

NATIONAL ENERGY AUTHORITY

Papua New Guinea's Independent Regulator
of the Electricity and Gas Industry of Energy Sector

Guidelines for Electrician's License

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Harnessing Energy for Sustainable Development

NATIONAL ENERGY AUTHORITY

Guidelines for Electricians License



Revision Status Tracker

As necessary, authorized revisions will be issued to all users of the document. Revisions shall take the form of replacement or additional pages. Upon receipt, revision pages are to be incorporated in this document and all superseded pages removed.

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1. Introduction

Purpose: This information is a standard guide provided for electrical industry professionals seeking permit or license to conduct electrical work in PNG. National Energy Authority (NEA) now performs the technical regulatory functions under the NEA (Amendment) Act 2021. The Authority regulates both the Energy and Electricity Supply Services including the downstream gas industry. One of the core functions is the Electricians Licensing. The mandate of NEA as specified in Section 105 of the NEA Act is to; administer license processing of all electricians, electrical installation inspectors and electrical contractors in PNG, coordinate and conduct electrical license industries.

Scope: These guidelines apply to all electrical trade persons and electrical engineers seeking to obtain a PNG electrician's license. They cover the requirements for education, apprenticeship, work experience, application, compliance, and enforcement.

Background: Electricians are required to be licensed by the National Energy Authority (NEA) as mandated by Section 105 of NEA Act 2021 for several important reasons, each contributing to public safety, quality assurance, and regulatory compliance within the Standards of electrical industry.

Licensing requirements typically involve passing the Regulator's assessments that assess an electrician's understanding of electrical theory, safety protocols, Electrical Standards, and industry best practices. This ensures that licensed electricians possess the necessary knowledge and skills to perform electrical work safely and effectively.

Electrical work, if done incorrectly, can pose significant safety hazards such as electrical shocks, fires, and even fatalities. Licensed electricians are trained to adhere to strict safety standards, minimizing the risk of accidents and ensuring that electrical installations and repairs meet safety regulations.

Legal Basis: This Guideline is issued in accordance with the Division 5, Section 105 of the *National Energy Authority Act 2021* and is enforced by the Regulator.

2. Definitions

For the purposes of this guideline, the definitions below shall apply:

TERM	MEANING
Apprentice	Is a student and professional who spends at least four (4) years developing the skills necessary and work under supervision of the licensed electrician to work as an independent electrician.
Apprenticeship	Registered Electrician training programs that offer the opportunity for the apprentice to develop abilities in performing electrical work.
Department of Higher Education Research, Science and Technology (DHERST)	Education Authority responsible for approving and registers all apprenticeship program, technical education, and colleges in PNG.
Electrician	Is a skilled tradesperson who specializes in Electrical wiring, Installation and Maintenance and repair of electrical systems.
Electrician's Licence Assessments	A sets of assessments set by the Regulator for the eligible candidates to pass and become competent electrician.
National Apprenticeship and Trade Testing Board (NATTB)	The National Apprenticeship and Trade Testing Board is a statutory body set up under an Act of Parliament to certify trade personnel in Papua New Guinea (PNG).
National Institute of Standards and Industrial Technology (NISIT)	The NISIT is the National Standards Body responsible for overseeing all standardization, quality assurance and conformity assessment activities in Papua New Guinea.
Regulator	National Energy Authority (NEA) is the regulator and performs the technical regulatory functions under the <i>NEA Act 2021</i> .
Work Permit	Is an official document that is issued by PNG Department of Labour and Industrial Relations, which authorizes the non- PNG citizen to work in PNG with specific conditions.

3. Legal Framework

This guideline is a mandatory and governs by the following legislation.

- *National Energy Authority Act 2021*
- *NISIT Act 1993*
- National Energy Policy 2017-2027
- *PNG Employment Act 1978*
- *Industrial Safety, Health, and Welfare Act 1961*
- *Electricity Industry Act 2006*; and
- Other relevant legislation.

4. Licensing Requirements

All electrical work performed in PNG requires a license issued by the Regulator.

