Overhaul distribution pole and tower hardware in electricity networks up to 66kV

Level	**4**
Credits	**6**

Purpose People credited with this unit standard are able to: prepare to overhaul pole and tower hardware in electricity networks up to 66kV; service and/or replace insulators on electricity networks up to 66kV; replace pole hardware on electricity networks up to 66kV; repair pole structures in electricity networks up to 66kV; and report work on overhauling distribution pole and tower hardware in electricity networks up to 66kV.

Subfield	Electricity Supply
Domain	Electricity Supply - Distribution Networks
Status	Registered
Status date	20 November 2009
Date version published	20 November 2009
Planned review date	31 December 2014
Entry information	Prerequisites: Unit 10508, *Identify electricity systems in preparation for work*; and Unit 10509, *Climb and work on electricity network structures*; or demonstrate equivalent knowledge and skills.
Replacement information	This unit standard replaced unit standard 10514 and unit standard 10515.
Accreditation	Evaluation of documentation and visit by NZQA and industry.
Standard setting body (SSB)	Electricity Supply Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0120

This AMAP can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Special notes

1 This unit standard is intended for, but not restricted to, workplace assessment.

2 Safety of personnel and plant must be a priority throughout the assessment. If the safety requirements are not met the assessment must stop.

3 Performance and work practices in relation to the elements and performance criteria must comply with all current legislation, especially the Electricity Act 1992, and any regulations and codes of practice recognised under that statute; the Health and Safety in Employment Act 1992; and the Resource Management Act 1991. Electricity supply industry codes of practice and documented industry procedures include the *Safety Manual – Electricity Industry (SM-EI)* (2004) Wellington: Electricity Engineers' Association. A full list of current legislation and industry codes is available from the Electricity Supply Industry Training Organisation, PO Box 1245, Hamilton 3240.

4 The phrase *in accordance with industry requirements* is implicit in all elements and performance criteria in this unit standard.

5 Definition
Industry requirements include all asset owner requirements; manufacturers' specifications; and enterprise requirements which cover the documented workplace policies, procedures, specifications, business, and quality management requirements relevant to the workplace in which assessment is carried out.

6 Range
Pole and tower hardware includes but is not limited to – conductors, cross arms, insulators and other components on poles, towers, and other transmission structures.

7 This unit standard excludes – high voltage maintenance using live line working procedures; and pole replacement using live line working procedures.

8 This unit standard requires demonstrated competence against all elements and performance criteria across the voltage range from 400V up to and including 66kV.

Elements and performance criteria

Element 1

Prepare to overhaul pole and tower hardware in electricity networks up to 66kV.

Performance criteria

1.1 Scope of work is interpreted.

Range may include but is not limited to – decision to repair or replace, cross arms, guys, insulators, anti climbing guards, arms, bolts, braces, guards, signs, steps, traffic control, cantilevers, floodlights, overhead fittings.

1.2 Site access is arranged.

Range includes but is not limited to – access permits, landowner authority, location.

Element 2

Service and/or replace insulators on electricity networks up to 66kV.

Performance criteria

2.1 Insulators are cleaned.

Range includes but is not limited to – wash, wipe.

2.2 Insulators are inspected.

Range chips, corrosion, cracks, contamination.

2.3 Insulators are serviced and/or replaced.

Element 3

Replace pole hardware on electricity networks up to 66kV.

Performance criteria

3.1 Hardware is selected.

Range rating, size, environment.

3.2 Mechanical load is supported.

Range may include but is not limited to – auxiliary arms, crane, hoist, winches.

3.3 Hardware is replaced.

3.4 Redundant hardware is removed from site.

Element 4

Repair pole structures in electricity networks up to 66kV.

Performance criteria

4.1 Method to repair pole structures is selected.

4.2 Pole is repaired.

Range may include but is not limited to – fungal control, paint, patching, pole nailing, re-tightening, strapping, bandaging, concrete repair.

Element 5

Report work on overhauling distribution pole and tower hardware in electricity networks up to 66kV.

Range includes but is not limited to – electrical line history, test reports and results, service report, work report, log book, replacement hardware and pole structure details, as built, contract, job sheets, variations.

Performance criteria

5.1 Reported information is complete, concise, and legible.

5.2 Information is recorded in the required format and filed in the correct location.

5.3 Hardware replacements are recorded.

5.4 Tower structure repairs are recorded.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Electricity Supply Industry Training Organisation info@esito.org.nz if you wish to suggest changes to the content of this unit standard.