

CEP1013: Energy Markets and Procurement Module Outline “Self-directed” Online Training

Prerequisites

None

Recommended prior learning/experience

None

Description

This self-directed module on “Energy Markets and Procurement” aims to provide a comprehensive understanding of energy markets, focusing on both electricity and gas. It covers the structure of these markets, the key price drivers, and the mechanisms of energy purchasing. Learners will gain insights into energy spot pricing, the wholesale spot market, and the hedging of energy supply contracts. Additionally, the module will identify areas where demand management can be effectively implemented. It also includes an in-depth exploration of carbon pricing and the emissions trading scheme, equipping learners with the knowledge to navigate and apply these concepts in the context of energy management.

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.

Delivery mode

The training module consists of nine (9) videos, four (4) 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 nine (9) lessons and totals approximately four (4) hours of viewing time. Students will be required to undertake four (4) progression quizzes, which should take around five (5) minutes each.

Learning outcomes

By the end of the module, students should:

1. Understand market structures for both electricity and gas.
2. Recognise the key price drivers of energy.
3. Understand energy purchasing and how it works.
4. Understand energy spot pricing and the wholesale spot market.
5. Understand hedging of energy supply contracts.
6. Identify areas where demand management is useful.
7. Recognise and understand carbon pricing and the emissions trading scheme.

Module Structure and Progression

Lesson Outlines	
Lesson 1	Market Structures
	<p>Video duration: 30 minutes approximately.</p> <p>Content relates to learning outcomes 1:</p> <ul style="list-style-type: none"> • New Zealand's energy market • Energy sectors • Electricity market • Electricity market: key players • Gas market • Gas market: key players • Regulatory frameworks • Market challenges • Future outlook
Lesson 2	Energy Price Drivers
	<p>Video duration: 30 minutes approximately.</p> <p>Content relates to learning outcomes 2:</p> <ul style="list-style-type: none"> • Price breakdown • Line pricing • Market demand and supply • Renewables • Government regulations and policies • Global market trends • Challenges • Future trends
Progression Quiz 1	
Lesson 3	Energy Purchasing
	<p>Video duration: 25 minutes approximately.</p>

	<p>Content relates to learning outcomes 3:</p> <ul style="list-style-type: none"> • What is energy purchasing? • Energy purchasing for general consumers • Pricing factors for general consumers • Energy purchasing for industrial users • Regulatory frameworks • Energy market competition • Collaboration and partnerships
Lesson 4	Energy Spot Pricing
	<p>Video duration: 30 minutes approximately.</p> <p>Content relates to learning outcomes 4:</p> <ul style="list-style-type: none"> • Overview • Wholesale spot market • Periods and pricings • Market mechanisms • Spot pricing vs fixed-price contracts • Market trends and developments • Grid constraints • Market response
Lesson 5	Spot Market Dynamics
	<p>Video duration: 25 minutes approximately.</p> <p>Content relates to learning outcomes 5:</p> <ul style="list-style-type: none"> • Spot market price determination • Basic economics – supply and demand
Progression Quiz 2	
Lesson 6	Energy Supply Contracts
	<p>Video duration: 30 minutes approximately.</p> <p>Content relates to learning outcomes 5:</p> <ul style="list-style-type: none"> • What makes up a power bill? • Time of use pricing (TOU) • Energy supply contracts • Components of energy supply contracts • What is hedging? • Importance of hedging • Who participates in hedging? • Fixed-price variable volume (FPVV)
Lesson 7	Demand Management

	<p>Video duration: 30 minutes approximately.</p> <p>Content relates to learning outcomes 6, 7:</p> <ul style="list-style-type: none"> • What is demand management? • Benefits • Minimum load sizes • Control periods and peak demand • Demand reduction strategies • Technology and automation • Regulatory frameworks
Progression Quiz 3	
Lesson 8	Carbon Pricing
	<p>Video duration: 20 minutes approximately</p> <p>Content relates to learning outcome 7:</p> <ul style="list-style-type: none"> • New Zealand's emission profile • Electricity generation by energy source • Electricity emissions • Industrial emissions • Carbon pricing • Benefits • Types of carbon pricing • How does carbon pricing work? • Challenges • Impact on industrial users
Lesson 9	The Emissions Trading Scheme
	<p>Video duration: 30 minutes approximately</p> <p>Content relates to learning outcome 7:</p> <ul style="list-style-type: none"> • Overview and background • How emissions trading works • Brief history of the ETS • Core features • Price determination • Who participates? • Benefits • Challenges
Progression Quiz 4	
Completion Quiz	CEP1013: Energy Markets and Procurement



Assessment

This training module does not have a formal assessment. CEP runs a credential, assessed by examination for CEP1013: Energy Markets and Procurement, 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.