



Australian Government

UEPMNT370A Maintain and monitor wind farm civil assets

Release: 1

UEPMNT370A Maintain and monitor wind farm civil assets

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This unit deals with the skills and knowledge required to condition monitor and conduct preventative, remedial maintenance required to ensure the integrity of civil assets associated within a wind farm.

Application of the Unit

Application of the Unit 2)

This unit is intended to augment formally acquired competencies. It is suitable for employment-based programs under an approved contract of training.

Licensing/Regulatory Information

License to practice

3)

The skills and knowledge described in this unit do not require a licence to practise in the workplace. However, practice in this unit is subject to regulations directly related to Occupational Health and Safety and where applicable contracts of training such as apprenticeships and the like.

Pre-Requisites

Prerequisite Unit(s) 4)

Competencies 4.1)

Granting of competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed.

Where pre-requisite pathways have been identified. All competencies in the Common Unit Group must have been completed.

Common Unit Group

Unit Code	Unit Title
UEENEEE101 A	Apply Occupational Health Safety regulations, codes and practices in the workplace
UEENEEK142 A	Apply environmental and sustainable procedures in the energy sector
UEENEEE102 A	Fabricate, assemble and dismantle utilities industry components

Literacy and numeracy skills 4.2)

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following levels. A description of what each level entails is provided in Section 2.3.1 Language, Literacy and Numeracy.

Reading 3 Writing 3 Numeracy 3

Employability Skills Information

Employability Skills 5)

This unit contains Employability Skills.

The required outcomes described in this unit of competency contain applicable facets of Employability

Employability Skills

5)

Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit
 Performance Criteria describe the required performance needed to demonstrate achievement of the element.
 Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria**ELEMENT****PERFORMANCE CRITERIA**

- | | |
|---------------------------------|---|
| 1 Plan and prepare for the work | <p>1.1 Occupational Health and Safety standards, statutory requirements, relevant Australian standards, codes of practice, manufacturer specifications, environmental requirements and enterprise procedures are identified, applied and monitored throughout the work procedure.</p> <p>1.2 Work requirements are identified from request/works orders or equivalent and clarified/confirmed with appropriate parties or by site inspection.</p> <p>1.3 Resources required to satisfy the work are identified, obtained and inspected for compliance in accordance with enterprise procedures.</p> <p>1.4 Potential hazards are identified and prevention and/or control measures are selected in accordance with the work plan and site procedures.</p> <p>1.5 Work is planned in detail including sequencing and prioritising and considerations made, where appropriate, for maintenance of plant security and capacity in accordance with site</p> |
|---------------------------------|---|

ELEMENT	PERFORMANCE CRITERIA
	requirements.
	1.6 Co-ordination requirements, including requests for isolations where appropriate, are resolved with others involved, affected or required by the work.
2 Monitor civil assets	2.1 Inspections of assets are completed in accordance with enterprise/site requirements.
	2.2 Inspections are reported in accordance with enterprise/site requirements.
	2.3 Defects are repaired or reported in accordance with enterprise/site requirements.
3 Maintain civil assets	3.1 Maintenance of civil assets is undertaken in accordance with site requirements and local conditions.
	3.2 Appropriate tools, equipment or plant required to maintain assets is utilised in accordance with manufacturers specifications and job requirements.
	3.3 Defects are repaired or reported in accordance with enterprise/site requirements.
4 Complete the work	4.1 Work is completed and appropriate personnel notified in accordance with enterprise/site requirements.
	4.2 Work area is cleared of waste, cleaned, restored and secured in accordance with enterprise/site requirements.
	4.3 Tools and equipment are maintained in accordance with manufacturer specifications and enterprise/site procedures.
	4.4 Work completion details are finalised in accordance with enterprise/site procedures.
	4.5 Lessons learnt from the activity or experience are shared with other team members and recorded for future reference.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) This describes the essential skills and knowledge and their level, required for this unit.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

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Evidence shall show that knowledge has been acquired of monitoring and maintaining wind farm civil assets to the extent indicated by the following aspects:

T1. Fencing

- Types and applicability of different types of fencing
- Regulations for types of fencing and installation standards
- Methods for maintaining fencing

T2. Gates

- Types and applicability of different types of gates
- Methods for maintaining gates

T3. Paints

- Types and uses of different types of paint
- Health and safety precautions with use of different types of paints
- Disposal of paint

T4. Corrosion

- Recognising corrosion
- Typical places where corrosion occurs
- Methods of corrosion control

T5. Pests

- Identification of different types of pests and the damage they cause
 - Insect pests
 - Rodents
 - Native animals
 - Permitted and recommended methods of pest control

T6. Vegetation control

- Identification of types of weeds
- Native plants including protected species
- Methods of controlling weeds and vegetation

REQUIRED SKILLS AND KNOWLEDGE

- Mechanical vegetation control
 - Lawn mowers
 - Brush cutters
 - Chain saws
- T7. Security
 - Methods of securing site assets
 - 1st-level maintenance of security systems
- T8. Emergency services
- T9. Enterprise procedures for notifying emergency services in case of an incident
- T10. Roads and pathways
 - Materials used to build roads and pathways
 - Recognising early signs of deterioration
 - Restorative techniques
 - Blue-metal rock mulch maintenance
- T11. Erosion control
 - Causes of soil erosion
 - Stormwater control
- T12. Lighting
 - Types of luminaires
 - Method of replacing different types of luminaires
 - Method of isolating lighting circuits prior to servicing
- T13. Planning permit and environmental plans
 - Identification of planning and environmental plan restrictions
 - Methods of civil works remediation that conform both to planning and environmental plans

Evidence Guide

EVIDENCE GUIDE

9) The Evidence Guide forms an integral part of this Unit and shall be used in conjunction with all components parts of this unit and performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment 9.1)

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the industry-preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accordance with industry and regulatory policy.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Sources of evidence need to be 'rich' in nature to minimise error in judgment.

