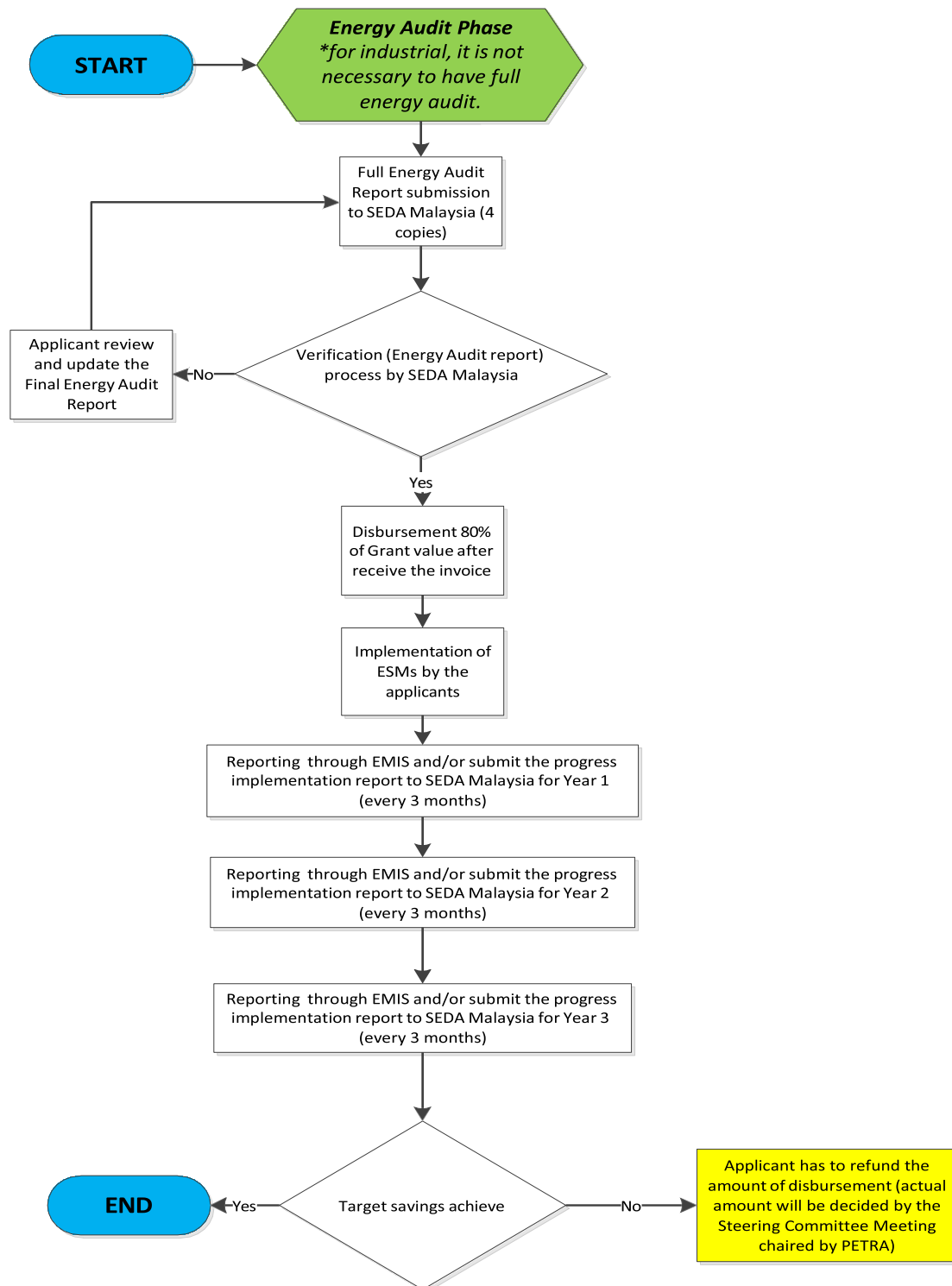


Figure 4.3: Reporting and verification process flow

5.0 ROLES AND RESPONSIBILITIES

5.1 Sustainable Energy Development Authority (SEDA Malaysia)

SEDA Malaysia as the implementing agency is responsible to:

- i. Manage the contract which is signed under both parties;
- ii. To provide the application form, application requirement and criteria, process workflow, document contract, scope of work and grant disbursement to the applicant;
- iii. Manage energy audit conditional grant;
- iv. Assist PETRA and ST in promotional activities and technical training;
- v. Review, process and approve the energy audit conditional grant application;
- vi. Monitor energy audit works at applicant's premise;
- vii. Review and verify energy audit report submitted by applicant;
- viii. Process and disburse grant according to progress works;
- ix. 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;
- x. Organize energy management trainings;
- xi. Coordinate and monitor the implementation of the project from time to time; and
- xii. Monitor and verify the implementations of the energy saving measures recommended in the energy audit final report.

5.2 Applicant

5.2.1 Energy auditing exercise phase

The applicant is responsible to;

- i. Honour (mandatory) the contract where if applicant fails to fulfil the contract, they will have to refund back the disburse amount;
- ii. Fill-up the relevant forms and submit the official application to SEDA Malaysia. The Application Form (Industrial and Commercial);
- iii. To nominate the focal person/person in charge of the project;
- iv. To appoint their own Energy Services Companies (ESCO) that are 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;

- v. To provide SEDA Malaysia with project timeline once the application was approved;
- vi. To ensure that ESCO executes the energy audit exercise according to the methodology, quality and reporting format outlined in the Energy Audit requirements. SEDA Malaysia has the right to reject any energy audit exercise and reports that is 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.