- A. Regulator may issue an electrician's licence to a natural person who has attained the age of 19 years and above, and who-
1. Has completed an apprenticeship or Diploma in a trade of electrical mechanic, electrical fitter and mechanic or electrical fitter in Papua New Guinea, Australia or New Zealand and is the holder of a certificate issued by National Apprenticeship Trade Testing Board (NATTB) in Papua New Guinea, or Approved trade testing board in Australia and New Zealand certifying that he/she has completed an electrical fitters' and mechanics' trade course conducted by approved technical college, or some other approved certificate in the electrical trade issued by an approved technical education authority registered under Department of Higher Education Research Science and Technology (DHERST), and must have at least 288 hours of classroom and lab-based training, and cumulative of at least (4 years) of on-site experience supervised by a licensed electrician.
 2. Hold an electrical engineering degree from an accredited university or college and possess a minimum of five (5) years of work experience as a registered electrical engineer and must be engaged in electrical wiring and installation works.
 3. Meeting all the above requirements and has no criminal record.

B. OTHER NATIONALITIES

Under Section105 of the *NEA Act* (Licensing of Electrical Contractors, Electrical Inspectors and Electricians) the Regulator must license all electricians to conduct Electrical work in PNG.

1. Holders of Australia and New Zealand Electrician's License may apply for a PNG Electrician's License, ensuring it is consistent with the condition of the PNG Work Permit issued by PNG Department of Labor and Industrial Relations, upon payment of the fee prescribed in the *NEA Act*.
2. Other nationalities would be required to sit for the Electricians Licensing Examination to qualify as per the Standards (AS/NZS 3000 Wiring Rules and AS/NZS 3008 Cable Selection). These standards can be purchased from National Institute of Standards & Industrial Technology (NISIT), NEA and online on Standards Council Australia.
3. It is required for an Applicant to hold a valid work permit.

5. How to Become a Certified Electrician

5.1 Obtain the necessary work experience

To become a certified electrician in PNG, it requires about four (4) years of continuous on-site electrical work experience for electrical trade personnel and five (5) years for Electrical Engineers involved in electrical wiring and installation work.

5.2 Apply for NEA Electrician's Licence Assessment

Having met the necessary requirements, fill out an application form (Appendix 1) to take the PNG General electrician's license assessments. There is a prescribed application processing fee. The Application must include:

- Form (1) filled.
- Current Curriculum Vitae (CV)
- Copy of the Qualification certificates (Certified by a Commissioner of Oaths).
- Copy of the Trade Test (level 1, level 2, & level 3) Certificates and Transcript from NATTB.
- Reference or Confirmation Letter from the Institution where Apprenticeship was completed.
- Work References from previous employer.
- Copy of a valid PNG Police Clearance Certificate obtained in the last six months.
- Copy of at least one Valid PNG Government issued ID (Example: NID, PNG Driver's license, PNG Passport, etc.)
- Copy of a 'valid Work Permit' for non- citizen's applicant.
- Two original Passport size photos
- Copy of the payment receipt of the application processing fee paid to NEA's nominated account specified in the invoice.

Once the application is submitted and processed, applicant will be contacted on their eligibility to sit for the examination as per the electrician licensing flowchart (Appendix 3).

5.3 Electrician Licence Assessment

The Electricians' Licensing Assessment is conducted as per Regulator's gazettal notice or at any other times at the discretion of the Regulator. Eligible candidates will have to pass the electrician's licence assessment set by the Regulator. There are three sets of assessments:

A. Electrician's Licence Examination: This examination consists of three (3) papers at duration determined by the Regulator:

1. Theory - Tests General Electrical knowledge for applied electricity.
2. Open Book- Tests Practical knowledge.
3. Closed Book- Tests retained knowledge of electrical wiring system.

B. Competency Assessment:

This assessment is to test the competency of Licensed electricians prior to renewing their licences. This consists of a Practical Exam to be set as determined by the Regulator. Examples of tests to be conducted are wiring a meter box and switchboard, Multiple Earthed Neutral (MEN) testing an installation and safely disconnect and reconnect a piece of electrical equipment.

- All eligible Electrical Engineers DO NOT sit the Theory paper of electrician's licence examination.

5. How to Become a Certified Electrician cont.

- Fees: Prescribed in the NEA (Amendment) Act 2023. (Appendix 2)
- Examination Reference Books:

NEA will be conducting Electrical licence Examinations/assessment based on the latest edition of Standards (AS/NZS 3000 Wiring Rules and AS/NZS 3008.1.1 Cable Selection).

5.4. Obtain your Electrician Licence and Certificate

In accordance with Section 105 (1) of the *NEA Act 2021*, Electrician's licence would be issued by the National Energy Authority (NEA) through the Minister for Energy. To obtain the licence, the following requirements should be met by the candidate:

- Pass the electrician's licence assessment by scoring 75 percent and above for each section of the assessment.
- Make payment of Licence application fee prescribed in the *NEA Act*.

