

**SOUTH AFRICAN POLICE SERVICE
SUPPLY CHAIN MANAGEMENT (SCM)**



**PLEASE NOTE: IF YOU ARE NOT CIDB
REGISTERED YOUR QUOTATION WILL
BE DISQUALIFIED DURING EVALUATION**

Quotation Number: NIEWOUDTVILLE 01/2026

**Appointment of a contractor for the Supply, Installation,
Commissioning and Maintenance service of a Standby
Generator for Nieuwoudtville Police Station: Northern
Cape Province**

Name of Company: _____

PART A

REQUEST FOR QUOTATION

1. YOU ARE HEREBY INVITED TO QUOTE FOR REQUIREMENTS OF THE SOUTH AFRICAN POLICE SERVICE					
QUOTE NUMBER:	NIEUWOUGTVILLE 01/2025	CLOSING DATE:	2026-10-08	CLOSING TIME:	11:00
DESCRIPTION:	APPOINTMENT OF A CONTRACTOR FOR THE SUPPLY, INSTALLATION, COMMISSIONING AND MAINTENANCE SERVICE OF A STANDBY GENERATOR FOR NIEUWOUDTVILLE POLICE STATION: NORTHERN CAPE PROVINCE				
2. QUOTATION RESPONSE DOCUMENTS MAY ONLY BE SUBMITTED ONLINE AT NATIONAL TREASURY E-TENDER WEBSITE:			3. QUOTATION RESPONSE DOCUMENTS MAY BE E-MAILED TO:		
Quotation documents are not to be altered and electronically typed, but printed, filled in and submitted online via National Treasury E-Tender Portal Website. Only Quotations responses received by the South African Police Service online via National Treasury E-Tender Portal Website will be considered. No manual / hand delivery responses will be accepted or considered by the South African Police Service. Bidders / contractors who submitted manual / hand delivery responses will be disqualified.			N/A		
4. QUOTATION PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			5. TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Captain Mohlala		CONTACT PERSON	Captain L Mtshweni	
TELEPHONE NUMBER	012 841 7358		TELEPHONE NUMBER	012 349 6058	
E-MAIL ADDRESS	MohlalaKK@saps.gov.za		E-MAIL ADDRESS	Mtshweni@saps.gov.za	
6. SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE NUMBER:	MAAA
CENTRAL SUPPLIER DATABASE REGISTRATION REPORT	[TICK APPLICABLE BOX] ☐ Yes ☐ No				

PART B TERMS AND CONDITIONS FOR QUOTATION

1. QUOTATION SUBMISSION: 1.1. QUOTATIONS MUST BE SUBMITTED ONLINE VIA NATIONAL TREASURY E-TENDER PORTAL WEBSITE BY THE STIPULATED TIME. LATE QUOTATIONS WILL NOT BE ACCEPTED FOR CONSIDERATION. 1.2. ALL QUOTATIONS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED – (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE QUOTATION DOCUMENT. 1.3. BIDDERS AND SUBCONTRACTORS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). 1.4. WHERE A BIDDER OR SUB CONTRACTOR IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY NOT BE SUBMITTED WITH THE BID DOCUMENTATION. 1.5. THIS QUOTATION IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
2. TAX COMPLIANCE REQUIREMENTS 2.1 BIDDERS AND SUB CONTRACTORS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. 2.2 BIDDERS AND SUB CONTRACTORS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS. 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA. 2.4 BIDDERS AND SUB CONTRACTORS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. 2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDERER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. GENERAL 3.1 NO QUOTATION WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE QUOTATION INVALID.

SIGNATURE OF BIDDER: _____

CAPACITY UNDER WHICH THIS BID IS SIGNED: _____
(Proof of authority must be submitted e.g. company resolution)

DATE: _____

CONTENTS OF QUOTATION DOCUMENT

Please ensure that you received all pages of this document which consists of the following sections:

PART T: TENDER	Document number
Part T1: Tendering procedures.	
Notice and Invitation to Tender	T 1.1
Tender Data	T1.2
Part T2: Returnable documents <u>including part C1, C2 and C3</u>	
List of Returnable Documents	T2.1
Resolution of Board of Directors	T2.1.1
Compulsory Clarification Meeting Certificate	T2.1.2
Schedule of Sub-Contractors	T2.1.3
Declaration of Interest (SBD 4)	T2.1.4
Preference Points Claim Form in terms of the Preferential Procurement Regulations, 2022 (SBD 6.1)	T2.1.6
Form of Offer and Acceptance	C1.1
Bill of Quantities	C2
PART C: CONTRACT	
Part C1 – Agreements and contract data	
Form of Offer and Acceptance	C1.1
Contract data and Form of Guarantee	C1.2
Part C2 – Pricing data	
Bills of Quantities	C2
Part C3 – Scope of Work	
Scope of Work	C3

T1.1: NOTICE AND INVITATION TO TENDER

THE SOUTH AFRICAN POLICE SERVICE INVITES QUOTATIONS FOR:

Project title:	Appointment of a contractor for the Supply, Installation, Commissioning and Maintenance service of a Standby Generator for Nieuwoudtville Police Station: Northern Cape Province		
Quotation no:	NIEUWOUDTVILLE 01/2026		
Advertising date:	2026-08-26	Closing date:	2026-10-08
Closing time:	11:00	Validity period:	90 days

It is estimated that tenderers must have a CIDB contractor grading designation of **Grade 2 (R 500 001 to R 1 million) (EB) Electrical Engineering works(buildings)**, or higher.

