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**SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)**

In accordance with Regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Engineering

registered by Organising Field 06 – Manufacturing, Engineering and Technology, publishes the following Unit Standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Unit Standards. The full Unit Standards can be accessed via the SAQA web-site at www.saga.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Unit Standards should reach SAQA at the address below and **no later than 11 April 2008**. All correspondence should be marked **Standards Setting – Engineering** and addressed to

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SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Quantify the benefit of proposed energy interventions on energy equipment

SAQA US ID	UNIT STANDARD TITLE		
254374	Quantify the benefit of proposed energy interventions on energy equipment		
ORIGINATOR	PROVIDER		
SGB Engineering			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Engineering and Related Design		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 6	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Calculate energy efficiency on a variety of design parameters.

SPECIFIC OUTCOME 2

Calculate economic and environmental benefits of proposed energy interventions.

SPECIFIC OUTCOME 3

Calculate the impact of variables that affect equipment energy performance criteria.

SPECIFIC OUTCOME 4

Identify the most technically feasible energy solution for a specific situation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Sustain performance of energy systems***

SAQA US ID		UNIT STANDARD TITLE	
254318		Sustain performance of energy systems	
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 6	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Guide operation and maintenance practices for sustainable energy.

SPECIFIC OUTCOME 2

Test and evaluate energy performance.

SPECIFIC OUTCOME 3

Correct poor energy performance.

SPECIFIC OUTCOME 4

Conduct specific energy investigations.

SPECIFIC OUTCOME 5

Sustain energy performance.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Implement technology for sustainable energy

SAQA US ID	UNIT STANDARD TITLE		
254336	Implement technology for sustainable energy		
ORIGINATOR	PROVIDER		
SGB Engineering			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Engineering and Related Design		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 7	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify and justify proven technology for sustainable energy.

SPECIFIC OUTCOME 2

Model, target and monitor energy performance.

SPECIFIC OUTCOME 3

Diagnose causes of poor energy performance.

SPECIFIC OUTCOME 4

Implement solutions to improve energy performance.

SPECIFIC OUTCOME 5

Compile best practice procedures for sustainable energy.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Develop an energy management strategy***

SAQA US ID		UNIT STANDARD TITLE	
254334		Develop an energy management strategy	
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 7	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Develop energy procurement and delivery strategies.

SPECIFIC OUTCOME 2

Develop energy technology strategies.

SPECIFIC OUTCOME 3

Improve organisational energy management profiles.

SPECIFIC OUTCOME 4

Quantify energy impact on resources and the environment.

SPECIFIC OUTCOME 5

Introduce best practices for end-use of energy.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Quantify the benefit of proposed energy changes on integrated facilities***

SAQA US ID		UNIT STANDARD TITLE	
254354		Quantify the benefit of proposed energy changes on integrated facilities	
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 7	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Calculate energy efficiency on a variety of system design parameters.

SPECIFIC OUTCOME 2

Calculate economic and environmental benefits of proposed systems level energy projects.

SPECIFIC OUTCOME 3

Calculate the impact of variables that affect system energy performance criteria.

SPECIFIC OUTCOME 4

Identify the risks associated with the proposed systems level energy solutions.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Design sustainable solutions for energy resources***

SAQA US ID		UNIT STANDARD TITLE	
254339		Design sustainable solutions for energy resources	
ORIGINATOR		PROVIDER	
SGB Engineering			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Engineering and Related Design	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 8 and above	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Assess designs for sustainable energy.

SPECIFIC OUTCOME 2

Assess management strategy for sustainable energy.

SPECIFIC OUTCOME 3

Assess operational procedures for sustainable energy.

SPECIFIC OUTCOME 4

Create sustainable energy solutions.

SPECIFIC OUTCOME 5

Build capacity to achieve sustainable energy.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

None