

Unit ID: 2527

Domain

**ELECTRICAL METERING**

Title:

**Install Direct-on-line (DOL) energy metering devices**

Level: 3

Credits: 6

### Purpose

This unit standard is intended for those install Direct-on-line (DOL) energy metering devices. People credited with this unit standard are able to plan and prepare for work; install DOL energy metering devices; commission and certify electricity DOL energy metering devices; and clean-up work area.

This unit standard is intended for those who work as electrical-metering electricians.

### Special Notes

1. Entry information:

Prerequisite

- *None*

2. To demonstrate competence, at a minimum, evidence is required of install Direct-on-line (DOL) energy metering devices. One should perform these tasks ensuring selection and use of appropriate processes, tools and equipment and completing all work to specification.

3. Assessment evidence may be collected at a real workplace or a simulated workplace environment in which electrical metering work are carried out.

4. Performance of all elements in this unit standard must comply with industry standards and workplace requirements.

5. Glossary of terms:

- '*specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, workplace specific requirements, national and international standards and legislations
- '*DOL*' - Direct-on-line

6. Regulations and legislation relevant to this unit standard include the following:

- Labour Act, No. 11 of 2007 as amended
- Regulations relating to the health & safety of employees at work under Schedule 1 (2) of the Labour Act No.11 of 2007
- ISO 14001 (Environmental Management Standard)
- Namibia Electricity Safety Code. 2009: Electricity Act of 2007
- South African National Standard (SANS SANS 474:2006 Edition 1 and NRS 057:2005 Edition 1) Code of practice for electricity metering

## **Quality Assurance Requirements**

This unit standard and others within this subfield may be awarded by institutions, which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on [www.nta.com.na](http://www.nta.com.na)

## **Elements and Performance Criteria**

### **Element 1: Plan and prepare for work**

#### **Performance criteria**

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and interpreted.
- 1.2 Signage and barricade requirements are identified and implemented, where necessary.
- 1.3 Personal protective equipment is selected in line with job and safety requirements
- 1.4 Tools and equipment selected to carry out tasks are consistent with job requirements, checked for serviceability, and any faults are rectified or reported prior to commencement.
- 1.5 Material quantity requirements are calculated in line with plans, specifications and quality requirements.
- 1.6 Environmental protection requirements are identified and applied in line with environmental plans and regulatory obligations.

### **Element 2: Install DOL energy metering devices**

#### **Range**

Installation requirements include but is not limited to consent requirements, load requirements, tariff and access.

Energy metering devices include but is not limited to Ferraris disc, solid state non time-of-use and solid state time-of-use.

#### **Performance Criteria**

- 2.1 DOL energy metering devices are installed in accordance with industry requirements.
- 2.2 Designs and drawings are verified and applied to the installation in accordance with industry requirements.

- 2.3 DOL energy metering devices operation is confirmed in accordance with industry requirements.
- 2.4 Installation requirements are determined and applied in accordance with industry requirements.

### **Element 3: Commission and certify electricity DOL energy metering devices**

#### **Range**

Commissioning checks may include but is not limited to phasing checks, polarity tests and wiring sequence checks.

Reported information may include but is not limited to job sheet, daily diary, log book and certification report.

Communication may include but is not limited to meter removal, meter downloads, recording the removed meter data, forwarding data to stakeholders and meter returns.

Stakeholders may include but not limited to customers and electricity supply industry.

#### **Performance Criteria**

- 3.1 Commissioning checks are carried out in accordance with the prepared work plan and industry requirements.
- 3.2 DOL energy metering devices is tested in accordance with industry requirements and standards.
- 3.3 DOL energy meter devices operation is confirmed in accordance with industry requirements.
- 3.4 DOL energy metering devices is commissioned in accordance with industry requirements.
- 3.5 Installation information is recorded in the required format and filed within the scheduled time-frame in accordance with industry requirements.
- 3.6 Installation information is communicated to the relevant stakeholders in accordance with industry requirements.

### **Element 4: Clean-up work area**

#### **Performance Criteria**

- 4.1 Work area is cleared, cleaned, restored and secured in line with workplace procedures.
- 4.2 Tools and equipment are cleaned, checked and stored in line with manufacturer specifications and workplace procedures.
- 4.3 Materials and wastes are disposed of, reused, or recycled in accordance with legislation, regulations, codes of practice and job specifications.

### **Registration Data**

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|--------------------------------------|----------------------------|
| <b>Subfield:</b>                     | Electrical Engineering     |
| <b>Date first registered:</b>        | 23 November 2023           |
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