

# CEP1010: ISO 50001 Energy Management Systems Outline “Self-directed” Online Training

## Prerequisites

None

## Recommended prior learning/experience

Some general knowledge about energy and management and analytical thinking would be required.

## Description

Primarily the module is aimed at practising managers and students of business and management. However, the instructors believe that ISO systems are useful for everyone with interest in implementation of continuous improvement of their performance

## Position and pathway

This module has an associated assessment which takes the form of an online examination. Success in the associated assessment is an element of CEP’s Certified Professional in Energy professional qualification.

## Delivery mode

The training module consists of five (5) videos, five (5) progression quizzes and one (1) completion quiz. The progression quizzes serve as gatekeeper steps, requiring successful completion before participants can advance to the next lesson.

## Hours

This module is split into five (5) lessons and totals approximately three (3) hours of viewing time. Students will be required to undertake five (5) progression quizzes, which should take around five (5) minutes each.

## Learning outcomes

By the end of the module, students should:

1. Understand the definition of energy management systems.
2. Learn continuous improvement cycle and PDCA as a tool.
3. Be able to plan for the implementation of ISO 50001.
4. Learn how to measure energy performance and its indicators.
5. Get familiar with ISO 50001 implementation and certification.

## Module Structure and Progression

Lesson Outlines	
<b>Lesson 1</b>	<b>Overview and Introduction to Energy Management Systems</b>
	<p><b>Video duration:</b> 40 minutes approximately.</p> <p>Content relates to learning outcomes 1:</p> <ul style="list-style-type: none"> <li>• Energy and Emission, Energy Management</li> <li>• Deming Cycle, Management Systems</li> <li>• ISO Organisation and Standards</li> <li>• ISO 50001: Overview, Framework and Requirements</li> <li>• Terms and Definitions (3.1-5)</li> </ul>
<b>Progression Quiz 1</b>	
<b>Lesson 2</b>	<b>Context of the Organisation and Leadership</b>
	<p><b>Video duration:</b> 35 minutes approximately.</p> <p>Content relates to learning outcomes 2:</p> <ul style="list-style-type: none"> <li>• Understanding the organisation and its context (4.1)</li> <li>• Understanding the needs and expectations of interested parties (4.2)</li> <li>• Determining the scope of the energy management system (4.3)</li> <li>• Leadership and commitment, Energy Policy (5.1-2)</li> <li>• Organisation roles, responsibilities and authorities (5.3)</li> </ul>
<b>Progression Quiz 2</b>	
<b>Lesson 3</b>	<b>Planning</b>
	<p><b>Video duration:</b> 55 minutes approximately.</p> <p>Content relates to learning outcomes 3:</p> <ul style="list-style-type: none"> <li>• Actions to address risks and opportunities (6.1)</li> <li>• Objectives, energy targets and planning to achieve them (6.2)</li> <li>• Energy review (6.3)</li> </ul>

	<ul style="list-style-type: none"> <li>• Energy performance indicators (6.4), Energy baseline (6.5)</li> <li>• Planning for collection of energy data (6.6)</li> </ul>
<b>Progression Quiz 3</b>	
<b>Lesson 4</b>	<b>Support and Operation</b>
	<p><b>Video duration:</b> 15 minutes approximately.</p> <p>Content relates to learning outcomes 4:</p> <ul style="list-style-type: none"> <li>• Resources, Competence, Awareness (7.1-3)</li> <li>• Communication (7.4)</li> <li>• Document information (7.5)</li> <li>• Operational planning and control (8.1)</li> <li>• Design and procurement (8.2, 8.3)</li> </ul>
<b>Progression Quiz 4</b>	
<b>Lesson 5</b>	<b>Performance Evaluation and Improvement</b>
	<p><b>Video duration:</b> 28 minutes approximately.</p> <p>Content relates to learning outcomes 5:</p> <ul style="list-style-type: none"> <li>• Performance Evaluation (9.1-3)</li> <li>• Continuous Improvement (10.1-2)</li> <li>• Introduction to a web-based dashboard</li> <li>• ISO 50000 relevant standards</li> <li>• ISO 50001 in New Zealand and the World</li> </ul>
<b>Progression Quiz 5</b>	
<b>Completion Quiz</b> (Sections 1, 2, 3)	<b>CEP1010: ISO 50001 Energy Management Systems</b>

## Assessment

This training module does not have a formal assessment. CEP runs a credential, assessed by examination for CEP1010: ISO 50001 Energy Management Systems, which operates independently of this training module. Completion of this module is not a pre-requisite for the formal assessment.

## Completion

The module will be considered completed and a digital “Completion” certificate will be available when the student has achieved a score of 75% or above in the Completion Quiz.