5.5 Term of license and renewal

- Each of the licence must be renewed or reinstated as specified by the Regulator.
- Electrician's licence renewal fee prescribed in the *NEA Act*.

6. License and Permit

The Regulator may issue the following classes of licences and permits to an Electrical Trade person:

6.1 General Electrician Licence

General Electrician licence authorises the holder to perform all electrical wiring and Installation work at Low Voltage (LV) level.

6.2 Limited Electrician License

1) **Expatriates Electrician License** A permit Electrician Licence (Limited) authorises the holder to perform electrical work stated in the permit in accordance with the conditions about work and time stated in the Work Permit.

2) **Low Voltage (ELV) worker (Electrician) or Refrigeration-technician.** A permit Electrician Licence (Limited) also authorises the holder to perform Low Voltage (LV) electrical work from ≤ 50 V AC and ≤ 120 V ripple free DC.

6.3 High Voltage Permit

(HV permit guidelines to be developed by the Regulator).

6.4 Solar Technician Certificate

Licensing Guidelines to be developed by the Regulator.

6.5 Marine Electrician Certificate

Licensing Guidelines to be developed by the Regulator.

6.6 Electrical Inspector License

Licensing Guidelines to be developed by the Regulator.

7. Coaching for Electrician's License Examination

NEA provides coaching to the eligible candidates as and when before they sit for the license examination. It is optional for the participants, and it is held before the examination under Regulator's discretion. Following are the eligibility requirements for attending coaching:

- Must be qualified to take the Electrician's licence examination.
- Make payment of coaching fee as prescribed in the *NEA (Amendment) Act 2023*.

8. Compliance and Enforcement

8.1 Compliance

- All electrical wiring and installation work must comply with the Standards (AS/NZS 3000 Wiring Rule and AS/NZS 3008.1.1 Cable Selection) and the PNG Grid Code.
- All electrical wiring and installation work must be done by a person certified by the Regulator.
- The certified electricians must have in their possession the latest edition of standards AS/NZS 3000 Wiring Rules and Nzs 3008.1.1 Cable Selection).
- Certified electricians must carry valid electrician's licence.
- The licence holder is required not to involve in any fraudulent activities.
- The licence holder is expected to hold a zero criminal record.

8.2 Suspension and Termination of the electrician's license

The conditions for the termination or suspension of an electrician's licence can vary depending on the jurisdiction of the Regulator. If the licence is suspended, licensee may be prohibited from performing electrical work until the suspension is lifted. On the other hand, if the licence is terminated, or the licence is revoked, the Holder is then required to reapply to meet all the licensing requirements to regain the licence. Following activities may lead to termination/suspension of the licences:

1. **Violation of the Regulations:** Failing to comply with the Regulation, Grid code and the Safety Standards.
2. **Unethical conduct:** Engaging in fraudulent activities.
3. **Incompetence:** Demonstrating a lack of necessary skills and knowledge to perform electrical work safely and effectively
4. **Criminal activity:** Being convicted of crimes.
5. **Failure to Renew Licence:** Conducting electrical wiring and installation work without renewing the expired licence.

8.3 Appeals Process

Electricians and Stakeholders have right to appeal the Regulator's decisions through a formal appeals process overseen by the Regulator.

9. Benefits of Getting an Electrician License

There are many benefits to pursuing PNG electrician professional licensing:

- Most importantly, it is required by the *NEA Act 2021* in PNG to be certified through the state to legally conduct electrical work.
- Having a certification protects your company and customers in terms of safety and technical requirements.
- Licensed electricians in PNG have high earnings potential, depending on their skill level and area of expertise.
- A trade certification is proof of your experience and skill.
- It gives you a competitive advantage in the job market.
- Become competent in performing electrical work.

10. Review and Update

This Guideline will maintain its reviews to ensure it is updated to suit the good regulatory practices. Any amendments to this guideline must be approved by the Regulator following a public consultation process to ensure transparency and stakeholder participation.

11. Appendices



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FORM 1

APPLICATION FOR ELECTRICIAN'S LICENSE EXAMINATION

This application is subject to the provisions of the National Energy Authority Act 2021 under Section 105 (Licensing of Electrical Contractors and Electricians).