Only Tenderers who are responsive to the following responsiveness criteria are eligible to submit tenders:

☒	Only those tenderers who are registered with the cidb, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a Grade 2 (R 500 001 to R1 million)(EB) Electrical Engineering works(buildings) , or higher class of construction work, are eligible to have their tenders evaluated.
☒	Tenderers must be active on the cidb Register of Contractors prior to the evaluation of submissions.
☒	Tender offer must be properly received on the tender closing date and time specified on the invitation, fully completed and signed in ink (All as per Standard Conditions of Tender).
☒	Submission of Resolution of Board of Directors document (T2.1.1) or (T2.1.8), authorising a dedicated person to sign documents on behalf of the Bidding Enterprise.
☒	Submission of the Compulsory Clarification Meeting Certificate (T2.1.2), as proof of attendance of the compulsory clarification meeting that must be signed by the SAPS representative at the meeting. Failure to attend the physical site inspection will result in the Compulsory Clarification Meeting Certificate not being signed by the SAPS's representative at the closing of the compulsory clarification meeting. Compulsory Clarification Meeting Certificates must be signed by the SAPS representative at the closing of the compulsory clarification meeting or it will be regarded as being non-compliant and WILL lead to the Tender being disqualified.
☒	Submission of the Declaration of Interest SBD4 (T2.1.4).
☒	Submission of the Form of Offer and Acceptance (C1.1).
☒	Submission of the priced Bill of Quantities (C2).
☒	Tenderers and Subcontractors must be registered on CIDB and the Government's Central Supplier Database (CSD) and must include in their bid, their Master Registration Numbers (Supplier Numbers), as well as their Tax Compliance Status PINs to enable the SAPS Department to verify the Suppliers' Tax Status on (CSD), alternatively, within 7 calendar days after the closing date of this bid. Failure to submit will result in the tender offer being rejected.
☒	Tenderers and Sub-contractors must be Tax compliant, failure to comply will result in the bid being disqualified.
☒	A compulsory clarification meeting will take place at SAPS Provincial Supply Chain Management Office, Compound and Stockdale Street, Kimberley, Northern Cape Province, on 2026-09-22 starting strictly at 11:00. Latecomers will not be allowed. Please send competent Representatives to obtain important information.
☒	The SAPS reserves the right to conduct supplier due diligence prior to final award or at any time during the contract period. This may include site visits.

This tender will be evaluated according to the PPPFA Preferential Procurement Regulations, 2022.

The Preference points scoring system will be the 80/20 points scoring system.

PRICE:	POINTS 80
NUMBER OF PREFERENCE POINTS ALLOCATED FOR SPECIFIC GOALS	20
Total points for Price and Preference for specific goals:	100

SPECIFIC PREFERENTIAL GOALS	Number of points (80/20 system)
Persons historically disadvantaged on the basis of race with at least 51% ownership	5
Persons historically disadvantaged on the basis of gender with at least 51% ownership	5
Persons with at least 51% ownership who are youth	5
Persons historically disadvantaged by unfair discrimination on the basis of disability with at least 51% ownership	5
Total number of preference points allocated for specific goals	20
Non-compliant contributor	0

NOTE: Bidders claiming preference points **must sign and submit the Preference Points Claim Form** in terms of the Preferential Procurement Regulations, 2022. (T2.1.6 (SBD 6.1)).

COMPILED BY:

Rank, initials and surname	Signature	Date

VERIFIED AND APPROVED BY:

Rank, initials and surname	Signature	Date

T1.2: TENDER DATA

Project title:	<i>Appointment of a contractor for the Supply, Installation, Commissioning and Maintenance service of a Standby Generator for Nieuwoudtville Police Station: Northern Cape Province</i>
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Quotation no:	<i>NIEUWOUDTVILLE 01/2026</i>	Closing date:	<i>2026-10-08</i>
Closing time:	<i>11:00</i>	Validity period:	<i>90 days</i>

