



**REPUBLIC OF KENYA**

**NATIONAL OCCUPATIONAL STANDARDS**

**FOR**

**ELECTRICAL ENGINEERING TECHNICIAN (POWER OPTION)**

**KNQF LEVEL: 6**

**ISCED OCCUPATIONAL STANDARD CODE: 0713 554B**



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NAIROBI

## MANAGE AN ELECTRICAL PROJECT

UNIT CODE: ENG/OS/PO/CR/09/6/B

### UNIT DESCRIPTION

This unit covers the competencies required to manage an Electrical project. Competencies includes; preparation of work plans and policies, managing project team, managing material, tools and equipment, managing project budget, supervising and assessing project implementation, preparing project reports and commissioning.

### ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <i>(Bold and italicised terms are elaborated in the Range)</i>
1. Prepare work plans and policies	1.1 Identify the scope of the work plan as per the nature of the project 1.2 Goals and objectives are established as per the nature of the project 1.3 <b>Resources</b> required are identified as per the nature of the project 1.4 Project <b>logistics</b> are established as per the its nature 1.5 Organization structure is developed as per the nature of the project 1.6 <b>Policies</b> are developed as per the project standard operating procedure 1.7 Time span is established as per the complexity of the project
1. Manage Project team	1.1 Project team is identified as per the scope and area of specialization. 1.2 Job descriptions of the team are developed as per the nature of the project 1.3 Objectives of the project are communicated to the team as per the project policies. 1.4 Project activities are delegated in line with the standard operating procedure 1.5 OSHA is adhered to as per the nature of the project 1.6 Project team is trained on project activities as per the nature of the project

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	1.7 EHS is adhered to in line with the complexity of the project 1.8 <b>SWOT</b> analysis is performed as per the nature of the project
2. Manage materials, tools and equipment	2.1 Tools, materials and equipment are identified as per the project activities 2.2 Auditing of tools, materials and equipment is performed as per the scope of the project 2.3 Tools, material and equipment inventory system is developed as per the nature of the project 2.4 Tools, materials and equipments are classified as per the project activities 2.5 Tools, materials and equipment are maintained in line with project policies. 2.6 EHS standards are adhered to in line work place procedures
3. Manage project budget	3.1 Cost control mechanism is developed as per the scope of the project 3.2 Miscellaneous activities are recorded as per the budget developed 3.3 Resource distribution is performed as per the project plan 3.4 Routine activities on budget implementation is communicated to the relevant parties as per the project policies
4. Supervise and assess project implementation	4.1 Monitoring of project activities as per the project work plan 4.2 <b>Activities</b> are delegated to team with their order of priority as per the project plan. 4.3 Quality of work is assessed as per the project standard operating procedures 4.4 Direct the team on the expected output as per the work plan

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	4.5 Short range action steps are planned for as per project activities
5. Prepare project reports	5.1 Progress reports are prepared as per the project activities 5.2 Progress reports are shared with the relevant parties 5.3 Project operation manual are documented and shared with the relevant parties
6. Project commissioning	6.1 Hand over documents are prepared and submitted to the relevant parties as per contract 6.2 Training of the project user is conducted as in line with the project operation manual

## **RANGE**

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

<b>Variable</b>	<b>Range</b>
1. Resources may include but is not limited to:	<ul style="list-style-type: none"> <li>• Finance</li> <li>• Personnel</li> <li>• Consultancy</li> <li>• Materials</li> <li>• Tools</li> <li>• Storage facilities</li> <li>• Buildings</li> </ul>
2. Logistics may include but is not limited to:	<ul style="list-style-type: none"> <li>• Transport</li> <li>• Security</li> <li>• Communication</li> </ul>

Variable	Range
<p>3. Policies may include but is not limited to:</p>	<ul style="list-style-type: none"> <li>• Work injury benefit act</li> <li>• Disability policy</li> <li>• Gender policy</li> </ul>

## **REQUIRED KNOWLEDGE AND UNDERSTANDING**

*The individual needs to demonstrate knowledge and understanding of:*

- The manufacturer's warranty requirements relating to project management activities
- The legal and statutory requirements relating to project management.
- workplace procedures relevant to:
  - health and safety;
  - the environment (including waste disposal);
  - appropriate personal and protective equipment;
- Workplace procedures for:
  - Appropriate use of tools and equipment;
  - Recording project activities
  - Project quality control evaluation process
  - Reporting of technical challenges
- The importance of documenting project implementation report
- The importance of working within agreed timelines and sharing progress reports.
- The relationship between time and costs.
- The importance of reporting anticipated delays to relevant parties promptly.
- How to find, interpret and use sources of technical information for project activities
- The importance of using the correct sources of technical information.

## **FOUNDATION SKILLS**

The individual needs to demonstrate the following foundation skills:

- Communications (verbal and written);
- Proficient in ICT;
- Time management;
- Analytical
- Faults troubleshooting;
- Problem solving;
- Planning; Decision making;
- First aid;
- Report writing;
- Project management

## EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and understanding and range.

1. Critical Aspects of Competency	<b>Assessment requires evidence that the candidate:</b> 1.1 Identified the resources required in a project 1.2 Prepared a project plan 1.3 Managed the project budget as per the project scope 1.4 Wrote and shared project report 1.5 Delegated project activities to the team 1.6 Assessed project quality and documented the results 1.7 Planned for project logistics
2. Resource Implications	<b><i>The following resources must be provided:</i></b> 2.1 Finance 2.2 Personnel 2.3 Consultancy 2.4 Materials 2.5 Tools  Resources the same as that of workplace are advised to be applied
3. Methods of Assessment	<b>Competency may be assessed through:</b> 3.1 Oral test 3.2 Observation 3.3 Practical demonstration
4. Context of Assessment	Competency may be assessed 4.1 On Job 4.2 Off Job 4.3 During Industrial Attachment
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.