



Australian Government

UEPOPS443 Coordinate wind farm operations

Release: 1

UEPOPS443 Coordinate wind farm operations

Modification History

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Application

This unit involves the skills and knowledge required to coordinate the safe management of energy production at a wind farm.

A wind farm consists of a group of wind turbines in the same location used to produce electricity. Turbines at a wind farm are typically interconnected, with a substation transformer used to send the power to its grid destination.

Competency in this unit requires the ability to plan for plant operation, monitor wind farm operations, control wind farm electrical energy production, test wind farm operation, analyse system or plant faults and the completion of all documentation. Individuals will, in general, work as an operator at a wind farm with responsibilities for coordination activities.

Power generation plant operators are typically trained and authorised to isolate, prepare plant and issue permits to work.

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

Note: Workplace practice

The application of the skills and knowledge described in this unit may require a licence or training permit to practice in the workplace where work is carried out on gas and electrical installations. Additional conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

There are no prerequisite units.

Competency Field

Operations

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Plan for plant operation

1.1 Safety issues are identified, in accordance with workplace procedures, to comply with Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements

1.2 Work and wind farm plant and resource requirements are identified, in accordance with workplace procedures, from relevant information and documentation

1.3 Preoperational checks of wind farm plant and equipment are carried out, in accordance with workplace procedures

2 Monitor wind farm operations

2.1 Wind turbines and equipment are monitored for normal operation, in accordance with workplace procedures

2.2 Alarms are acknowledged, prioritised and responded to, in accordance with workplace procedures

2.3 Deviations from wind farm operations are identified and corrective actions are taken, in accordance with workplace procedures

2.4 Wind farm plant and equipment use is monitored in key areas and trends in problems are identified, in accordance with workplace procedures

3 Control wind farm electrical energy production

3.1 Wind farm energy output is controlled, in accordance with workplace procedures, to meet operational or load requirements of power generation facility

3.2 Wind turbines are manually adjusted to meet operation requirements, in accordance with workplace procedures and manufacturers' recommendations

3.3 Wind turbines are taken out of service and are shut down to meet operational and maintenance requirements, in accordance with workplace procedures and manufacturers' recommendations

3.4 Wind turbines are run-up and placed into service to meet operational requirements, in accordance with workplace

- procedures and manufacturers' recommendations
- 3.5** Appropriate personnel are notified, in accordance with workplace procedures, when wind turbine defects and abnormal operating conditions are detected
- 4 Test wind farm operation**
- 4.1** Wind farm operational tests are performed, in accordance with workplace procedures
- 4.2** Wind farm system and plant is observed for correct operational response, in accordance with workplace procedures
- 4.3** Corrective action is taken, in accordance with workplace procedures, when response does not meet with documentation, wind farm plant and system integrity or personnel safety requirements
- 4.4** Wind farm system and plant is returned to required operational status, in accordance with workplace procedures, upon completion of test
- 5 Analyse wind farm system and plant faults**
- 5.1** Causes of abnormal wind farm system operating conditions are identified, in accordance with workplace procedures, by analysing technical and operational information
- 5.2** Corrective actions to rectify faults are determined, in accordance with workplace procedures
- 5.3** Wind farm system and plant integrity and personnel safety are maintained, in accordance with workplace procedures, through consultation with personnel and technical and operational documentation
- 5.4** Appropriate personnel, including specialists, are arranged, in accordance with workplace procedures, for investigation of identified operational wind farm abnormalities
- 6 Complete documentation**
- 6.1** Wind farm plant problems, movements and status are reported, in accordance with workplace procedures
- 6.2** Documentation is updated, in accordance with workplace procedures

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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPOPS443A Coordinate Wind Farm Operations.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>