



NATIONAL  
SUPERVISION POLICY GUIDELINE  
FOR  
ELECTRICITY SUPPLY INDUSTRY  
APPRENTICESHIPS



**ElectroComms and EnergyUtilities Qualifications Standards**  
**Body of Australia Ltd, trading as EE-Oz Training Standards**

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# **ELECTRICITY SUPPLY INDUSTRY (ESI) SUPERVISION POLICY GUIDELINE FOR ESI LINEWORKER APPRENTICESHIP**

## **The Purpose of the Guideline**

This Supervision Policy Guideline has been produced, as advisory information for industry stakeholders, practitioners, and workers who are involved in providing direct or indirect supervision to Electricity Supply Industry apprentices<sup>1</sup> in training. It covers a number of Electricity Supply Industry apprenticeships, namely that of Lineworker vocations – Distribution and Transmission, which are included in the nationally endorsed Electricity Supply Industry – Transmission and Distribution Training Package UTT99. In particular however, it specifically deals with the Electricity Supply Industry apprentice Lineworkers as it pertains to electrical regulation, where applicable.

It should be acknowledged that this Guide was developed through extensive consultations with key stakeholders. It is a first version release and, will thus be amended from time to time to take account of changes in line with legislation, regulations, standards, technology, and/or key stakeholder views. Feedback on suggested changes is welcomed and, should be directed to EE-Oz Training Standards for re-submission to key stakeholders.

This Supervision Policy Guideline also augments the “*National Code of Good Practice for New Apprenticeships*” released December 2000, by the Commonwealth Government. It has been developed to assist both parties (employers and apprentices) entering into a “*Training Contract/Contract of Training*” with a clear understanding of each other’s obligations and expectations. A copy of the code is available via the New Apprenticeship website or by phone: [www.newapprenticeships.gov.au](http://www.newapprenticeships.gov.au) or 1800 639 629.

The Policy Guideline presents a model of best practice supervision and suggested safe work practice for Supervisors responsible for supervising apprentices during their period of competency development. Importantly, it is hoped that in publishing this policy guide more sound supervision and safe work practices will emerge, leading to reductions in danger to life/property and, the development of quality tradespersons for the industry.

***Disclaimer:*** *It should be noted that this Policy Guideline does not in anyway replace any Commonwealth, State or Territory legislative and/or regulatory requirements; and does not override any duty of care responsibilities, codes of practice and other relevant codes or regulations pertaining to the respective parties.*

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<sup>1</sup> Apprentice(s) includes the term trainee(s) or learner(s) – Apprenticeship also includes Traineeship

**Definitions: (In the context of this Policy Guide the following terms mean)*****Competent Assistant/Safety Observer means a person who:***

- (a) is appropriately skilled to the same level to assist in performing electrical work; and
- (b) is appropriately skilled to the same level to rescue and provide resuscitation to a person who has stopped breathing or is unconscious because of electrical shock; and
- (c) has displayed an acceptable knowledge for the type of work to be performed of life saving skills (typically rescue and resuscitation) as well as those required for the work being performed to the satisfaction of the employer; and
- (d) is appropriately skilled to the same level to rescue and/or provide CPR first aid to a person who has sustained an injury as a result of an accident caused by an electrical shock; and
- (e) is skilled to the same level and in the sole task of observing the work movements of others in a hazardous environment and situation and, is competent in the skill being observed.

***Complexity***

Means control circuitry, which is more complex than normal power circuits. For example installing or maintaining control equipment in a hazardous environment/area is considered more complex, because of the environmental issues associated with the work, than installing or maintaining power circuits in a domestic setting.

***Live Work***

Live Work refers to work on energised electrical installations, circuits, apparatus, and/or accessories. There is a general requirement that such work should not be performed without due regard for any prevailing legal requirement, standards or codes of practice. Reference should initially be made to the Australian Standard, *AS/NZ 4836 – Safe Working on low voltage electrical installations* in relation to Live Work. Live work may be governed by respective State or Territory legislation, regulations, codes of practice or other relevant regulation or standard/code, particularly in relation to Linework. Related information should be sought from respective State or Territory Regulatory Authorities and followed where applicable.