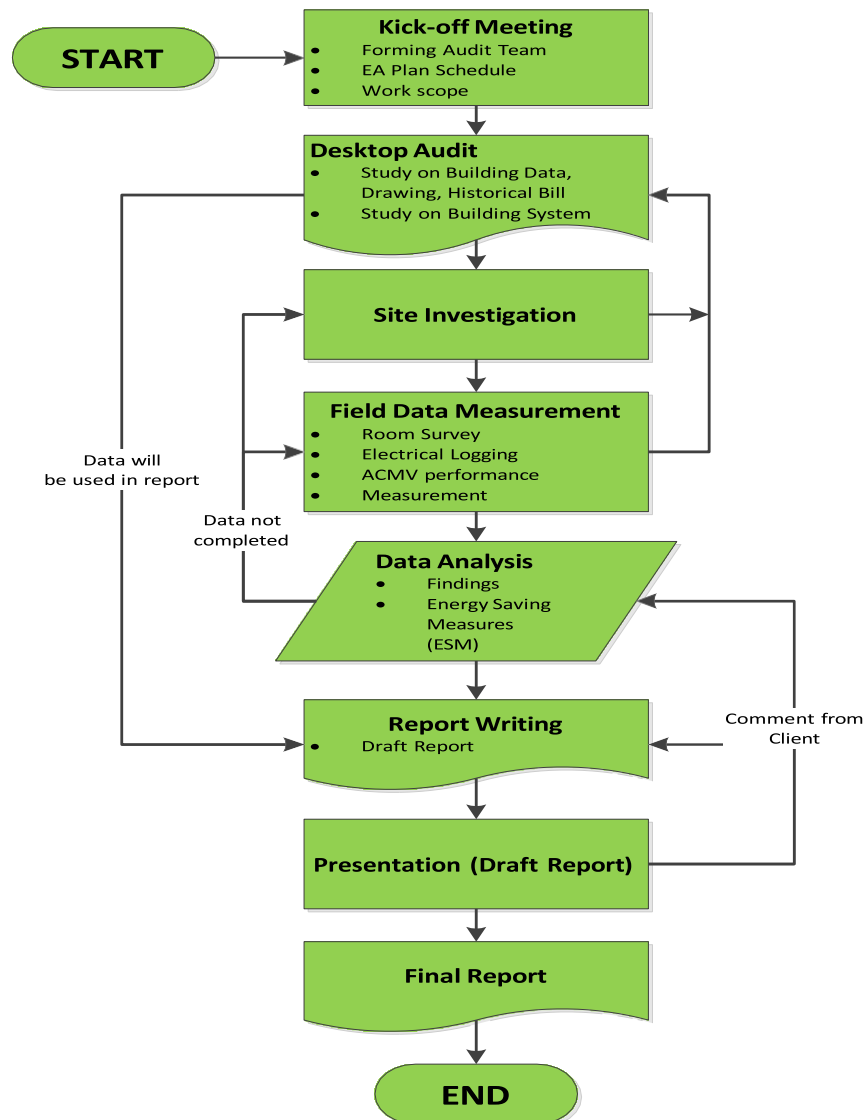


Figure 5.1: Energy Audit Flow Process

- vii. To provide the progress, draft and final reports to SEDA Malaysia according to the agreed timeline, SEDA Malaysia will make comments and revert for improvement;
- viii. To provide four (4) final reports hard copy and a soft copy (Ms Office) to SEDA Malaysia;

- ix. To submit two (2) invoices or letters (upfront and final payment) to SEDA Malaysia for payment purposes. The applicant is responsible for paying the additional charges such as GST and/or other taxes;
- x. To submit the monitoring & evaluation report to SEDA Malaysia (once in every three (3) months) and/or do the reporting through the Energy Management Information System (EMIS) under Energy Commission (every six (6) months);
- xi. To attend the energy management training conducted by SEDA Malaysia under the project to ensure continuous development of capacity building within the organization; and
- xii. Communicate with SEDA Malaysia in ensuring the energy audit exercise is complete and according to the objective and requirement of the project.

5.2.2 Implementation of the Energy Saving Measures phase

Within the agreement period after energy audit exercise is completed, applicants are responsible to;

- i. Comply with EECA 2024 requirements issued by the Energy Commission (for installation which is listed under EECA 2024 only);
- ii. Achieve energy saving as per final energy audit report;
- iii. Implement energy saving measures as recommended in the energy audit report submitted by the ESCO for this project. However, the applicant/owner may select the most appropriate ESMs and it is not compulsory to implement all the recommended ESMs in the energy audit report as long as the total minimum energy saving is achieved and the investment is similar or higher than the total amount of grant;
- iv. The implementation cost could be borne by applicant or using energy performance contracting (EPC). The expenditure on investment cost equivalent to, or greater than the Grant amount for the purpose of implementing the energy saving measures;

$$\begin{array}{l}
 \textit{Year 1 of Investment Cost (RM X)} \\
 + \textit{Year 2 of Investment Cost (RM Y)} \\
 + \textit{Year 3 of Investment Cost (RM Z)}
 \end{array}
 \geq
 \textit{Grant Amount}$$

Failure to implement the ESMs (as stated in ii and iii) without any reasonable justification and agreement from SEDA Malaysia and Program Steering Committee will cause the applicant to refund back the amount of disbursement (actual amount will be decided by the Steering Committee Meeting chaired by PETRA).

- v. Submit the Monitoring and Evaluation Report quarterly to SEDA Malaysia and through Energy Management Information System (EMIS); and
- vi. Communicate with SEDA Malaysia to ensure the implementation of energy saving measures was successfully held.

6.0 Contact Information

For any further inquiry or information, please contact:

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*Prepared and updated by,
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