

Ethiopia Energy Authority



Licensing directive for energy efficiency service Providers and energy auditors

January 2019

Addis Ababa, Ethiopia

Chapter One

1. Issuing Authority

This Directive is issued by the Ethiopian Energy Authority pursuant to the authority vested in it by Article 40(2) of the Energy proclamation No.810/2013 and Article 82 of the Energy Regulation of the Council of Ministers No. 447/2019.

2. Short Title

This Directive may be cited as the Directive for the Energy Efficiency Service Providers and Energy Auditor Licensing.

3. Definitions

The definitions provided under the Proclamation No.810/2013 and Regulation No. ... /2018 are applicable to these Directives.

4. Energy Auditing Licensing

Scope of Application of Energy Auditing

An energy audit is an investigation of all facets of historical and current energy use of an existing facility or organization with the objective of improving energy utilization efficiency. This involves;

- 1/ comprehensive measurements of energy parameters,
- 2/ detailed analysis of energy flows into and out of main equipment and
- 3/ sub systems of the facility, in order to identify and quantify areas of energy wastage.
- 4/ improvements to facility design & installation, operation and management.
- 5/ reduction of energy costs and also for reduction of greenhouse gas emissions contributing to sustainable development.

5. Objectives of Energy Auditing

1/ As an energy audit involves a systematic study undertaken on major energy consuming areas, it should be performed by a team led by a competent professional. Qualified personnel competent to perform these tasks are designated as Energy Auditors.

2/ Energy Audit is a key component in any organization's drive to reduce energy costs and also for reduction of greenhouse gas emissions contributing to sustainable development.

6. Obligation, responsibilities and Duties of Energy Auditor

The responsibilities and duties of Energy Auditor include the followings:

- 1/ Carry out detailed energy audits
- 2/ Quantify energy consumption and establish baseline energy information
- 3/ Construct energy and material balance
- 4/ Perform efficiency evaluation of energy & utility systems
- 5/ Compare energy norms with existing energy consumption levels
- 6/ Identify and prioritize energy saving measures
- 7/ Analyze the technical and financial feasibilities of energy saving measures
- 8/ Recommend energy efficient technologies and alternate energy sources
- 9/ Communicate the findings of the study through comprehensive reports, presentations, etc.
- 10/ Provide assistance for implementation of recommended interventions
- 11/ In accordance with Article 21 of Energy Proclamation, a licensed company report shall follow the necessary standards and contain all the required elements that the energy efficiency and conservation activity intended to accomplish and follow the reporting procedures as provided under Energy Regulation Article 43-44.
- 12/ In accordance with Article 24 and 30 of Energy Proclamation and the Energy Regulation Article 76, a licensed company who performs energy audit service without having license shall be punished according to

7. Qualifications for being licensed as an Energy Auditor

To apply for licensing as an Energy Auditor, the applicant should be

- 1/ A Graduate in Engineering (B.Sc. in electrical, mechanical, industrial and related) of a Higher Educational Institution and has at least 5 years work experience in the field of energy management, Energy operations, Maintenance or Planning.
- 2/ Master's degree in electrical, mechanical, industrial and related Engineering fields and has 3 years' of work experience in the field of energy management, energy operation, and maintenances or planning.
- 3/ In addition to the above sub articles educational qualifications, the applicant should have followed a comprehensive training program complying with Auditor's Training described in Appendix one below and should have carried out at least 3 energy audits substantially covering both thermal and electrical aspects.

8. Assessment procedure

1/ Applications for energy auditor licensing will be called by EEA. Applications should be forwarded to the energy efficiency and conservation directorate along with the following documents.

- a) Copies of certificates of relevant educational and professional qualifications
- b) A copy of the certificate of the training program, adequacy of which as defined below, as approved by EEA
- c) Executive summaries of at least 3 energy audits carried out, with the endorsement of those organizations (In the event of inability to get endorsement, sufficient proofs for the involvement in energy audits should be submitted.)
- d) Comprehensive report demonstrating the knowledge, skills and experience in energy auditing
- e) Service letters from the employers in connection with the experience required
- f) A copy of the receipt obtained from EEA for the payment of the application fee

2/ Once the application is submitted with all the required documents, the applicant should

- a) Approve the Energy Auditor Training Programs
- b) Expected to pass a written exam given by the Authority.

3/ The successful candidates will be issued a Certificate of licensing as an Energy Auditor.

9. Continued Assessment

1/ Licensed Energy Auditors are required to maintain and enhance the expertise through active involvement in energy auditing, energy management capacity development activities and training on continued base.

