



Australian Government

ICTSUS603 Integrate sustainability in ICT planning and design projects

Release: 1

ICTSUS603 Integrate sustainability in ICT planning and design projects

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 7.0.

Application

This unit describes the skills and knowledge required to integrate sustainability concepts and policies into information and communications technology (ICT) planning and design projects. These projects typically involve upgrades to equipment hardware and software and installations of next generation networks (NGN) using emerging technologies.

It applies to individuals with a high level of specialist technical skills and knowledge in ICT networks using internet protocol (IP) systems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications – sustainability

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to integrate sustainability into ICT planning and design projects	1.1 Identify and research sustainability options, and market and technology trends within the industry according to organisational policies and processes 1.2 Evaluate ICT projects into which sustainability can be integrated and discuss project needs with relevant personnel 1.3 Discuss extent to which sustainability is to be integrated with relevant personnel 1.4 Research and identify technology solutions to be utilised in projects 1.5 Gather power consumption data on equipment required for energy

ELEMENT	PERFORMANCE CRITERIA
	audit in compliance with required standards
2. Develop strategies for integrating sustainability into ICT planning and design projects	2.1 Determine and oversee implementation of technology solutions and confirm reduction in power consumption 2.2 Develop environmentally sustainable management principles according to organisational requirements 2.3 Establish key performance indicators (KPI) on sustainability performance according to organisational requirements 2.4 Review and improve KPIs on sustainability performance in consultation with required personnel 2.5 Include planning and design rules for ICT projects and confirm environmentally sustainable best practice according to organisational requirements
3. Complete integration of sustainability into ICT planning and design projects	3.1 Provide a detailed report that identifies energy usage within scope of project 3.2 Estimate potential energy savings and payback periods for recommended sustainability solutions 3.3 Estimate and compare carbon dioxide emissions for projects against required industry benchmarks 3.4 Provide prioritised recommendations and estimates of implementation costs on integration of sustainability

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	• Uses complex mathematical formulae to estimate carbon dioxide emissions • Analyses and confirms capacity requirements and plan budgetary and workforce needs
Oral communication	• Articulates and validates policy and strategy benefits for project requirements using specific language suitable for different audiences • Uses listening and questioning techniques
Reading	• Gathers, interprets and analyses a range of complex textual information from a range of sources and identifies required and key information
Writing	• Records technical requirements and procedures for diverse audiences using specialised language and terminology to convey

SKILL	DESCRIPTION
	outcomes and alternative options
Planning and organising	• Develops plans to manage complex, non-routine tasks with an awareness of how they contribute to longer term operational and strategic goals • Takes responsibility for own workload, negotiating key tasks with others • Systematically analyses required information and evaluates options to make informed decisions
Problem solving	• Uses analytical processes to decide on a course of action, establishing criteria for deciding between options
Technology	• Reflects on the ways in which digital systems and tools are used to achieve work goals, and recognises strategic and operational applications

Unit Mapping Information

Supersedes and is equivalent to ICTSUS601 Integrate sustainability in ICT planning and design projects.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTSUS603 Integrate sustainability in ICT planning and design projects

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- integrate sustainability into at least two information and communications technology (ICT) planning and design projects.

In the course of the above, the candidate must:

- devise strategies to conserve resources
- analyse energy audit data on enterprise resource consumption
- develop and monitor policies for review and improvements, benchmarking against industry best practice and attempting new approaches.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- required legislation, codes, company work practices, regulations and standards, work health and safety (WHS) requirements for scoped work
- advantages and disadvantages of integrating sustainability into ICT planning and design projects
- methods to explain and calculate carbon dioxide emissions
- ICT power consumption calculations
- policy development processes and practices
- power consumption audit methodology
- features of key performance indicators (KPI) used to measure sustainability in ICT planning and design projects, including:
 - financial considerations
 - cost-benefit analyses

- principles, practices, available tools and techniques for sustainability management required in the ICT networking industry
- organisational quality assurance systems for environmental sustainability
- systems and procedures to facilitate workplace sustainability.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- websites on which planning, design and integration of sustainability may be carried out
- required legislation, standards, guidelines, reports and equipment specifications and drawings
- a range of workplace documentation, personnel, information and resources, including:
 - compliance obligations
 - organisational plans.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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