


SKILLS PROGRAMME DOCUMENT							
Skills Programme Title		Renewable Energy Workshop Assistant					
NQF Level	4	Credits	24	Duration in days	30 Days		
Skills Programme ID Number		SP-210602					
Skills Programme Status	Approved			Start Date	End Date		
				22/06/2021	22/06/2026		
Last date for enrolment	22/06/2027	Last date for achievement			22/06/2030		

SKILLS PROGRAMME DETAILS

Title	Renewable Energy Workshop Assistant
Sub Title	Learners entering this skills programme will feed into all Renewable Energy Occupations in industry as: -Solar Photovoltaic Service Technician, -Solar Water Heater Installer, and -Wind Turbine Service Technician. -Electrician
NQF Level	4
Duration	30 days
Credits	24
Quality Assuring Body	Quality Council for Trades and Occupations (QCTO)
Skills Rationale	<p>As the demand for renewable energy continues to increase, the industry is looking to recruit high-calibre candidates to employ in Renewable Energy industry.</p> <p>The purpose of this skills programme is to prepare a learner to operate as a Renewable Energy Workshop Assistant.</p> <p>No similar skills programme is already approved and listed by the QCTO in renewable energy and/or related occupations yet.</p> <p>A Renewable Energy Workshop Assistant will be able to identify, select, use, care for, hand and power tools within a Renewable Energy environment.</p> <p>The qualifying learner will know the functioning and operating requirements for hand and power tools, to monitor quality conformance; including health, safety and environmental requirements.</p>

	<p>The benefit to Renewable Energy sector is sector to address inequalities and to grow the economy, by enabling community reskilling and upliftment of an individual or society with providing employable skills</p> <p>The typical learners for the skills programme is employed and unemployed South Africans, including those employed or previously employed in low-skilled occupations.</p> <p>A consortium of sector organisations, including Green Cape, Centre for Renewable and Sustainable Energy Studies and South African Wind Energy Association, conducted and supported earlier studies by identifying the need for training in the Renewable Energy sector in South Africa. Bodies.</p>
<p>Related registered qualification/s</p>	<p>Occupational Certificate: Solar Photovoltaic Service Technician</p> <p>Occupational Certificate: Hot Water System Installer (Solar Water Installer)</p> <p>Occupational Certificate: Wind Turbine Service Technician</p>
<p>Purpose</p>	<p>The purpose of this skills program is to prepare a learner to operate as a Renewable Energy Workshop Assistant.</p> <p>A Renewable Energy Workshop Assistant plans, prepares and assists service technicians with installation, maintenance and component assembly for Renewable Energy processes, systems, facilities and equipment.</p> <p>A qualified learner will be able to:</p> <p>Identify, select, use, care for hand, power and measuring tools and testing instruments used by Renewable Energy Service Technicians, Installers and Mounters, within a renewable energy installation and maintenance environments.</p> <p>Know the functioning and operating requirements of hand tools, power tools and measuring and testing instruments, to monitor quality conformance; including health, safety and environmental requirements.</p>

Content	<u>Knowledge component</u>	<u>Application component</u>
	<p><u>Topic 1</u> Introduction to Renewable Energy.</p> <p><u>Topic 2</u> Overview of renewable energy.</p> <p><u>Topic 3</u> Legislative and economic frameworks.</p> <p><u>Topic 4</u> Legislation and regulations for workplace safety pertaining to Renewable Energy</p> <p><u>Topic 5</u> Occupational health and safety legislation</p> <p><u>Topic 6</u> Safety precautions and safe practices for working within</p>	<p><u>Topic 1</u> Mitigate and respond to hazards</p> <p><u>Topic 2</u> Select, use and care of engineering hand tools</p> <p><u>Topic 3</u> Select, use and care for power tools and equipment</p> <p><u>Topic 4</u> Perform marking-off activities</p> <p><u>Topic 5</u> Select, use and care for mechanical instruments</p> <p><u>Topic 6</u> Rivet materials together</p> <p><u>Topic 7</u> Perform soft soldering activities</p> <p><u>Topic 8</u> Lift loads</p>