As an example, employers in NSW are required to take all reasonable steps to ensure that electrical installation work is not carried out whilst circuits and apparatus are energised unless specific safe measures of work are implemented – eg O&HS NSW Regulation Clause 207, Part 2.

***Standard of work***

All electrical work being carried out must ensure compliance with AS/NZS 3000:2000 Wiring Rules and/or other relevant standards.

***Supervisor***

Supervisor means a person with related technical competence, who is charged with the responsibility of assisting, whether directly or indirectly, an Apprentice registered under a “*Training Agreement/Contract of Training*” in their competency development. Supervisors may also be called apprentice masters, mentors, coaches, or Tradesperson.

### ***Supervision of apprentice***

Supervision means the level and pattern of control exercised over an apprentice when allocating work to be performed.

### ***Testing for System integrity and operability - energised***

For the purposes of this Guideline *Testing for System integrity and operability* refers only to work that relates to **testing and diagnosing** installations, equipment or articles, that are energised at *voltage* in excess of 50V a.c. or 120V ripple free d.c.

### ***Voltage (reference: Standards Australia – AS/NZ 3000:2000)***

Means as defined in AS/NZ 3000 –

- ***Extra low voltage:*** Extra-low voltage not exceeding 50V a.c. or 120V ripple-free d.c.
- ***Low Voltage:*** Low voltage exceeding *extra-low voltage*, but not exceeding 1,000V a.c. or 1,500V d.c.
- ***High Voltage:*** Exceeding *low voltage*

### ***Working at heights and confined space***

Means working at heights or in confined spaces that require a higher degree of supervision compared to open obstruction free work areas.

## **Background**

Entry into Lineworker Trade vocations in the Electricity Supply Industry is typically through State/Territory approved Apprenticeships. Electricity Supply Industry Apprenticeships generally take four years to complete and utilise an on-and-off-the-job training regime to developing an apprentice's full range of competencies. The appropriate level of supervision that should be applied to an apprentice during the on-the-job component should be applied with respect to the welfare of the apprentice in terms of safety and competency development.

The well-recognised tapering (direct-general-broad) pattern of supervision, which includes instructions, dispensed to an apprentice throughout their apprenticeship is a proven model in developing a competent Tradesperson.

Determining the appropriate level of supervision to apply is generally dependent on the balance between assuring safety of the apprentice and the work to be carried out and the experience of the apprentice. The level and pattern of supervision to be applied is not one that is time based but takes into account a range of factors such as:

- knowledge and skills (on-and off-the-job technical training/learning) attained, and
- previous experience/learning and training/practice and repetition the apprentice has had relative to each particular task, skill or work function to be performed.

## **Policy Guideline for Supervision Practice**

During the course of an apprenticeship it would be expected that an apprentice would have worked across a *representative range of equipment<sup>2</sup>, consistently* and to *requirements* in

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<sup>2</sup> *Representative range of equipment, consistently* and to *requirements* is defined in the Electricity Supply Industry Transmission & Distribution Training Package. This information is detailed in the Evidence Guide of the Package and may be expanded on in more detail, in related Work Performance Modules (WPMs), where appropriate.

the industry with supervision ranging from direct to general to broad. They will also, have concurrently attained the relevant underpinning knowledge and skills to support workplace performance.

The apprentice having worked under these conditions would have the opportunity to develop the relevant competencies and, accordingly been certified as a Tradesperson by a Registered Training Organisation (RTO). This should assure prospective employers that as a Tradesperson, they have attained sufficient depth and breadth to be able to perform across a variety of contexts, and respond and manage a number of contingencies not previously undertaken.

