



Australian Government

UETDRSO014 Coordinate operations in a regulated energy market

Release: 1

UETDRSO014 Coordinate operations in a regulated energy market

Modification History

Release 1. This is the first release of this unit of competency in the UET Transmission, Distribution and Rail Sector Training Package Release 4.0.

Application

This unit includes the skills and knowledge required to coordinate operations in a regulated energy market in the electricity supply industry (ESI).

It includes energy market principles, procedures, and objectives, including electricity pool, market pricing concepts, bidding, scheduling and dispatching energy.

It also includes market fluctuations and interventions, network constraints, loss factors, and contractual obligations of service providers.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace.

Other conditions may also apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEEL0020 Solve problems in low voltage a.c. circuits

UEEEL0021 Solve problems in magnetic and electromagnetic devices

Competency Field

System Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to coordinate operations in a regulated energy market

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be done are reviewed and determined
- 1.2** Purpose of the coordination is established after data is analysed and expected outcomes of the work are confirmed with appropriate personnel
- 1.3** Systems modelling is used to evaluate and determine best outcomes for work plans in accordance with workplace requirements
- 1.4** Control procedures are discussed and communicated with appropriate personnel to establish workplan
- 1.5** Testing parameters are determined in accordance with workplace requirements
- 1.6** Work roles and tasks are allocated according to requirements and individual competencies
- 1.7** Work is prioritised and sequenced for completion in accordance with work plan and workplace requirements
- 1.8** Liaison and communication issues with others/authorised personnel, authorities and clients are resolved and activities coordinated to carry out work
- 1.9** Hazards are identified, risks assessed, and control measures identified and applied
- 1.10** Work permits are determined in accordance with workplace requirements

2 Coordinate operations in a regulated energy market

- 2.1** Legislation, regulations, standards, codes of practice and organisational workplace requirements for the work to be performed are applied and monitored
- 2.2** Work plans are evaluated and monitored for best outcomes in accordance with workplace requirements
- 2.3** Coordination decisions are made in accordance with best outcomes, safety control measures, and workplace

requirements

- 2.4** All stakeholders are kept informed of progress
 - 2.5** Incidents or unplanned events are responded to in accordance with workplace requirements
 - 2.6** Quality checks of work are undertaken in accordance with work plan and workplace requirements
- 3 Complete work and documentation**
 - 3.1** Completed work is checked for compliance against the work plan and workplace requirements
 - 3.2** Work records, reports and documentation are completed, and appropriate personnel notified in accordance with workplace requirements

Foundation Skills

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

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is not equivalent to UETDRSO003 Coordinate power system operations in a regulated energy market.

Links

Companion Volume Implementation Guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb13ecfad7>

Assessment Requirements for UETDRSO014 Coordinate operations in a regulated energy market

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two (2) separate occasions and include:

- applying relevant legislation, regulations, standards, codes of practice and organisational workplace requirements including:
 - work health and safety (WHS)/occupational health and safety (OHS) requirements
- identifying hazards, assessing risks, and identifying, applying and monitoring control measures
- dealing with an unplanned event on at least one (1) occasion
- obtaining and signing relevant work permits in accordance with workplace requirements
- completing relevant work records, reports and documentation
- demonstrating on at least three (3) occasions the following:
 - analysing energy market price data
 - placing bid depending on bid stack and dispatch
 - dispatching energy to the electricity market
 - responding to electricity market fluctuations
 - assessing network constraints
 - manipulating system for optimal energy dispatch.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- relevant legislation, regulations, standards, codes of practice and organisational workplace requirements, including WHS/OHS requirements
- hazard, risk assessment and risk control requirements, including possible hazards
- application, purpose and types of permits
- events constituting an unplanned event or incident
- procedures for responding to an unplanned event or incident
- workplace records, reports and documentation
- energy principles and practices

- sustainable energy principles and practices
- principles and objectives of the electricity market
- the role of ancillary services in the operation of the electricity market
- generation systems, including:
 - methods of generating electricity
 - types, characteristics, constraints
 - supply versus demand
- energy market principles, procedures, and objectives, including:
 - electricity pool
 - analysing energy market price
 - analysis of pricing concepts
 - service provider obligations
 - bidding
 - scheduling and dispatching energy
 - market fluctuations
 - network constraints
 - ancillary services
 - connection and access requirements
 - contractual obligations and operating agreements
 - market interventions
 - loss factors.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so.

Where this is not appropriate, assessment must occur in simulated conditions involving realistic and authentic activities that replicate operational workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- applicable documentation, including workplace requirements, relevant industry standards, equipment specifications, regulations, codes of practice, relevant modelling tools, drawings and operation manuals.

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