	<p>industry and PV sites (including electrical burns)</p> <p><u>Topic 7</u> Personal protective equipment</p> <p><u>Topic 8</u> Safety symbols and colour coding</p> <p><u>Topic 9</u> Fundamentals of isolating and locking out equipment and processes</p> <p><u>Topic 10</u> Fundamentals of securing worksites</p> <p><u>Topic 11</u> Protection devices</p> <p><u>Topic 12</u> Causes, prevention and control of fires</p> <p><u>Topic 13</u> Hazard identification and risk principles</p> <p><u>Topic 14</u> Environmental protection and pollution concepts</p> <p><u>Topic 15</u> Incident reporting</p> <p><u>Topic 16</u> Evacuation procedures</p> <p><u>Topic 17</u> Company or worksite safety procedures</p> <p><u>Topic 18</u> Prolonged exposure to radiation (PPE)</p> <p><u>Topic 19</u> Fundamentals of electricity</p> <p><u>Topic 20</u></p>	
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	<p>International System of Units (SI) symbols, atomic structure and electronic terms</p> <p><u>Topic 21</u></p> <p>Hand tools and power tools</p> <p><u>Topic 22</u></p> <p>Marking-off equipment</p> <p><u>Topic 23</u></p> <p>Lifting equipment</p> <p><u>Topic 24</u></p> <p>Soldering equipment and wiring techniques</p> <p><u>Topic 25</u></p> <p>Equipment for riveting</p>	
Minimum entry requirements	NQF Level 1	
Exit Level Outcomes	<p>EXIT LEVEL OUTCOME 1</p> <p>Select the appropriate hand, power or measuring tool/tools for a variety of tasks.</p> <p>EXIT LEVEL OUTCOME 2</p> <p>Inspect and prepare hand or power tool/tools for use</p> <p>EXIT LEVEL OUTCOME 3</p> <p>Use hand, power or measuring tools to perform a variety of tasks</p> <p>EXIT LEVEL OUTCOME 4</p> <p>Maintain, care for and store tools</p> <p>EXIT LEVEL OUTCOME 5</p> <p>Report damaged or worn tools</p> <p>EXIT LEVEL OUTCOME 6</p> <p>Work safely with due care for self, others, equipment, materials and the environment</p>	
Assessment	<p>Continuous Assessment</p> <p><u>Written test</u></p> <ul style="list-style-type: none"> • Identify the appropriate hand, power or measuring tool/tools for a variety of tasks • Discuss how to Maintain, care for and store tools • Complete a report of damaged or worn tools 	

	<p><u>Practical</u></p> <ul style="list-style-type: none"> • Selecting the appropriate hand, power or measuring tool/tools for a variety of tasks. • Inspecting and preparing hand or power tool/tools for use • Use hand, power or measuring tools to perform a variety of tasks • Maintain, care for and store tools • Report damaged or worn tools <p>Supervised Assessment</p> <p><u>Practical</u></p> <ul style="list-style-type: none"> • Work safely with due care for self, others, equipment, materials and the environment • Selecting the appropriate hand, power or measuring tool/tools for a variety of tasks. • Inspecting and preparing hand or power tool/tools for use • Use hand, power or measuring tools to perform a variety of tasks • Maintain, care for and store tools • Report damaged or worn tools
<p>Recognition of Prior Learning (RPL)</p>	<ul style="list-style-type: none"> • Learners will gain access to the skills programme through RPL for Access as provided for in the QCTO RPL Policy. RPL for access is conducted by an accredited institution, skills development provider or workplace accredited to offer that specific skills programme. • Learners who have already acquired competencies of modules of a skills programme will be exempted from modules through RPL. Such learners will be awarded credits towards the skills programme. • Learners who complete this skills programme will accumulate credits towards the relevant full or part qualification. The Credit Accumulation and Transfer (CAT) Policy shall apply to these learners
<p>Work Opportunities and further learning</p>	<p>Learner completing this Skills Program can be employed in the Renewable Energy Sector as well as access further learning to qualify as a certified service technician in Renewable Energy occupations</p>

<p>Skills Development Provider Accreditation Requirements</p>	<p>Human Resource Requirements:</p> <ul style="list-style-type: none"> • Trainer to learner ratio of 1:12. • Workshop assistant to learner ratio 1 to 12. • Trainer/Facilitator with relevant trade related experience or appropriate occupational trainer course <p>Physical Requirements:</p> <p>Access to all relevant equipment and materials for the skills programme</p> <p>Training manuals and other relevant documentation, manufacturer's manuals and specifications.</p> <p>A quality management system</p> <p>Adequate area to accommodate the number of learners, as prescribed by the OHS Act, that is well lit and well ventilated.</p> <p>Legal Requirements:</p> <p>Compliance with relevant occupational health, safety and environmental regulations</p> <p>Safety Requirements:</p> <p>Compliance with the OHS Act</p>
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