



GUIDELINES AND PROCEDURES FOR CERTIFICATION OF RENEWABLE ENERGY FOR ELECTRICITY GENERATION INSTALLATION WORKS PRACTITIONERS IN NGIERIA

1.0 Background

Prospective Renewable Energy Installation Work Practitioners wishing to be certified by NEMSA in Nigeria must prove their experience, skills and expertise to undertake Renewable Energy Installation Works for electricity generation projects. They must show full understanding of the range of Renewable Energy resources available and the economic issues surrounding renewable Energy within the environment. NEMSA's Renewable Energy Installation Works Certification covers the following:

- Installation of solar PV System (Off/On Grid) i.e. solar mini-grids, solar home systems, solar street lighting systems, etc.
- Installation of Wind Power System;
- Installation of Small Hydro Power System (10MW and below).

2.0 Competency Skills Requirements

Applicants for Renewable Energy Installation Works Certification should have sufficient technical skills and experience in the execution of the following installation and maintenance works:

- Ability to design a scalable renewable energy system in line with extant regulations and international best practices.
- Interpret design documents of renewable energy projects.
- Ability to construct the supporting structures
- Installation and configuration of Solar PV, Wind turbine, and small Hydro systems.
- Installation and configuration of Inverter and Battery Storage Systems.
- Installation of electrical protection systems (Earthing / Grounding / Lightning Arrestors).
- Installation of controls and automation system.
- Installation of standalone/Hybrid Systems.
- Ability to troubleshoot and maintain renewable energy systems.



3.0 Categorization of Renewable Energy Installation Works Certification

The Certification of Renewable Energy Installation Works Practitioner Certification is categorized into Corporate and Individual Certification.

3.1 Corporate Certification

Corporate Certification is for any registered business or limited liability company whose Chief Executive / Managing Director / Chairman or other Directors are not Engineers / Technologists. In order for such organizations to undertake renewable electrical installation contracting works in Nigeria, they are required under the law to engage the services of an experienced and qualified Engineer / Technologist as their technical staff who shall be responsible for the execution / supervision of renewable energy electrical installation works / projects executed by the company. The certified corporate company's Engineer / Technologist shall undergo the certification examination / interview to ascertain his / her qualifications, technical skills and competence in the field of renewable electrical installation works.

Under this provision, the corporate certificate to be issued to any successful candidate(s) shall be endorsed only for the company's use. The corporate certificate has a validity period of two years which is renewable for another two years providing the company's Engineer / Technologist remains in the service of the organization.

3.2 Individual Certification

This is divided into two (2) categories as highlighted hereunder:

- (i) Category I for Engineer/Technologist
- (ii) Category II for Technician/Craftsmen

3.2.1 Scope of Works

A. Category I (Engineers/Technologist)

All installation works outline in Category II in addition to the following:



- i. Design, construction and installation of Renewable Energy System (Off/On-Grid, & Mini Grid).
- ii. Design, construction and installation of hybrid systems
- iii. Design and installation of electrical protection (Earthing / Grounding / Lightning Arrestors) systems.
- iv. Design and installation of control and automation systems (particularly in the case of grid connected systems).
- v. Installation and configuration of Renewable Energy Systems.

NOTE: The scope of work for category I and corporate certification are the same.

B. Category II

- i. Installation of renewable energy street lighting systems.
- ii. Installation of renewable energy powered borehole systems.
- iii. Installation renewable energy heating systems.
- iv. Installation of renewable energy home systems.
- v. Installation of Inverter and Battery Storage Systems.
- vi. Installation of controls and automation system.
- vii. Ability to troubleshoot and maintain renewable energy systems;
- viii. Knowledge and interpretation of renewable energy projects design.
- ix. Knowledge and interpretation of extant renewable energy regulations and standards.

3.2.2 Eligibility Requirements

A. Category I

- (i) Minimum of B.Eng / B.Sc / HND / Full City & Guild of London in Electrical / Electronic Engineering, Mechanical Engineering, Chemical Engineering, Civil Engineering, Physics / Physics Electronics, Instrumentation etc.
- (ii) Evidence of registration with relevant professional bodies will be an added advantage.



- (iii) The candidate shall have evidence of proven ability and at least five (5) years of practical working experience on renewable energy installation works.
- (iv) Evidence of past executed renewable energy project which should cut across Energy Management, Energy Audit, Energy Efficiency, Solar PV configuration and Installation, Solar Hybrid Installations, Mini-Grid Installation, Battery Storage Design, System Controllers, Inverter Installations, Instrumentation etc.
- (v) Completion of any of the under-listed training courses on Renewable Energy systems from a recognized training institute will be an added advantage:
 - a) Solar Mini-Grid Design and Installation.
 - b) Solar PV System Design and Installation.
 - c) Small Hydropower Design and Installation.
 - d) Wind turbine Design and Installation.
 - e) Energy Management & Audit.
 - f) Power Backup Design and Installation.

B. Category II

- (i) Minimum of WAEC / SSCE, NABTEB, OND. Technical Training Certificate on renewable energy installation from any recognized / approved Institution will be an added advantage.
- (ii) The candidate shall have evidence of proven ability and at least three (3) years of practical working experience on renewable energy installation works/projects.
- (iii) Evidence of past executed renewable energy project which should cut across Energy Management, Energy Audit, Energy Efficiency, Solar PV configuration and Installation, Solar Hybrid Installations, Mini-Grid Installation, Battery Storage Design, System Controllers, Inverter Installations, Instrumentation etc.
- (v) Completion of any of the under-listed training courses on Renewable Energy systems from a recognized training institute will be an added advantage:
 - (a) Solar Mini-Grid Design and Installation.
 - (b) Solar PV System Design and Installation.



- (c) Small Hydropower Design and Installation.
- (d) Wind turbine Design and Installation.
- (e) Energy Management & Audit.
- (f) Power Backup Design and Installation.

4.0 Fees Payable for the Certification and Renewal

Category	Certification Fee (N)	Renewal Fee (N)
Corporate	50,000.00	25,000.00
Category I	50,000.00	15,000.00
Category II	35,000.00	10,000.00

NOTE:

- i. The corporate certificate is valid for a period of two years and renewable every year.
- ii. The individual category certificate is valid for a period of one year and renewable every year.

5.0. Procedure for Registration

Please visit the NEMSA website: www.nemsa.gov.ng for registration procedure.

5.1 Timeline for Registration

- i. Submission of completed application form and payment of processing fee shall not be later than four days prior to the examination
- ii. Notification of examination result shall be through candidate's e-mail address/text message and not later than two (2) weeks after the conduct of the examination/interview exercise
- iii. Issuance of competency certificates to successful candidates shall not be later than three (3) weeks after payment of certification fees is received at the Headquarters.