A. PERSONAL DETAILS

Name:		Date of Birth:		Insert your photo here
Employer:		Location:		
Address:				
Office Phone #:		Mobile Phone #:	Email Address:	

Insert your photo here

B. TRADE CERTIFICATION

Are you holder of Electrical Trade qualifications?		Y		If yes give details
		N		
Trade qualification number:		Date obtained:		
Institution issuing the qualification:		Attach copy		
Have you earlier attempted similar examination?		Yes		If yes give details
		No		
When was the last exam you sat?		Where did you sit for it?		

C. SUPPORTING DOCUMENTS – CHECK LIST

i. Curriculum Vitae	Provided?	Yes	
ii. Certificates, Qualifications, References	Provided?	Yes	
iii. PNG Police Clearance Certificate – obtained in the last six months	Provided?	Yes	
iv. 2x Passport size photos	Provided?	Yes	
v. Valid ID: Passport, Driver's License or National Identification Card (NID)	Provided?	Yes	
		No	

Signature of the applicant: _____ Date: _____

All Qualifications are to be **Certified** by a **Commissioner for Oaths**, as being **THE TRUE COPY** of the Original, before being submitted with the application form.

All applications to attach a receipt of K200 application fee paid to National Energy Authority's Bank account: **National Energy Authority – R/A, Account # 0000325053, Port Moresby, BSP:088, Bank South Pacific.**

A completed Application Form can be forwarded to the Managing Director (MD), National Energy Authority P.O. BOX 494, **WAIGANI**, NCD, PNG, or through email to Licensing@nea.gov.pg.

v3_Oct2024

National Energy Authority (Amendment)

SCHEDULE 1. - FEES.

Sec.105.

Sch.1.1 - Electrical Contractor's Licences.

Application.	Fee (PGK).
Application for licence by a National Contractor.	2,500.00
Application for licence by a Foreign Contractor.	5,000.00
Application for renewal of licence.	750.00
Application for duplicate licence.	75.00

Sch.1.2 - Electrician's Licence.

Application.	Fee (PGK).
Application for licence.	200.00
Application for duplicate licence.	100.00

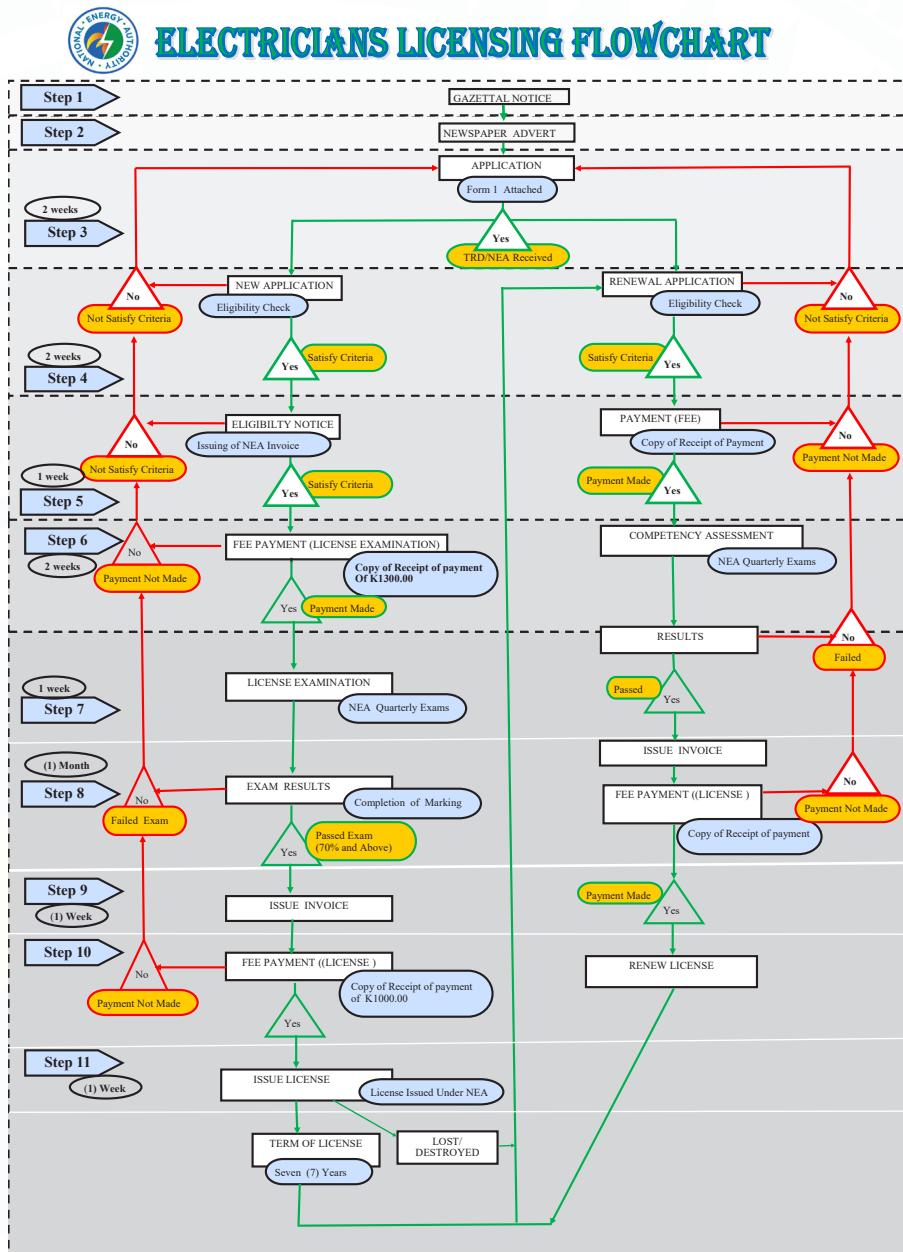
Sch.1.3 - Electrician's Licence Examination.