This policy guideline puts forward a suggested best practice model of supervision that may be applied to apprentices in the Electricity Supply Industry, with particular emphasis on the “*Lineworker Apprenticeship*” given its interrelationship with Electrical Licensing and/or registration requirements that may apply in respective State/Territory jurisdictions.

Supervisors can use it as a guide when planning their supervision responsibilities and allocating a range of work functions and activities in the workplace to apprentices.

In providing advice relating to the supervision of apprentices, it is suggested that an entity/business or person employing an apprentice should:

- take all reasonable steps to ensure supervision is carried out by a person that is appropriately licensed (where appropriate) and competent to carry out the work in question unsupervised;
- take into consideration (see below) issues related to the use of apprentices as Competence Assistants/Safety Observers, prevailing legislation, the obligations of employers supervising apprentices and, where applicable, Regulator Requirements for Electrical and Lineworker Vocations, Testing for System integrity and operability whilst energised, and Working near live parts; and
- take into consideration the kind of work being undertaken, particularly where regulated (e.g. electrical) work applies and especially with regard to whether live parts are being tested or are in the vicinity of the work area/environment; and
- have regard to the level of competence of the apprentice being supervised for the particular task, skill or activity to be performed, with the goal of supervision progressively diminishing to broad in the fourth stage – with the exception of “first time” work and testing.

In determining the level and pattern of supervision to discharge to an apprentice in relation to the work whilst in training several factors are taken into account. These are knowledge attained and, previous experience and training the apprentice has had relative to each particular task, skill, or work function to be performed. The pattern of supervision will typically range from *direct*, *general* to *broad* (see attached Supervision Policy Guideline Table for detailed information on each). Time served is not a determinate but a factor for consideration.

### **Competent Assistant/Safety Observer**

Apprentices who are new entrants into the industry and who have not acquired relevant skills and knowledge are not to be used as Competent Assistant/Safety Observers in their initial period of training as per Commonwealth, State or Territory legislative or regulatory requirements. Thereafter, they may be appropriately utilised as a competent

assistant/safety observers, but only if they have been suitably trained and have attained an adequate and equivalent level of knowledge and skill as required by the work to be performed and any legislation and/or prevailing industry guideline/s.

### **Legislation**

This guideline should be read in conjunction with any relevant Commonwealth, State or Territory legislative requirements. It does not replace or override any obligations whatsoever, whether legislative, under duty of care, or other dominant rulings that apply to the respective parties.

### **Obligations of employers supervising apprentices**

Employers are responsible for supervising the development of an Apprentice. In discharging supervision, Supervisors should have the appropriate and full range of technical competencies for given work. Additionally they should have an understanding of supervision related to apprentices, such that they are familiar with the level of supervision that should be applied for the given work and how this should be varied dependent upon the knowledge, skill, and experience of the apprentice.

The following information is to be used as a guide only.

1. A “*person in training*” under a “*Training Agreement/Contract of Training*” is a person who is undertaking, but has not completed:
  - (a) an approved apprenticeship and, for electrical licensed/registration areas, a relevant Lineworker apprenticeship; and/or
  - (b) a training program approved by the relevant State/Territory Training Authority and, in relation to Lineworker licensing/registration with the respective Electrical Regulator
2. Employers should take all reasonable steps to ensure that “*persons in training*”:
  - (a) are not placed in the immediate vicinity of an exposed live *high voltage* conductor or apparatus, and/or
  - (b) are not required to work where there is a risk of coming into contact with an exposed live *low voltage* conductor or apparatus
3. Also, employers should prohibit “*persons in training*” from working at a place where there is a risk of contact with exposed live conductors or apparatus unless the “*persons in training*” have been adequately trained and skilled in all the prevailing safe working procedures for the work activity and work environment
4. Employers should take all reasonable steps to ensure that “*persons in training*” who are required to perform electrical work are appropriately supervised by a licensed electrical worker able to perform the work, to take all reasonable steps to ensure electrical safety at all times
5. The level of supervision to be discharged to apprentices should be in accordance with any prevailing regulatory requirement and, appropriate for:
  - (a) the type of regulatory (e.g. electrical) work performed; and
  - (b) the adequacy of the “*person in training*”; and
  - (c) an assessment to confirm relevant knowledge, skill and experience of the “*person in training*” is evident

