



Australian Government

Department of Education, Employment and Workplace Relations

MSACMT270A Use sustainable energy practices

Revision Number: 1

MSACMT270A Use sustainable energy practices

Modification History

Not applicable.

Unit Descriptor

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| Unit descriptor | This unit covers the skills needed to use and make improvements in sustainable energy practices in production, maintenance and logistics. |
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Application of the Unit

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| Application of the unit | <p>In a typical scenario, a team member will be aware of energy use. Some of this energy use is necessary but typically a large part of energy use is <i>unnecessary waste</i> and so should be eliminated. The team member will observe energy use and ensure it is according to the organisation's plans and will also engage in continuous improvement for energy use.</p> <p>This unit requires the application of skills associated with interpreting workplace information on energy use and using procedures and technology to minimise energy use and waste.</p> |
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

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| Prerequisite units | |
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Employability Skills Information

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| Employability skills | This unit contains employability skills. |
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Elements and Performance Criteria Pre-Content

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| Elements describe the essential outcomes of a unit of competency. | Performance Criteria describe the performance needed to demonstrate achievement of the Element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the Range Statement. Assessment of performance is to be consistent with the Evidence Guide. |
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Elements and Performance Criteria

| ELEMENT | PERFORMANCE CRITERIA |
|-------------------------------------|---|
| 1. Identify energy use | 1.1. Identify energy consuming processes in relation to own work 1.2. Recognise the type/source of <i>energy</i> consumed |
| 2. Follow energy conservation plans | 2.1. Check energy use in accordance with conservation plans 2.2. Identify most efficient or appropriate equipment or procedures to comply with conservation plans 2.3. Identify any uses which do not comply with conservation plans 2.4. Take action in accordance with procedures to bring energy use back in line with conservation plans |
| 3. Improve energy use | 3.1. Note any waste of energy use 3.2. Recommend improvements to energy use |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- analysis
- basic mathematics
- communication
- problem solving

Required knowledge

- types and sources of energy relevant to the process
- basic principles of energy efficiency
- process needs for energy

Evidence Guide

| EVIDENCE GUIDE | |
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| <p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the assessment guidelines for this training package.</p> | |
| Overview of assessment requirements | The team member will be able to identify the energy use of any/all parts of the process and recommend better ways of using it. |
| What are the specific resource requirements for this unit? | Access to an organisation seeking to improve its energy usage. |
| What critical aspects of evidence are required to demonstrate competency in this unit? | Evidence of conformance to energy usage plans and suggestions for improvement should be available. |
| In what context should assessment occur? | Assessment needs to be conducted in an organisation where energy is a significant cost component or by use of a project, simulation or case study. |
| Are there any other units which could or should be assessed with this unit or which relate directly to this unit? | <p>This unit is related to:</p> <ul style="list-style-type: none"> • <i>MSACMT271A Use sustainable environmental practices</i> - which covers general environmental practices, and • <i>MSACMT670A Develop and manage sustainable energy practices</i> - which covers higher level aspects. |
| What method of assessment should apply? | <p>Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria, skills and knowledge. A holistic approach should be taken to the assessment.</p> <p>Assessors should gather sufficient, fair, valid, reliable, authentic and current evidence from a range of sources. Sources of evidence may include direct observation, reports from supervisors, peers and colleagues, project work, samples, organisation records and questioning. Assessment should not require language, literacy or numeracy skills beyond those required for the unit.</p> <p>The assessee will have access to all techniques, procedures, information, resources and aids which would normally be available in the workplace.</p> <p>The method of assessment should be discussed and agreed with the assessee prior to the commencement of the</p> |

| EVIDENCE GUIDE | |
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| | assessment. |
| What evidence is required for demonstration of consistent performance? | Evidence should be available from the daily routine of the job to show that there is consistent performance. |

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

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| <p>Waste</p> | <p>Waste (also known as muda in the Toyota Production System and its derivatives) is any activity which does not contribute to customer benefit/features in the product. Within manufacturing, categories of waste include:</p> <ul style="list-style-type: none"> • excess production and early production • delays • movement and transport • poor process design • inventory • inefficient performance of a process • making defective items. <p>Waste for this unit may include activities which do not yield any benefit to the organisation or any benefit to the organisations customers.</p> |
| <p>Energy</p> | <p>Energy is used to mean all sources of energy used by the process be it electricity, gas or mobile transport fuel. The uses of the energy will also be potentially wide and include heating and cooling, lighting, moving materials (including pumps and conveyors), modifying materials (including cutting, forming, weaving, knitting, reacting, moulding, extruding, mixing), generating pressure/vacuum or providing motive power for equipment and transport.</p> |

Unit Sector(s)

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| <p>Unit Sector</p> | <p>CM Tools</p> |
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Co-requisite units

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| Co-requisite units | |
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Functional area

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| Functional Area | |
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