Australian Government
Department of Education, Employment and Workplace Relations

UETTDREL11A Apply sustainable energy and environmental procedures

Release: 1

ISC INDUSTRY SKILLS COUNCILS
Creating Australia's Future

UETTDREL11A Apply sustainable energy and environmental procedures

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor **1) Scope:**

1.1) Descriptor

This Competency Standard Unit covers the implementation of relevant environmental procedures to specific projects/sites. It includes the identification of possible environmental risks and impacts, the undertaking of work in accordance with sustainable energy and energy conservation principles, the provision of re-cycling materials and the recording and reporting of environmental incidents. It also encompasses the process of reviewing and participating and contributing in environmental procedures according to established enterprise requirements.

Application of the Unit

Application of the Unit **2)**

This Competency Standard 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 may require a licence/registration to practice in the work place subject to regulations for undertaking of electrical work. Practice in workplace and during training is also subject to

License to practice **3)**

regulations directly related to Occupational Health and Safety, electricity/telecommunications/gas/water industry safety and compliance, industrial relations, environmental protection, anti discrimination and training. Commonwealth, State/Territory or Local Government legislation and regulations may exist that limits the age of operating certain equipment.

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 be have been completed plus all the competencies in one (1) of the identified Pathway Unit Group(s):

There are no prerequisite competencies to this unit.

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 scales. Description of each scale is given in Volume 2, Part 3 “Literacy and Numeracy”.

Reading 3 Writing 3 Numeracy 3

Employability Skills Information

Employability Skills **5)**

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 Prepare to implement environmental and sustainable energy procedures	1.1 Works schedule(s), including drawings, plans, requirements, established procedures, and material lists, are received, analysed and confirmed, if necessary, by site inspection.
	1.2 Relevant requirements and established procedures for the work are communicated to all personnel and identified for all work sites.
	1.3 OHS policies and procedures related to requirements and established procedures for the implementation of environmental and sustainable energy procedures are obtained and confirmed for the purposes of the work to be performed and communicated.
	1.4 Environmental and sustainable energy procedures are identified, prioritised and combined within relevant projects, following consultation with others for completion within acceptable timeframes and in accordance with established procedures.
	1.5 Hazards are identified, OHS risks assessed and control measures are prioritised, implemented and monitored including emergency exits kept

ELEMENT	PERFORMANCE CRITERIA	
		clear according to established procedures.
	1.6	Relevant work permits are obtained to access and perform work according to environmental and sustainable energy procedures, requirements and/or established procedures.
	1.7	Resources including personnel, equipment, tools and personal protective equipment required for the job are obtained and confirmed in working order.
	1.8	Relevant personnel at worksite are confirmed current in environmental and sustainable energy procedures and other related work procedures according to requirements.
	1.9	Liaison and communication issues with other/authorised personnel, authorities, clients and land owners are resolved to carry out work where necessary.
	1.10	Site is prepared according to the work schedule, taking into account environmental and sustainable energy procedures and the need to minimise risk and damage to property, commerce, and individuals in accordance with established procedures.
	1.11	Personnel participating in the work, including plant operators and contractors, are fully briefed on environmental and sustainable energy procedures and respective responsibilities confirmed where applicable in accordance with established procedures.
2 Carry out environmental and sustainable energy procedures	2.1	OHS and sustainable energy principles and practices to reduce the incidents of accidents and minimise waste are monitored and followed in accordance with requirements and/or established procedures.
	2.2	Use of power tools/equipment, techniques and practices are safely followed under environmental and sustainable energy procedures and, currency according to requirements confirmed.