6. Apprentices shall be advised and instructed in CPR and rescue techniques; and the correct use of personnel protective equipment (PPE), safety equipment; and testing equipment. Appropriate use of protective work clothing, insulated work footwear (sole), safety glasses and other safety essentials are a necessary part of accident prevention practices and also should be advised. Included are insulating gloves, mats, covers, and similar safety equipment, where appropriate, CPR, recovery apparatus and; correct use of testing equipment/instruments.
7. Employers/supervisors should take all reasonable steps to ensure apprentices record their workplace activities using an approved workplace recording system (logbook or Profiling data entry cards) that covers: work exposure/practice undertaken against industry standards, the level of supervision provided, equipment worked on, dates, and other relevant important information.

### ***Regulator Requirements for Electrical Vocations***

It is a common requirement of electrical regulatory authorities in each State/Territory that all electrical work be performed in accordance with the respective regulations, codes of practice and/or AS/NZ 3000:2000. A person carrying out unsupervised electrical work is to be appropriately licensed/registered. With the relevant licence/registration a person may carry out a range of work without supervision. Apprentices however, provided they are engaged under a “*Contract of Training*” and are appropriately supervised are generally permitted to perform relevant electrical work.

**The supervising electrical worker is obligated in taking all reasonable steps to ensure that all electrical work is checked, tested and complies with appropriate Acts, Regulations, Codes of Practice, and Australian Standards.**

Employers of electrical workers and electrical workers themselves, (which includes apprentices/trainees) must be aware of, and comply with, the requirements of any local State/Territory Electricity Act, local supply authority requirements, Common Law requirements (duty of care), Codes of practice, permit systems, and/or any other relevant code or regulation. Information regarding applicable requirements should, in the first instance, be directed to such bodies.

### ***Testing for System integrity and operability whilst energised***

*Testing for System integrity and operability* whilst installations, equipment or articles are energised should not be carried out by apprentices. Where absolutely necessary, it must be undertaken under the strictest of direct supervision and according to any prevailing regulation or code/standard. Notwithstanding, any such work to be performed should always include:

- compliance with any legislation, regulation(s), standard(s) or code(s) of practice
- the establishment and use of safe systems of work, including safe work practices<sup>3</sup>
- the development and use of a written risk assessment, and Job Safety Analysis (JSA)
- use of appropriate tools and equipment, and
- work processes are in place to assure safety of the installation, personnel, and property.

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<sup>3</sup> Safe Working Practices Reference document is AS/NZ 4836 – Safe Working on low voltage electrical installations. It should be noted that Codes of Practices may also be in force covering the same area. Advice should be sought from relevant authorities.

### **Working near live parts**

Apprentices **should not**, in their training program work near or in the vicinity of exposed live parts consistent with the following:

- work in the vicinity of exposed live *high voltage* conductors, apparatus and/or accessories outside their normal scope of work and stage of training as a Lineworker, or
- work where there is a risk of coming into contact with an exposed live *low voltage* conductor, apparatus, and/or accessories outside their normal scope of work and stage of training as a Lineworker, and
- then only, according to legislation, regulation(s), standard(s) or code(s) of practice; including *AS/NZ 4836 – Safe Working on low voltage electrical installations*, and with the appropriate level of skills held and relevant supervision applied for the particular work, and
- “*Testing for System integrity and operability – energised*” as defined and outlined in this document.

The attached tables of “**Supervision Policy Guideline Table for Electricity Supply Industry Apprentices**” (three attachments provided) are proffered for use as a guideline to supplement and further clarify the suggested supervision requirements included in this guide. The Supervision Table(s) should be read in conjunction with this part of the Supervision Policy Guideline. It should be acknowledged that the level of supervision will vary dependent upon the knowledge, and level of skill and experience of the apprentice, as pointed out above. The decision is a matter for the Supervisor to determine on a case-by-case basis.

