



SARETEC
SOUTH AFRICAN RENEWABLE
ENERGY TECHNOLOGY CENTRE

INTRODUCTION

SVEN PIETRANGELI
OPERATIONS MANAGER

www.saretec.org.za

AN INITIATIVE OF:



MANAGED BY:



SUPPORTED BY:



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SARETEC INTRO

- NATIONAL CENTRE
- DHET PROJECT – NSF FUNDED
- INVESTED R+100M
- SKILLS FOCUS LEVEL – NQF5+
- AREAS: WIND, SOLAR, ENERGY EFF AND BIOMASS
- INDUSTRY SUPPORT–REFERRAL
- OPERATIONAL FEBRUARY 2016

STRATEGIC VISION

A Global Leader in Renewable Energy related Training

MISSION STATEMENT

The provision of accredited and recognised training in wind, solar, biomass and energy efficiency delivered in a world class training facility with a focus on producing high quality technicians for the renewable energy industry



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Formal qualification structure



merSETA
MANUFACTURING, ENGINEERING
AND RELATED SERVICES SETA

merSETA as the Quality
Development Partner
develops the curriculum



Supported the
development process of
Service Technician
Qualifications



Issues SAQA ID number
and publishes the QCTO
format qualification on
their web page

Timeframe - 2012 – on going



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FORMAL QUALIFICATIONS

- **WIND TURBINE SERVICE TECHNICIAN (APPROVED)**
 - Current (2016)
- **SOLAR PV SERVICE TECHNICIAN (APPROVED)**
 - Current - Formal training to start (2017)
- **ENERGY EFFICIENCY TECHNICIAN**
 - Under development / Partnerships (2017)
- **BIOGAS/MASS – CURRICULUM UNDER DEVELOPMENT**
 - Under development / Partnerships (2018+)



Qualification approved 25 Aug 2016 – Awaiting SAQA code



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EXAMPLE : WIND TURBINE SERVICE TECHNICIAN (SAQA)

Duration

5 months course work and 2 months in-service training at a wind farm

Course Outline

Wind energy technology

Health and safety

Wind turbine electrics

Wind turbine mechanics

Hydraulics

Rotor blade repair

Control systems

Etc....



GLOBAL WIND ORGANISATION



WIND TURBINE SERVICE TECHNICIAN (SAQA)