Application.	Fee (PGK).
Application for permission to attend complete examination.	1,300.00
Application for permission to attend written section only.	200.00
Application for permission to attend practical section only.	1,000.00
Application for permission to attend oral section only.	100.00
Application for re-marking of written examination paper.	20.00

Sch.1.4 - Electrician's Licence without Examination.

Application.	Fee (PGK).
Application for licence by a National with current AS/NZS Electrical Licence.	1,000.00
Application for licence by an Expatriate with current AS/NZS Electrical Licence.	2,000.00

11. Appendices cont.



Contact Information

Office Address

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Section 58 Allotment 3
WAIGANI DRIVE, Port Moresby
Papua New Guinea

Postal Address

PO Box 494, VISION CITY 131, NCD

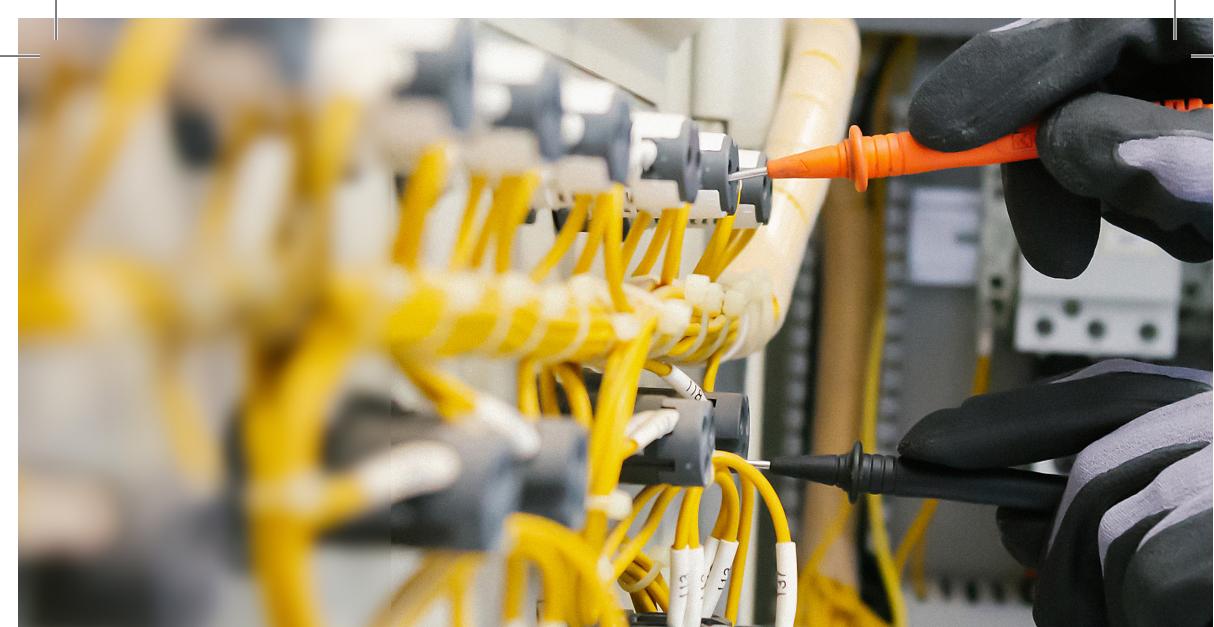
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