



Australian Government

MSS405086 Develop sustainable energy practices

Release: 1

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Modification History

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

Application

This unit describes the skills and knowledge required by an individual to identify opportunities for, and make improvements in, sustainable energy practices in an organisation. This includes efficient use of raw materials, management of waste, electricity conservation, heat conservation and management, water management, environment protection and environment obligations of organisations.

The unit involves analysis of energy used in processes and operations and categorising the energy use according to lean principles. The unit covers categorising energy into necessary use and muda (waste) with the muda being further categorised into necessary muda and unnecessary muda. Strategies for eliminating or minimising energy muda are covered with cost benefit analyses being required for strategies.

This unit applies to a manager, technical specialist or similar who is required to use problem solving, initiative, planning and organising skills to develop plans for efficient energy use.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Competitive systems and practices

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|----------|---------------------------|------------|--|
| 1 | Analyse energy use | 1.1 | Identify all energy consuming processes |
| | | 1.2 | Determine quantity and nature of energy consumed |

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
		1.3	Analyse energy consumed and generated in different parts of the process
		1.4	Determine source of energy consumed in process
2	Develop energy conservation plans	2.1	Determine the efficiency of use of energy by all energy consuming processes
		2.2	Determine causes of low efficiency of use
		2.3	Develop plans for increasing the efficiency of energy use
		2.4	Calculate cost benefit of plans
3	Develop energy trading plans	3.1	Compare energy generating activities with energy consuming activities
		3.2	Determine feasibility of energy consuming activities using energy generated by other activities
		3.3	Develop plans for energy trading
		3.4	Calculate cost benefit of plans
4	Investigate alternative sources of energy	4.1	Write a specification for energy required
		4.2	Identify sources for that energy
		4.3	Calculate cost benefit for alternative energy sources
5	Develop plans for more efficient energy use	5.1	Compare cost benefit for different alternatives developed
		5.2	Rank proposals based on cost benefit compared to limited resources
		5.3	Check proposals meet regulatory requirements

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

5.4 Recommend proposals for improving energy efficiency

6 Implement selected plans

6.1 Liaise with relevant people to implement energy efficiency plans

6.2 Follow through to ensure implementation occurs

6.3 Monitor implementation and adjust

6.4 Check new energy usage to ensure improvements have occurred

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS405070 Develop sustainable energy practices.

Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS405086 Develop sustainable energy practices

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- developed sustainable energy practices for at least 1 organisation.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- sources of data and required calculations
- types and sources of energy
- methods of analysing energy efficiency for different types of energy
- methods of converting energy values from one form to another
- alternative sources of energy
- principles of energy efficiency
- sustainability regulatory and legislative requirements
- energy trading schemes and procedures
- organisation and process needs for energy
- muda (waste) including: necessary and unnecessary

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions, contingencies, facilities, equipment and resources.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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