The degree of supervision, *direct*, *general* or *broad* to discharge requires continual assessment of an apprentice’s knowledge, skill and experience relative to the nature of the task, skill or activity to be undertaken. The degree of supervision may vary from *direct* to *general*, to *broad*, depending on the type of work being carried out on a particular occasion and a particular point in time. Supervisors need to exercise appropriate duty of care and judgement in this regard, and take all reasonable steps to ensure that such judgements are not made solely on the bases of the apprentice’s, time served.

It should be noted that Electrical Regulators in relation to electrical licensing/registration generally consider that there are two levels of supervision applying to apprenticeship training when performing electrical work – *direct* or *indirect*. It is submitted that *General* and *Broad* supervision combined corresponds with the second level of supervision (*indirect*) generally recognised by Regulators.

***With respect to electrical work, the respective supervising registered electrical worker is obligated in taking all reasonable steps to ensure that all electrical work is checked and tested and complies with the appropriate Acts, Regulations, Codes of Practice, and Australian Standards, particularly AS/NZS 3000:2000 Wiring Rules.***

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### **Attached, Supervision Policy Guideline Tables for ESI Apprentices**

#### **ATTACHMENT 1:**

SUPERVISION POLICY GUIDELINES FOR ESI LINeworker APPRENTICES/TRAINEES

## Attachment 1

**ELECTROCOMMS AND ENERGYUTILITIES  
QUALIFICATIONS STANDARDS BODY OF AUSTRALIA LTD**

**SUPERVISION POLICY GUIDELINES FOR ESI LINEWORKER  
APPRENTICES/TRAINEES**

The supervising electrical Lineworker is responsible for taking all reasonable steps to ensure that all electrical line work is checked, tested and complies with relevant Acts, Regulations, Codes of Practice, and Australian Standards.

Managers/supervisors are responsible for taking all reasonable steps to ensure that an apprentice's work activities during their tenure are such that they experience a suitable mix/range of work/activities that relate to the competencies associated with their training program. A holistic approach should be taken when allocating work/activities to the apprentice, and suitable arrangements, such as rotation, should be explored where a suitable range of work/activities cannot be provided.

This Supervision Policy Guideline Table, forms part of the Supervision Policy Guideline document. It should be read in conjunction with it. The Table below typifies the general pattern of Supervision anticipated for a range of work functions applying to a host of Electrotechnology Apprenticeships. The term "*Time Served*" is notional. Any decision to apply a specific level of Supervision should be based on technical on-and off-the-job knowledge and skills attained, and previous experience/learning, training/practice, and repetition the apprentice has had relative to each particular task/skill/work function to be performed. Where transition from one level of supervision to another is to occur it should only take place after relevant abilities and aptitude have been effectively verified.

Evidence from Industry suggests that there are three typical levels of supervision that are used in supervising apprentices. These are described hereunder.

**1. Direct/constant supervision**

This means the personal supervision of a worker - apprentice, at all times, on a direct and constant basis, within visual contact and/or earshot (audible range). Constant basis refers to the continuous supervision of tasks' being performed for the first time and until skill is demonstrated for the *complexity* of the task and *work environment*.

**2. General intermittent supervision**

This means the apprentice does not require constant attendance of the supervisor but requires personal contact with a licensed electrical worker on a recurrent (periodic) basis when working on electrical equipment. Periodic supervision means being under instruction and direction for tasks being formed with checks and test being made prior to commissioning and/or energising of circuit/s and/or apparatus/equipment.

**3. Broad supervision**

This means the apprentice/trainee does not require constant supervision but requires personal contact with a licensed electrical worker on at least a regular/occasional basis when working on electrical equipment. Occasional supervision means being under instruction and direction with checks being carried out on completion of multi-tasks and before energising of circuit/s and/or apparatus/equipment.

