

1. Module details

Module name

Install and terminate wiring systems (*Power and control – Low Voltage*) Work performance

Module duration

The time taken to complete this module will vary depending on the opportunities in the work place for student's to develop their skills and the method used to obtain evidence of competent performance. Where evidence is obtained through formalised assessment event(s) under simulated conditions it would normally take a student 4 hours to successfully complete the module.

Module code

NEWP105j v5

Discipline code

2. Module purpose

This module provides methods and criteria for gathering evidence that shows a person has achieved the levels of performance specified in Unit NES105jA Install and terminate wiring systems (power and control – Low Voltage)

3. Prerequisites

This module shall be undertaken in conjunction with modules that provide the knowledge and skills underpinning performance.

4. Relationship to competency standards

This module supports Unit NES105jA Install and terminate wiring systems (power and control – Low Voltage) of the Electrotechnology Competency Standard

ERAC¹ Essential Capabilities - alignment

The essential capabilities that apply in relation to this module, are:

21; 22; 29; 30; 33; 35; 40; 42; 43; 44; 45; 47; 48; 49; 50; 51.

The reference documents that have been used to affirm the alignment are:

1. *Competency Standard Units incorporating the essential capabilities required of a Licensed Electrician, and*
2. *Summary of learning strategies supporting the achievement of essential capabilities required of a Licensed Electrician:*

Both documents are available from the EE-Oz Training Standards (EEQSBA).

¹ ERAC - Electrical Regulatory Authorities Council. ERAC has established the specific requirements in relation electrical licensing for Electricians. This requirement is included in the ERAC enunciated policy of 1st July 2001 which incorporates the following; “*Essential Performance Capability Requirements for Electricians*” and “*Capstone Assessment Test*”. RTOs are to confirm the presence of the requirements for those undertaking an approved training program, within a National Training Package, that is intended to lead to an electrical licensed outcome. For further information refer to ERAC’s Policy.

5. Assessment strategy

Assessment methods

Evidence of competent performance may be gathered from real work activities, which are recorded by the use of work reports, logbooks, profiles or portfolios. The student's immediate supervisor shall confirm the accuracy of the evidence the student presents in this way. The supervisor must be competent in the area.

Alternatively, evidence may be obtained through formalised assessment events that simulate relevant work activities.

Conditions of assessment

Evidence of competent performance can be gathered from the workplace or a simulated work environment. A simulated environment would necessarily include equipment and wiring systems similar to those encountered in a real workplace. As well as the generic aspects of competency, assessment should take into account variations between particular industry sectors and different enterprises. For example equipment used in process industries will be different in some respects to that used in Mining.

Assessment criteria

In judging work performance it is essential that evidence regarding the following aspects of competency is considered.

- Performance is autonomous and to requirements and **occurs on at least 2 occasions for each of the following elements:**
 - Plan and prepare for installation
 - Install wiring systems
 - Inspect and notify completion of work
- **and at least 4 of the following cabling systems:**
 - Thermoplastic insulated cable
 - Thermoplastic sheathed flat cable
 - Thermoplastic sheathed circular cable
 - Armoured cable
 - Fire performance cables eg. MIMS
 - Special cables eg trailing cables
- **for circuits and cabling systems related to at least 4 of the following:**
 - Switchboards
 - Protection devices
 - Single phase motors and their controls
 - Three phase motors and their controls

- DC motors and their controls
- Lighting
- Socket outlets
- Control devices
- Appliances

- Applying **techniques, procedures, information and resources** relevant to performance.

Judgement should be made on evidence gathered from a number of events and over a period showing the development of competent work performance, and which shall include confirmation of the relevant ERAC *Essential Performance Capability Requirements for Electricians* as detailed under Section 4 of this module - ERAC Essential Capabilities – alignment.

Note: The EE-Oz Training Standards (EEQSBA) Profiling system incorporates the Essential Performance Capability Requirements for Electricians in its evidence collection as it directly aligns with the evidence required in this module.

Resource requirements

Resources should be sufficient for participants to carry out activities, from which evidence may be gathered, on an individual basis. This will include access to tools, equipment, standards and other documents that are necessary to perform the activities required.

Occupational health and safety requirements

A safe and healthy environment will be provided for participants and assessors as well as safety procedure with regard to assessment activity.