Activities associated with normal everyday work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practised. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines, Section 3.1 of this Training Package.

**Critical aspects
of evidence
required to
demonstrate
competency in
this unit** 9.2)

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated:

- On at least two (2) occasions. accordance with the "Assessment Guidelines" for the UEP12 Training Package.

Evidence shall also comprise:

- A representative body of work performance demonstrated within the timeframe typically expected of the discipline, work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:
 - Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and range; and
 - Apply sustainable energy principles and practices as specified in the Performance Criteria and range; and
 - Demonstrate an understanding of the required skills and knowledge as described in this unit to such an extent that the learner's performance outcome is reported in accordance with the preferred approach; namely a percentile graded result, where required by the regulated environment; and
 - Demonstrate an appropriate level of employability skills; and
 - Conduct work observing the relevant Anti Discrimination legislation, regulations, policies and workplace procedures; and

Demonstrated performance across a representative range of contexts from the prescribed items below:

- | | | |
|---|----------------------|---|
| A | All of the following | <ul style="list-style-type: none"> • Repair a mesh wire fence |
| B | All of the following | <ul style="list-style-type: none"> • Repair a gate hinge |
| C | All of the | <ul style="list-style-type: none"> • Perform corrosion restoration and painting of a metal surface |

- following
- | | | |
|---|----------------------|---|
| D | All of the following | <ul style="list-style-type: none"> • Place pest control baits in a safe and environmentally aware manner |
| E | All of the following | <ul style="list-style-type: none"> • Use a brush cutter to reduce vegetation from the perimeter of a building or structure • Use a lawnmower to reduce vegetation from the perimeter of a building or structure |
| F | All of the following | <ul style="list-style-type: none"> • Perform a survey of the serviceability of lighting systems and replace defective lamps |
| G | All of the following | <ul style="list-style-type: none"> • Confirm the correct operation of security systems |
| H | All of the following | <ul style="list-style-type: none"> • Deal with an unplanned event by drawing on essential knowledge and skills to provide appropriate solutions. |

Context of and specific resources for assessment 9.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual work as prescribed by this unit.

These should be used in the formal learning/assessment environment.

Note:

Where simulation is considered a suitable strategy for assessment, conditions must be authentic and as far as possible reproduce and replicate the workplace and be consistent with the approved industry simulation policy.

The resources used for assessment should reflect current industry practices in relation to:

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**Method of
assessment****9.4)**

This unit shall be assessed by methods given in the Assessment Guidelines, Section 1.3 of this Training Package.

Note:

Competent performance with inherent safe working practices is expected in the Industry to which this competency standard unit applies. This requires assessment in a structured environment which is primarily intended for learning/assessment and incorporates all necessary equipment and facilities for learners to develop and demonstrate the essential knowledge and skills described in this unit.

**Concurrent
assessment and
relationship with
other units****9.5)**

There are no concurrent assessment recommendations for this unit.

Range Statement

RANGE STATEMENT

10) This relates to the competency standard unit as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.

Civil assets may include: buildings, roads, fences, wind monitoring tower, lighting towers, transmission line structures, walkways and poles.

Maintain civil assets may include: repairs to buildings, maintenance of buildings, maintenance of roads, repairs to fences, repairs to towers, weed control, inspection of poles, maintenance of tourist locations and repairs to walkways.

Safety standards may include relevant sections of Occupational Health and Safety legislation, enterprise safety rules, relevant state and federal legislation, local by-laws, environmental requirements, relevant licensing requirements for tools and mobile plant.

Communications may be by means of telephone, fax, two-way radio, dedicated computer equipment, logs, and verbal.

Appropriate personnel to consult, give or receive direction may include power plant operator/system controllers, technical and engineering officers, maintenance staff, other authorities, contractors and general public.

Tools and equipment may include lifting equipment, cranes, hoists, mobile plant, four wheel drive vehicles, earth moving equipment, trash rakes, power tools, chainsaws, boats, hand tools and fire suppression equipment.

Extreme and varied weather conditions which may be encountered, include rain, high winds and flooding.

Work completion details may include enterprise recording procedures (electronic or hard copy).

Generic terms used throughout this Vocational Standard shall be regarded as part of the Range Statement in which competency is demonstrated. The definition of these and other terms that apply are given in the Glossaries, Section 2.1 of this Training Package.

Unit Sector(s)

Not applicable.

Competency Field

Competency Field 11)
Maintenance