ELEMENT	PERFORMANCE CRITERIA	
	2.3	Essential knowledge and associated skills are applied in the safe implementation of environmental and sustainable energy procedures to ensure completion in an agreed timeframe and, to quality standards with a minimum of waste according to requirements.
	2.4	Relevant environmental procedures are applied to a specific project(s)/site(s).
	2.5	Work is conducted in accordance with the principles of sustainable energy and energy conservation.
	2.6	Provision for the re-cycling or re-use of materials is undertaken where possible.
	2.7	Hazard warnings and safety signs are recognised and hazards and assessed OHS risks are reported to the immediate authorised persons for directions according to established procedures.
	2.8	Unplanned events in the implementation of environmental and sustainable energy procedures are undertaken within the scope of established procedures.
	2.9	Known solutions to a variety of problems are applied using acquired essential knowledge and associated skills on environmental and sustainable energy procedures.
	2.10	Ongoing checks of quality of the work are undertaken in accordance with instructions and established procedures.
3 Complete the environmental and sustainable energy procedures	3.1	Work undertaken is checked against works schedule for conformance with requirements and environmental and sustainable energy procedures and, anomalies reported in accordance with established procedures.
	3.2	Accidents and/or injuries are reported in accordance with requirements/established procedures, where applicable.
	3.3	Work site is rehabilitated, cleaned up and made

ELEMENT	PERFORMANCE CRITERIA	
		safe in accordance with environmental and sustainable energy procedures as well as other established procedures.
	3.4	Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with environmental and sustainable energy procedures as well as other established procedures.
	3.5	Relevant work permit(s) are signed off and, environmental risks/incidents and potential impacts are reported and recorded according to requirements/established procedures.
	3.6	Works completion records, reports, as installed /modified drawing and/or documentation and information are finalised and processed and appropriate personnel notified.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) Essential Knowledge and Associated Skills (EKAS): This describes the essential skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of applying environmental and sustainable energy procedures.

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

KS01-TEL11A Environmental fundamentals

Evidence shall show an understanding of environmental fundamentals to an extent indicated by the following aspects:

T1 Environmental standards, codes, environmental legislation, supply authority regulations and or enterprise requirements applicable to the control of environment associated with the worksite encompassing:

- Relevant federal legislation
- Relevant state/territory legislation
- Relevant local government by-laws
- Relevant government or quasi government policies and regulations
- Relevant community planning and development agreements - land care agreements

T2 Employer and employee responsibilities

T3 Methods of obtaining information on environmental issues and updates

T4 Methods of identifying environmental impacts from work related activities

T5 Meaning of environmental terms encompassing:

- Identification, assessment and control of risks
- Compliance
- Best practice
- Sustainable energy

T6 Procedures in implementing management plans to ensure compliance

KS02-TEL11A Material handling and the environment

Evidence shall show an understanding of material handling and the environment to an extent indicated by the following aspects:

T1 Methods of obtaining updated environmental information and data sheets on the proper use and handling of equipment and materials

T2 Environmental standards, codes, environmental legislation, OHS legislation, hazardous substances/dangerous goods regulations, supply authority regulations and or enterprise requirements applicable environmental care when handling materials including provision of manufacturers and suppliers information such as material safety

REQUIRED SKILLS AND KNOWLEDGE

data sheets (MSDS)

T3 Types and application of personal protective equipment used for hazards substances and dangerous goods

T4 Techniques in handling equipment to eliminate/reduce risks to the environment from spillages of oils, herbicides, pesticides and chemicals from such equipment encompassing:

- Vehicle loading crane
- Chainsaw
- Enterprise vehicles
- Explosive power tools

T5 Procedures for handling and control of spillages of herbicides

T6 Methods of disposing and storage of herbicides, pesticides, oils and chemicals

T7 Methods of cleaning mobile plant, equipment and tools

T8 Emergency procedures for spillages of oil to reduce risks to the environment encompassing:

- Methods of cleaning up excessive spillages
- Methods of protection to surrounding environment
- Procedure for notification of relevant personnel and authorities
- Recording procedures

T9 Recording of data

Evidence Guide

EVIDENCE GUIDE

9) This provides essential advice for assessment of the competency standard unit and must be read in conjunction with the Performance Criteria and the range statement of the competency standard unit and the Training Package Assessment Guidelines.

The Evidence Guide forms an integral part of this Unit and shall be used in conjunction with all component 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's 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 accord with Industry and, Regulatory policy in this regard.

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. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day 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 practiced. 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 of this Training Package.