2/ At the end of each 3-year period after certification, Energy Auditors are required to submit performance review reports to EEA.

3/ Any applicant who fails to demonstrate his/her capacity as energy auditor as assessed by the review report may be given an opportunity to face an interview conducted by a panel appointed by the EE&CD. Failure in reviews may lead to cancellation of application.

10. Energy Auditor Training Programs

1/ Energy auditor training programs recognized by EEA in energy auditor licensing should cover the subject areas given below with at least 60 hrs of training, including a practical session of a detailed energy audit of 20 hrs.

2/ Institutes conducting training programs for energy auditors should register the respective training programs with EEA in order that the completion of such training will be considered as recognized training in the energy auditor licensing process.

3/ In case that the training program has not been registered with EEA the recognition of the training institution and the relevancy of the program will be assessed by EEA on case by case basis.

Chapter Two

Assessment and Certification of ESCOs

11. Objective of ESCO Licensing

1/ Energy efficiency development is well recognized as the main stay in enhancing the energy security, productivity and environmental sustainability of most economies, particularly developing economies.

2/ To ensure strong achievement in energy efficiency, a strong and vibrant energy services sector is a prerequisite.

12. Scope of Application

1/ For the purpose of this Directive, an ESCO is a company dedicated to the provision of energy efficient technology and services including financing, design, implementation and management of projects.

2/ The establishment of an accreditation scheme may lead to the following benefits:

- a) Development of professional and qualified ESCOs and energy engineers;
- b) Enhance the standing of ESCOs, and in particular energy auditing services;
- c) Support services procurement and selection procedures; and
- d) Support public sector incentive schemes in the promotion of energy efficiency.

13. Type and Coverage of licensing

The applicant may seek to obtain license for energy audit and/or implementation of energy efficiency projects under the following categories:

- a) Building: for whole building audit.
- b) Industry: For specific industry sub-sector or industrial facility.

- c) System/Process: For specific system, component or process audit. Examples include Centralized Chilled water (space/process cooling) /Lighting/ Ventilation /Compressed Air/Boiler/Pumping/ Power Generation / etc.

14. Scope of licensing

- 1/ The license scheme as outlined in this Directive shall apply to the provision of energy auditing services by an ESCO with respect to energy audit.
- 2/ This licensing shall be assessed on the Applicant's expertise, capability and track records in the respective sector(s) of industry and category as indicated in the application, as well as the qualifications and experience of the nominated AEA.

15. Requirements for licensing

- 1/ Full license – Existing ESCO (in operation for more than 3 years), to qualify for this licensing, the ESCO must comply with the following requirements:
 - a) The Applicant shall have under its full-time employment a minimum of 1 certified Energy Auditors (AEA), as defined in Appendix A, as the main person to oversee, manage and carry out energy services work; and
 - b) The Applicant shall be equipped with calibrated measuring equipment and instrumentation to carry out energy audit, as described below.
 - c) During the period of licensing, if there is no full-time LEA in the company, the company's information will be removed from the register of accredited ESCOs until further notification by the company.
 - d) It is the full responsibility of the licensing ESCO to promptly notify the EEA of any change within the company with respect to the details and/or presence of AEA within the company.
- 2/ Provisional licensing – Newly Formed ESCO (in operation for less than 3 years)
 - a) The Applicant shall have under its full-time employment a minimum of 1 licensed Energy Auditors (AEA). As defined in Appendix A, as the main person to oversee, manage and carry out energy services work; and
 - b) The Applicant shall be equipped with calibrated measuring equipment and instrumentation to carry out energy audit, as described below.
 - c) The Applicant may be provisionally licensed for 2 years, up to a maximum period of 3 years, whereupon full licensing shall be sought. For subsequent renewal of provisional license, the Applicant has to complete 3 audits in .

- d) Full accreditation may be granted after the Applicant has successfully met the full requirements upon the completion of 3 years of operation /provisional accreditation.

16. Conditions for licensing

- 1/ An Applicant, in submitting an application, is deemed to acknowledge that the sole basis of such an application is the submitted document.
- 2/ Applicant is advised to thoroughly read and check the guidelines before submitting an application.
- 3/ A full and complete submission with all the required details and relevant documents must be submitted.
- 4/ The licensing Committee shall not evaluate any partial and incomplete submission, including failure to submit the necessary documents required.
- 5/ New and renewal application shall be made on a voluntary basis. In any case where renewal is not completed prior the expiry of the accredited period, the company's information will be removed from the registered list until further action by the company has been taken to secure accreditation.
- 6/ EEA accept no responsibility for any expenses, loss or damage which may arise from the evaluation process, interpretations and preparation made by the Applicant including the information contained therein, or omission from the submitted documents.

