

Australian Government

Department of Education, Employment and Workplace Relations

CPCCBC6010A Plan, develop and implement building or construction energy conservation and management practices and processes





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Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to develop, plan and implement practices and processes concerning energy conservation and management practices of organisations involved in either residential or commercial projects. It supports the establishment of a management philosophy focused on reducing energy waste through greater awareness; and the implementation of practices which result in savings both within and external to the organisation.

Application of the Unit

Application of the unit This unit of competency supports builders, project managers and related construction industry professionals responsible for coordinating and managing building or construction projects.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

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.

Elements and Performance Criteria

ELEMENT		PERFORMANCE CRITERIA	
1.	Develop energy conservation and management philosophies and strategies.	 1.1.Factors to be included in the organisational <i>energy conservation and management system</i> are quantified and qualified. 1.2.<i>Strategic factors</i> that impact on the organisational ability to improve energy conservation and management practices and processes are evaluated. 1.3.Range and scope of activities being undertaken by the organisation in regard to energy conservation and management are quantified. 1.4.Previous policy and <i>operational factors</i> contributing to energy conservation and management are evaluated. 1.5.Organisational energy conservation and management policy and strategy are developed, with assessment of savings and benefits to be derived. 	
2.	Scope the introduction and management of energy conservation and management principles and processes.	 2.1. Board and senior management are consulted concerning the introduction and implementation of the energy conservation and management policy and strategy. 2.2. Organisational policy and management guidelines are developed covering energy conservation and management within and external to the organisation. 2.3. Strategic plan for the introduction of the policy and strategy is developed and documented. 2.4. Staff are briefed on criteria for implementing and maintaining systems concerned with energy conservation and management. 2.5. Methods are developed to gather and monitor energy conservation and management information essential to the management process. 2.6. Methods are developed to translate the policy into practice in the organisation and on site. 	
3.	Implement the energy conservation and management system.	 3.1. Energy conservation and management instructions are built into organisational operating procedures. 3.2. Staff training program is introduced to ensure that energy conservation and management practices are applied to organisational activities on a daily basis. 3.3. Methods for determining effectiveness of the energy conservation and management system are introduced. 3.4. Routine monitoring of energy benchmarks is established and maintained. 	
4.	Manage the	4.1. Energy conservation and management issues are	

4.4. Staff compliance with energy conservation and

management policy is monitored.

ELEMENT	PERFORMANCE CRITERIA
organisational energy conservation	added to the process agenda at all levels of the organisation.
processes.	4.2. Contractors and employees are advised of and monitored within the framework.
	4.3. Policy guidelines and obligations are circulated within the organisation and sign-off by staff,
	employees and contractors is obtained.

PERFORMANCE CRITERIA

ELEMENT PERFORMANCE CRITERIA

5.	Implement an energy	5.1. Processes to monitor and report on energy
	management	conservation and management achievements are
	feedback system.	developed and introduced.
		5.2. Feedback systems are developed, circulated and
		maintained to ensure all stakeholders can support the
		energy conservation and management process.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills for this unit are:

- ability to facilitate the implementation of new and modified energy conservation and management systems
- apply numeracy skills to workplace requirements
- communication skills to:
 - consult board members and senior management
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - obtain agreement on guidelines and obligations
 - provide information to staff and contractors
 - read and interpret documents from a variety of sources
 - seek feedback
 - use and interpret non-verbal communication
 - use language and concepts appropriate to cultural differences
 - written skills to develop policies, strategies and plans
- conceptualisation of unique solutions to complex problems and situations
- interpretation of strategic and often ambiguous information to ensure logical and practical decisions
- management skills, including the ability to delegate tasks within specific functional guidelines and direct the activities of personnel involved in the energy conservation and management review process
- supervisory skills to monitor and oversee performance of the management and review systems and individuals involved in the process
- technological skills to facilitate use of the organisation's software and office equipment.

REQUIRED SKILLS AND KNOWLEDGE

Required knowledge

Required knowledge for this unit is:

- energy conservation and management issues that impact on organisation and its practices
- factors to be considered in assessing the energy conservation and management requirements inherent in different types of building and site utilisation projects
- financial and business administration principles commensurate with organisational needs
- key factors influencing decisions on energy conservation and management issues and decision making
- legislative, regulatory and administrative obligations incumbent on the building and construction industry for energy conservation and management practices.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

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Overview of assessment	This unit of competency could be assessed by developing, implementing and maintaining the energy conservation and management system for an organisation. This unit of competency can be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project- based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	 A person who demonstrates competency in this unit must be able to provide evidence of the ability to: contribute to an effective energy conservation and management strategy establish identifiable roles and responsibilities for organisation personnel involved in that strategy implement management practices which result in a high level of compliance with energy management guidelines and organisational policy strategically plan to meet energy management obligations effectively develop conceptual and strategic problem solving and systems communicate effectively both verbally and in writing with senior management, employees, clients, regulatory authorities and legal representatives.
Context of and specific resources for assessment	This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints. Assessment of essential underpinning knowledge will usually be conducted in an off-site context. Assessment is to comply with relevant regulatory or Australian standards' requirements.

EVIDENCE GUIDE

	Resource implications for assessment include:
	• documentation that should normally be available in either a building or construction office
	 relevant codes, standards and regulations office equipment, including calculators, photocopiers and telephone systems
	 computers with appropriate software to view 2-D CAD drawings, run costing programs and print copies
	 a technical reference library with current publications on measurement, design, building construction and manufacturers' product literature
	 copies of appropriate environmental legislation and regulations
	 strategic building and construction market information
	• a technical reference library with current publications on design, building construction and manufactures product literature
	 suitable work area appropriate to the construction process.
	Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.
Method of assessment	Assessment methods must:
	 satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
	 include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application reinforce the integration of employability skills with workplace tasks and job roles confirm that competency is verified and able
	to be transferred to other circumstances and

EVIDENCE GUIDE

environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed. Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

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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Energy conservation and management system quality ensuring availability of appropriately qualified personnel to deal with energy issues

RANGE STATEMENT

principles and practices include:	• maintenance of agreed expenditures for energy management compliance
	• obtaining timely and relevant expert advice as required by the organisation or project
	 organisational compliance with appropriate legislation and regulations
	 periodic review of energy conservation and management practices and processes
	 preventative maintenance of energy conservation and management practices and processes.
Strategic factors impinging on the	extent and types of equipment being operatedlocation and nature of the construction activity
organisational energy conservation and management process obligations include:	 location and nature of the construction activity organisational policy and management practices
	 scope of operations and activities of organisation
	• types, age and construction of buildings in which organisation operates.
<i>Operational factors</i> impinging on organisational energy conservation	• management commitment to the energy conservation and management process
d management process include:	organisational policy and operating guidelinespublic liabilities and exposure to risk
	 risk management strategies and policies skills and experience of organisational personnel
	 structure of the management team and apportionment of responsibilities
	 timing of activities and project deadlines types of materials and consumables being employed in the process.
Feedback systems include:	 emergency or process breakdown advisory channels
	• formal meetings between staff, employees and contractors on a regular basis
	• programmed appraisals of compliance with energy policy involving staff, employees and contractors
	 programmed reporting and energy management conformance statements and timetables
	• verbal, electronic and hard copy information

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RANGE STATEMENT

communications systems.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area