*Note: Supervision Practice - the goal of supervision should be to progressively diminish from direct to broad in the fourth stage/last six months – with the exception of “first time” work and testing.*

## GENERAL – NORMATIVE INFORMATION

### WORKING ON LOW VOLTAGE ELECTRICAL INSTALLATIONS

Type of Work	Apprentice/Trainee Typical Apprentice Stage	Supervision Required Powerline Worker
New Installations (not connected to electricity supply)	One Two Three Four/Final	Direct Direct Direct/General General
Alterations and Additions (existing installations)	One Two Three Four/Final	Direct Direct Direct Direct
Maintenance of Installations and Equipment	One Two Three Four/Final	Direct Direct Direct Direct
Workshop Tasks	One Two Three Four/Final	Direct Direct/General Direct/General General
Conducting Powerline Switching Operations ( <i>for Powerline workers</i> )	One Two Three Four/Final	Direct Direct Direct Direct
Testing for Network integrity and operability – <b>energised</b> ( <i>see definition and main document</i> )	Less than 6 months More than 6 months to 12 months More than 12 months to 2 years More than 2 years to 3 years More than 3 years to 4 years	* * Direct Direct Direct
Isolation of Network and Equipment to verify isolation from all sources of supply ( <i>proving de-energisation</i> <sup>4</sup> )	Less than 6 months More than 6 months to 12 months More than 12 months to 2 years More than 2 years to 3 years More than 3 years to 4 years	* * Direct Direct Direct

<sup>4</sup> Persons required to work in association with electrical equipment shall be competent in procedures providing de-energisation and in the use of relevant instruments.

**WORKING ON LOW VOLTAGE ELECTRICAL INSTALLATIONS**

Isolation of Network and Equipment/Isolation Work	One	*
	Two	Direct
	Three	Direct
	Four/Final	Direct

\* *Live work is not to be carried out.*

**NON – ELECTRICAL WORK**

Type of Work	Apprentice/Trainee Typical Apprentice Stage	Supervision Required Electricity Supply
New Installations	One	Direct
	Two	Direct/General
	Three	General
	Four/Final	General
Alterations and Additions (existing installations)	One	Direct
	Two	Direct
	Three	General
	Four/Final	General
Maintenance of Installations and Equipment	One	Direct
	Two	Direct
	Three	General
	Four/Final	General
Workshop Tasks	One	Direct
	Two	Direct/General
	Three	General
	Four/Final	General
Protecting the environment	One	Direct
	Two	Direct/General
	Three	General
	Four/Final	Broad
Documenting activities	One	Direct
	Two	Direct/General
	Three	General
	Four/Final	Broad
General tasks – housekeeping, transporting, etc.	One	Direct
	Two	Direct/General
	Three	General
	Four/Final	Broad

\*\*\* Types of work functions are mainly derived from the index of competencies used in the following National Training Packages and/or any successors:

- UTT98 ESI Transmission and Distribution National Training Package that make up Certificate III (Tradesperson) qualifications. Not all may apply, and will be dependent on the particular qualification the apprentice is developing their competency in.

**Note:** *Testing for System integrity and operability* whilst installations, equipment or articles are energised should not be carried out by apprentices. Where absolutely necessary, it must be undertaken under the strictest of direct supervision and according to any prevailing regulation or code/standard. Notwithstanding, any such work to be performed should always include:

- compliance with any legislation, regulation(s), standard(s) or code(s) of practice
- the establishment and use of safe systems of work, including safe work practices<sup>5</sup>
- the development and use of a written risk assessment, and Job Safety Analysis (JSA)
- use of appropriate tools and equipment, and
- work processes are in place to assure safety of the installation, personnel, and property.

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<sup>5</sup> Safe Working Practices Reference document is AS/NZ 4836 – Safe Working on low voltage electrical installations. It should be noted that Codes of Practices may also be in force covering the same area. Advice should be sought from relevant authorities.