17.Licensing Criteria Assessment procedures

Upon the receipt of an Application, an assessment will be made to determine the level of compliance with respect to the established guidelines. Application will be assessed on the basis of the information submitted.

18.General licensing Assessment Criteria

The general assessment criteria are as follows:

- 1/ Performance records on the following aspects of energy efficiency audit/assessment, management and EPC projects:
 - a) Building /facility energy audits or assessments
 - b) Energy measurement and verification protocols
 - c) Installation and project management
 - d) Post-Implementation report of completed projects
 - e) Records of energy saving achieved (against guaranteed saving where relevant)
- 2/ Industrial and Workplace Occupational Safety Policies and records.
- 3/ Detailed company work profile.

- 4/ An acceptable organizational structure and legal entity.
- 5/ Applicant must be solvent and be backed by sound technical organization.
- 6/ Range of additional service capabilities, e.g. facility management.
- 7/ Reference letters from 3 or more clients whose projects/contracts have been sited in the company/AEA track records.

19. Technical Capability Assessment

1/ Personnel Technical Competency

For the purpose of this licensing, the criterion of technical competency of the Applicants is measured in terms of personnel competency. The technically qualified person shall be called the “A

EA” who must meet the criteria established in Appendix A.

2/ System and Equipment Set-Up

In order to assess the Applicant’s adequacy in providing a comprehensive energy audit, the Applicant must provide a list of equipments/instrumentation available for such work, including the photographs and specifications of these equipment’s.

3/ The applicant shall also provide details on the status of equipment accuracy and calibration. For this requirement, the applicant may be equipped with, but not limited to, the following equipment and instruments to carry out detailed energy audit and collect the required field data:

- a) Energy Meter
- b) Power Transducer
- c) Data Logger
- d) Ultrasonic Flow meter
- e) Power Quality Analyzer
- f) Current/Voltage Clamp Meter
- g) Pressure Indicator/Prober/Sensor
- h) Temperature Indicator/Probe/Sensor
- i) Humidity Level Indicator/Sensor

4/ As for the calibration of equipment, Applicant shall provide information on standard/reference adopted either through Manufacture/Supplier’s guidelines/manual or Third Party independent certification.

5/ Applicant should also provide information with respect to the use of energy simulation software or programs.

20. Submission of Application

1/ When submitting application for accreditation, the Applicant must complete and submit the following:

- a) A completed Application form
- b) AEA Information form
- c) A completed form listing successfully completed Energy Auditing projects. This should include detailed reports, outcomes or results of projects, and clients' endorsement/reference letters bearing the appropriate letter head and name and designation of signatory.
- d) A completed form listing Equipment and instruments used.

2/ The completed forms and documents are to be submitted to EEA for evaluation.

21. Acceptance of Application for licensing

Application will be evaluated against the stipulated criteria specified in accordance with Articles 16-18 of this Directive.

22. Issuance of license

1/ License will be issued upon successful application.

2/ The accredited ESCO will also be registered on a list of accredited companies for auditing services.

23. License Renewal

A provisional licensing and full license award shall be valid for a period of 1.5 a years and 3 years respectively, whereupon a renewal application shall be submitted with the relevant documentation, otherwise the license shall deem to have lapsed.

24. Confidentiality

1/ All materials and information submitted with the application will be held in strict confidence and will be used for assessment purposes only.

2/ By applying for ESCO licensing, Applicant allows and authorizes the sharing of submitted information and documents amongst and within the ESCO Accreditation Committee.

25. Code of Practice/Conduct

1/ The successful Applicants shall conduct their business in a professional and ethical manner according to the relevant government laws and regulation.

2/ An accredited company may have the accreditation withdrawn or suspended for the following reasons:

- a) Failure to complete any EPC or energy audit work;
- b) Received complaint (s) lodged by Client(s) for consistently delivering poor quality work;
- c) Financially insolvent;
- d) Malpractice and/or fraud;
- e) Major change to the company structure and/or personnel;
- f) Submitted misrepresented information;
- g) No AEA in the Company.

3/ The licensing Committee has the right to remove an accredited company from the register; or temporary suspend any member on the register for a period deemed appropriate.

26. Obligation and Additional Requirements from licensed ESCOs

1/ A licensed company shall be obliged to inform EEA of any major change in the company.

2/ Such major changes may involve the company's ownership, financial status, Structure, and/or movement of its AEA, within a period of one month. Failure to do so may result in suspension of the company from the Register of the licensed ESCOs.