

Domain: BUILDINGS AND FIXTURES
Title: Demonstrate an understanding of energy sources used on a farm

Level:2

Credits: 2

Purpose

This unit standard specifies the competencies required to understand various energy sources on the farm. It specifies competencies required to:

- Demonstrate knowledge of energy sources used on a farm
- Demonstrate knowledge of electricity use on a farm
- Demonstrate knowledge of solar power use on a farm
- Demonstrate knowledge of biogas use on a farm
- Demonstrate knowledge of wood and charcoal use on a farm
- Demonstrate knowledge of diesel use on a farm.

This unit standard is intended for people who work in agriculture as well as people in other occupations that work with energy sources.

Special Notes

1. Entry information:

Prerequisites:

- None

2. This unit standard is to be delivered and assessed in the context of agricultural operations and can be assessed in conjunction with other relevant technical unit standards.

The evidence required to demonstrate competency in this unit must be relevant to workplace operations.

3. Assessment evidence may be collected from a real workplace or an appropriate simulated environment in which agricultural operations are carried out.

4. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.

5. Glossary of terms

- '*Energy sources*' may include but are not limited to electricity, diesel, solar, wood, charcoal and biogas.
- '*Workplace procedures*' may include but are not limited to work notes, plans, product labels, manufacturer's specifications, operator's manuals, safety plans, fire control, waste disposal, recycling, re-use guidelines and supervisors oral or written instructions.
- '*Safety requirements*' may include but are not limited to the safe use of hand and power tools and equipment, manual handling, the handling of hazardous substances, outdoor work and the use of personal protective equipment.

- 'Hazards' may include but are not limited to, uneven surfaces, manual handling, hazardous substances, solar radiation, tools and equipment, dusts, hazardous noise, moving machinery and vehicles.
- 'Personal Protective Equipment (PPE)' may include but is not limited to boots, rubber boots, hat, overalls, gloves, eye and hearing protection and sun protection.

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

- Labour Act, No. 11, 2007
- Regulations relating to the Health and Safety of employees at work, 1997
- Environmental Management Act-No: 7 of 2007
- Standards Act, 2005, Standards Regulations: Standards Act, 2005 and relevant Namibian Standards as established

and all subsequent amendments to any of the above.

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 on www.namqa.org.na and the Namibia Training Authority on www.nta.com.na.

Elements and Performance Criteria

Element 1. Demonstrate knowledge of energy sources used on a farm

Performance Criteria

- 1.1 Types of energy sources on the farm are described.
- 1.2 Energy sources used in Namibia on the farm are identified and described.
- 1.3 Uses of energy sources on the farm are identified.

Element 2. Demonstrate knowledge of electricity use on the farm

Performance Criteria

- 2.1 Electric appliances used on the farm in Namibia are identified.
- 2.2 Parts and functions of the electric appliances used on the farm are identified.

Element 3. Demonstrate knowledge of solar power use on the farm

Performance Criteria

- 3.1 Operation of solar power on the farm is described.
- 3.2 Solar appliances used on the farm in Namibia are identified.

3.3 Parts and functions of the solar appliances used on the farm are identified.

Element 4. Demonstrate knowledge of biogas use on the farm

Performance Criteria

- 4.1 Operation of biogas used on the farm is described.
- 4.2 Biogas appliances on the farm in Namibia are identified.
- 4.3 Parts and functions of the biogas used on the farm are identified.

Element 5. Demonstrate knowledge of wood and charcoal use on the farm

Performance Criteria

- 5.1 Operation of wood and charcoal appliances used on the farm is described.
- 5.2 Wood and charcoal appliances used on the farm in Namibia are identified.
- 5.3 Parts and functions of the wood and charcoal appliances used on the farm are identified.

Element 6. Demonstrate knowledge of diesel use on the farm

Performance Criteria

- 6.1 Operation of diesel appliances used on the farm is described.
- 6.2 Diesel appliances used on the farm in Namibia are identified.
- 6.3 Parts and functions of the diesel appliances used on the farm are identified.

Registration Data

Subfield:	Infrastructure
Date first registered:	25 November 2015
Date this version registered:	25 November 2015
Anticipated review:	2020
Body responsible for review:	Namibia Training Authority