Critical aspects of evidence required to demonstrate competency in this unit

9.2)

Before the critical aspects of evidence are considered all prerequisites shall be met.

Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated on at least two occasions in accordance with the "Assessment Guidelines – UET12". Evidence shall also comprise:

- A representative body of Performance Criteria demonstrated

within the timeframes 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 essential knowledge and associated skills 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:

Range of tools/equipment/materials/procedures/workplaces/other variables		
Group No	**The minimum number of items on which skill is to be demonstrated**	**Item List**
A	All of the following:	Environmental risk assessment Legislative requirements Sustainable energy principles and practice
B	At least one occasion	Dealing with an unplanned event by drawing on essential knowledge and associated skills to provide appropriate solutions incorporated in the holistic

		assessment with the above listed items.

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 environmental and sustainable energy procedures.

In addition to the resources listed above, in context of and specific resources for assessment, evidence should show demonstrated competency working below ground, in limited spaces, with different structural/construction types and method and in a variety of environments.

Method of assessment **9.4)**

This Competency Standard Unit shall be assessed by methods given in Volume 1, Part 3 "Assessment Guidelines".

Note:
Competent performance with inherent safe working practices is expected in the Industry to which this Competency Standard Unit applies. This requires that the specified essential knowledge and associated skills are assessed 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 associated skills described in this unit.

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

For optimisation of training and assessment effort, competence in this unit may be assessed concurrently with the following units:

UEENEEE101A Apply Occupational Health Safety regulations, codes and practices in the workplace

UETTDREL12A Operate plant and equipment near live electrical conductors and apparatus

UETTDREL14A Working safe near live electrical apparatus as a non-electrical worker

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.

This Unit shall be demonstrated in relation to the application of relevant environmental and sustainable energy procedures to specific projects/sites incorporating energy conservation principles and relevant re-cycling procedures.

Specific project(s)/site(s) may include, but is not limited to buildings; plants construction and maintenance sites; workshops; laboratories; catchments; flood plains irrigation sites; wetlands; drainage sites; waste disposal sites; easements.

Environmental risks may include impact of mismanagement of chemicals; impact of mismanagement of biological agents; detrimental impact on limited water resources; spillage; waste disposal; detrimental impact on water catchment areas (urban and non-urban); detrimental impact on rivers, waterways and channels; unsatisfactory trade waste treatment and disposal processes; poor construction processes; planning deficiencies; neglect of sustainable energy principles

Environmental legislation may include relevant federal legislation; relevant State/Territory legislation; relevant local government by-laws; relevant government or quasi government policies and regulations; relevant community planning and development agreements (e.g. land care agreements)

Incidents of environmental impact may include emissions to air; releases to/of water; releases to land; vibration and noise; disposal of waste; contamination of land; impact on communities; destruction of habitat; use of energy sources; waste generation processes and technologies; impact on culturally significant sites; and may involve the implementation of emergency responses

Environmental management documentation may include information on applicable environmental laws or other requirements; complaint records; training records; process information; process operational log books; inspection, maintenance and calibration records; relevant contractor and supplier information; incident reports; information on emergency preparedness and response; records of significant environmental impacts; chain of custody and compliance records; audit results; management reviews

The following constants and variables included in the element/Performance Criteria in this unit are fully described in the Definitions Section 1 of this volume and form an integral part of the Range Statement of this unit:

- Appropriate and relevant persons (see Personnel)
- Appropriate authorities
- Assessing risk
- Assessment
- Authorisation
- Diagnostic, testing and restoration

RANGE STATEMENT

- Documenting detail work events, record keeping and or storage of information
- Drawings and specifications
- Emergency
- Environmental and sustainable energy procedures
- Environmental legislation
- Environmental management documentation
- Established procedures
- Fall prevention
- Hazards
- Identifying hazards
- Inspect
- Legislation
- MSDS
- Notification
- OHS practices
- OHS issues
- Permits and/or permits to work
- Personnel
- Quality assurance systems
- Requirements
- Testing procedures
- Work clearance systems

Unit Sector(s)

Not applicable.

Competency Field

Competency Field **11)**

Entry Level – Cross Discipline Units.