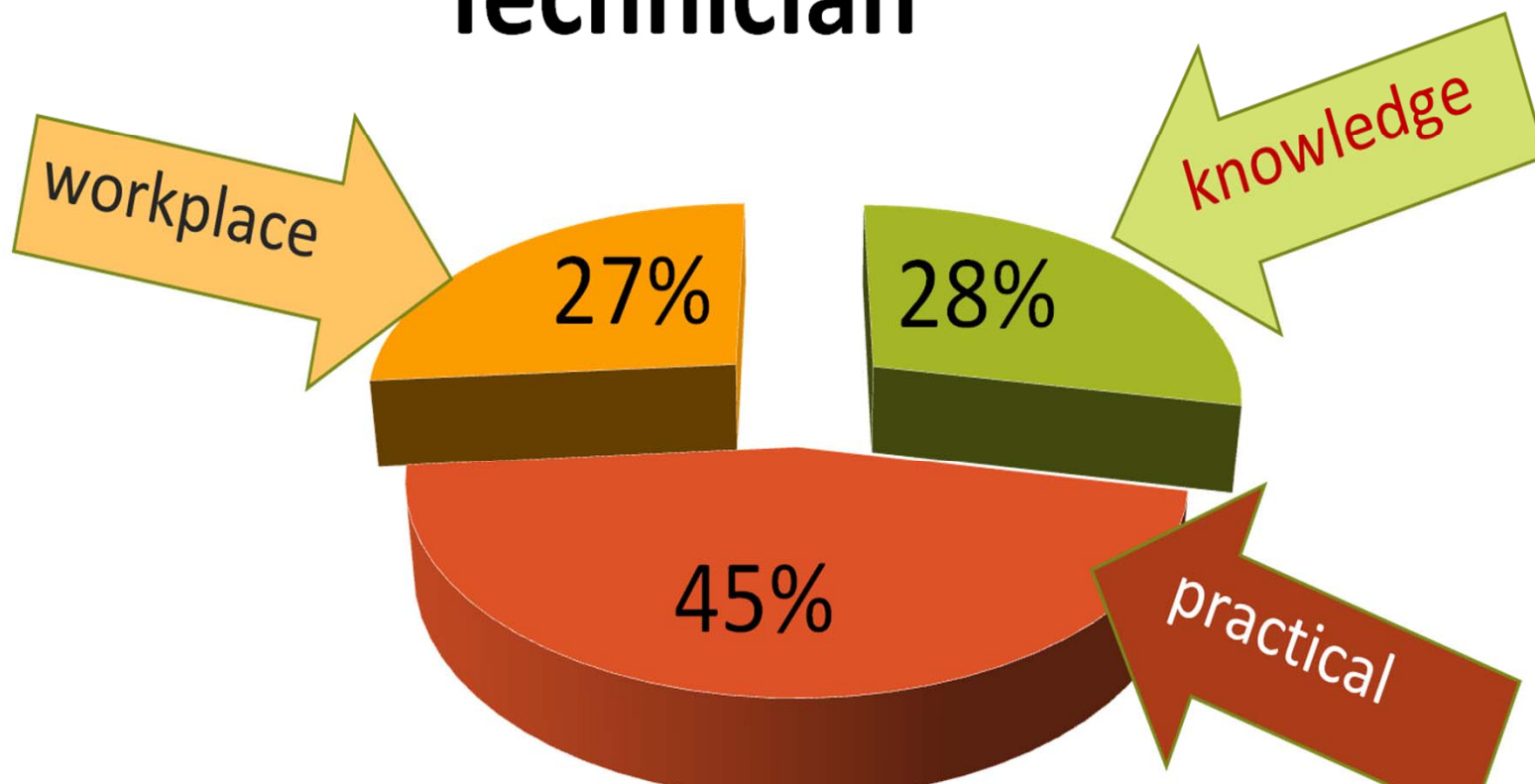
Sample

Wind Turbine Service Technician Module breakdown	
KM-01-KT01	Theories and principles of environmental protection within a wind farm (40)
KM-02	Wind Turbine Technology NQF level 5 Cr 26
KM-02-KT01	Concepts, theories and principles of wind energy (40)
KM-03	Principles of Occupational Health and Safety NQF level 3 Cr 4
KM-02-KT03	Functional principle and service of IT systems for management, monitoring and operation of wind turbines and wind farms
PM-06-PS05	Diagnose and address malfunctions of Programmable Logic Controllers (PLC)



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Wind Turbine Service Technician





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TRAINING SO FAR?

- To date SARETEC has trained:
 - 22 Wind Turbine Service Technicians – BFW (Germany) 2014, 2015
 - (SARETEC was under construction 2014-15)
 - 11 Wind Turbine Service Technicians – SARETEC (South Africa) 2016 Semester 1
 - 18 Wind Turbine Service Technicians – SARETEC (South Africa) 2016 Semester 2 CURRENT
 - +10 Planned Feb – Jun 2017
- **All formal courses consist of a collection of short courses. The current Wind Turbine Service Technician (WTST) programme is such a collection.**



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SHORT COURSES

- Example: The WTST programme includes short courses such as:
 - Composite materials training
 - Hydraulic system training
 - Rigging training
 - Lightning protection training
 - Bolting and joint technology training
 - Etc.....
 - Transferable skills to other industries
- NB! (Taylor made as OEM requires)
- Facilitating and assisting – example WASA

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GWO - OEM – BMT programme (2017)

Basic Maintenance Training Standard



- Basic Safety Training
- Basic Maintenance Training



GLOBAL WIND ORGANISATION



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National Support

How?

- Training material development
- RPL route development or formal qualification
- Allow 'train the trainer' options
- Assist with short courses
- Basic QA function
- Enquiries and referrals

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THANK YOU

QUESTIONS OR COMMENTS



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