



Australian Government

ICTSUS811 Conduct and manage life cycle assessments for sustainability

Release: 1

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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 conduct life cycle assessments (LCA) to evaluate the human health and environmental impacts arising from delivering products, processes and services.

It applies to individuals who are excellent communicators with a very high level of technical management skills and knowledge of telecommunications networks and systems. In this role, individuals must be able to undertake detailed research, analysis and evaluation.

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. Define and scope LCA goals	1.1 Determine reasons for executing LCA study in compliance with organisational requirements 1.2 Obtain access to information sources and research resources required for LCA study 1.3 Document aims of LCA study and align with organisational sustainability requirements 1.4 Identify sustainability legislation, regulations, policies and procedures and codes of practice required in the information and communication technology (ICT) industry
2. Conduct life cycle	2.1 Construct a life cycle flow diagram and identify all environmental

ELEMENT	PERFORMANCE CRITERIA
inventory (LCI) analysis	inputs and outputs, and environmental processes 2.2 Develop data collection strategies for LCI 2.3 Collect data according to industry and organisational requirements and procedures 2.4 Evaluate and document LCI results according to organisational requirements and procedures
3. Conduct life cycle impact assessment (LCIA)	3.1 Identify and define environmental impact categories to be reported to required personnel 3.2 Classify LCI results into environmental impact categories 3.3 Model LCI impacts within impact categories using science-based conversion factors 3.4 Normalise potential impacts in ways that can be compared 3.5 Assign impact categories by grouping into at least one set and facilitate interpretation of results 3.6 Assign weighting factors to emphasise most important potential impacts
4. Evaluate results from LCI and LCIA	4.1 Identify significant issues identified in LCI and LCIA 4.2 Ensure and evaluate completeness, consistency and sensitivity of results 4.3 Make recommendations for improving initially identified product, process and service life cycle
5. Complete LCA for sustainability	5.1 Create a report and document results of LCA according to organisational requirements and procedures 5.2 Ensure report conclusions and sustainability recommendations align with initial goals of LCA 5.3 Obtain required sign-off procedures and return used resources to their initial state

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 mathematical formulae to estimate CO₂ emissions, and analyse and confirm capacity, personnel and budgetary requirements and all other incidental LCA calculations
Oral communication	Articulates using specific language suitable for clients to convey requirements

SKILL	DESCRIPTION
	• Uses listening and questioning techniques to confirm knowledge
Reading	• Identifies, analyses and evaluates a range of complex documentation, including legislative frameworks and technical specifications
Writing	• Produces complex, detailed and well-structured media releases and other reports and procedures, using specific language and specialised terminology to convey knowledge of outcomes
Teamwork	• Takes responsibility for defining key aspects of own workload, balancing own needs and priorities with those of the work group
Planning and organising	• Develops flexible plans for complex, high impact activities with strategic implications that involve a diverse range of stakeholders with potentially competing demands • Systematically gathers and analyses all required information and evaluates options to make high impact and informed decisions • Uses a broad range of strategies to store, access and organise virtual information, recognising that design choices will influence what information is retrieved and how it may be interpreted and used
Problem solving	• Uses formal analytical and lateral thinking techniques for identifying issues, and generating and evaluating possible solutions
Technology	• Considers the strategic and operational potential of digital trends to achieve work goals, enhance work processes, create opportunities and reduce risks

Unit Mapping Information

No equivalent unit. Supersedes and is not equivalent to ICTSUS807 Conduct and manage a life cycle assessment for sustainability.

Links

Companion Volume Implementation Guide is found on VETNet -

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