



**Australian Government**

# **MSS015001 Measure and report carbon footprint**

**Release: 1**

# MSS015001 Measure and report carbon footprint

## Modification History

Release 1. Supersedes and is equivalent to MSS015001A Measure and report carbon footprint.

## Application

This unit of competency covers determining the carbon footprint of a product or product class across the value chain (which may be internal or external to the enterprise). It includes determining the carbon dioxide (CO<sub>2</sub>) equivalent tonnes and calculating the embodied carbon of a product.

The requirement to measure the carbon footprint could occur as part of an enterprise's regulatory obligation, market or social response or for other purposes. A manager or technical specialist who has a major responsibility for sustainability as part of a broader work role would typically undertake this, or sustainability may be their primary work responsibility.

Skills covered by this unit may be applied individually or in a team context.

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

## Pre-requisite Unit

Nil

## Competency Field

Sustainable operations

## 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.

- |   |   |     |   |
|---|---|-----|---|
| 1 | <b>Map carbon sources and sinks along the value</b> | 1.1 | Select portion of the value chain for analysis. |
|   |   | 1.2 | Identify process steps along the chain.         |

	<b>chain</b>	1.3	Identify the carbon-related change which occurs at each step.
2	<b>Determine nature and source for carbon emissions</b>	2.1	Determine carbon emissions from each step.
		2.2	Determine source of each emission.
		2.3	Identify measurements available for each emission and each source.
3	<b>Quantify carbon</b>	3.1	Quantify each emission.
		3.2	Determine CO2 equivalent tonnes for each emission.
		3.3	Determine total carbon embodied in product.
4	<b>Recommend strategies for reducing carbon footprint</b>	4.1	Short-list high carbon sources.
		4.2	Determine root cause of emissions.
		4.3	Identify relevant carbon sinks.
		4.4	Investigate methods for reducing emissions.
		4.5	Prepare recommendation for improvement.
5	<b>Report carbon footprint</b>	5.1	Identify purpose of report and key stakeholders.
		5.2	Compile data, implications and recommendations.
		5.3	Consult with stakeholders, as appropriate.

## Foundation Skills

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

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

## Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

**Carbon emissions include all of the following known or able to be physically measured emissions of**

- gases, vapours and fumes
- liquids
- solids
- assumed emissions through material balancing
- assumed emissions through energy loss, including heat, friction and other energy conversion yield losses
- relevant greenhouse gases, including those defined under the Kyoto protocol.

## Unit Mapping Information

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## Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>