Clause number:	
	The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement as per Government Notice No. 423 published in Government Gazette No. 42622 of 8 August 2019 and as amended from time to time. (see www.cidb.org.za) The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender. Each item of data given below is cross-referenced to the clause marked "C" in the above mentioned Standard Conditions of Tender.
C.1.1.1	The employer is the Government of the Republic of South Africa in its Department of the South African Police Service.
C.1.6.3	For this contract the single volume approach is adopted. This procurement document has been formatted and compiled under the headings for a single volume approach as contained in the CIDB's "Standard for Uniformity in Construction Procurement." The list of Returnable Documents identifies which of the documents a tenderer must complete when submitting a tender offer. The tenderer must submit his tender offer by completing the Returnable Documents including the fully priced Activity Schedule / Bills of Quantities, signing the "Offer" section in the "Form of Offer and Acceptance" and delivering the single volume procurement document back to the Department bound up as it was when it was received. The single volume procurement document issued by the employer comprises the following: TENDER Part T1: Tendering procedures T1.1 - Tender Notice and Invitation to Tender T1.2 - Tender Data Part T2: Returnable documents T2.1- List of Returnable Documents CONTRACT Part C1: Agreements and contract data C1.1 - Form of Offer and Acceptance Part C2: Pricing data C2 - Pricing instructions and Bill of Quantities Part C3: Scope of work C3 - Scope of work

Quotation no: NIEUWOUDTVILLE 01/2026

C.1.4	The Employer's agent is: <table border="1"> <tr> <td>Name:</td> <td></td> </tr> <tr> <td>Capacity:</td> <td></td> </tr> <tr> <td>Address:</td> <td></td> </tr> <tr> <td>Tel:</td> <td></td> </tr> <tr> <td>Fax:</td> <td></td> </tr> <tr> <td>E-mail:</td> <td></td> </tr> </table>	Name:		Capacity:		Address:		Tel:		Fax:		E-mail:	
Name:													
Capacity:													
Address:													
Tel:													
Fax:													
E-mail:													
C.2.1	Only those tenderers who are registered with the cidb, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a Grade 2 (R 500 001 to R1 million)(EB) Electrical Engineering works(buildings) class of construction work, are eligible to have their tenders evaluated.												
C.2.7	For particulars regarding a compulsory clarification meeting, see Notice and Invitation to Tender T1.1												
C.2.12	If a tenderer wishes to submit an own alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements. A tenderer may submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. Provided that the tenderer's main tender offer is according to specification and would under normal circumstances be recommended for acceptance, his alternative tender offer may also be considered for the purpose of the award of the contract. Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal. Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements. The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed. Alternative tender offer permitted: Yes ☐ No ☒												
C.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are as per Notice and Invitation to Tender.												
C.2.13.6 C.3.5	A two-envelope procedure will not be followed.												
C.2.15	The closing time for submission of tender offers is as per Notice and Invitation to Tender T1.1												
C.2.16	The tender offer validity period is as per Notice and Invitation to Tender T1.1												
C.2.19	Access shall be provided for inspections, tests and analysis as may be required by the Employer.												
C.2.22	Not a requirement.												

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C.3.11	Scoring Financial Offer: Tender offers will be scored using the following formula: $N_{FO} = P_m / P \times W_1$ where N_{FO} = Number of tender evaluation points awarded for the financial offer. W_1 = The percentage score given for financial offer as stated in the Notice and Invitation to Tender T1.1 P_m = The comparative offer of the most favourable tender offer. P = The comparative offer of tender offer under consideration.
	Scoring the Financial / Quality combined Offer: $S = N_{FO} + W_Q \text{ (calculated separately for each tender offer)}$ The score for quality and financial offer is to be combined, before the addition of the score for preference, as follows: $W_C = W_3 \left(1 + \frac{(S - S_m)}{S_m} \right)$ where W_3 = The number of tender evaluation points for quality and financial offer and equals: 1) 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R 50 000 000; or 2) 80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R 50 000 000. S = The sum of score for quality and financial offer of the submission under consideration. S_m = Sum of the score for quality and financial offer of the submission scoring the highest number of points. Scoring for Preferences: Up to 100 minus W_3 tender evaluation points will be awarded to tenderer who completes the preferencing schedule and who is found to be eligible for the preference claimed. Points for Preference will be calculated according to the Preferential Procurement Regulations, 2022 as a proportion of the percentages stated in the Notice and Invitation to Tender T1.1 Calculate Total tender Evaluation Points: The point calculated for price will be added to the point scored for preference for each individual tender offer according to the formula: $\text{Total tender evaluation points} = W_C + N_p$
C.3.13	Tender offers will only be accepted if: - the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act, 2004 (Act No. 12 of 2004) as a person prohibited from doing business with the public sector; and - the tenderer has not: - abused the Employer's Supply Chain Management System; or - Failed to perform on any previous contract and has been given a written notice to this effect. The SAPS reserves the right to accept and award any bid wholly, partially/ split or not accept and award any bid. A contract will only be entered into with a tenderer who has in his employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for supervisory and management staff. - Applicable
C.3.17	Provide to the successful tenderer one copy of the signed contract document.

T2.1 LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

Returnable schedules and documents required to be regarded as responsive:

- Resolution of Board of Directors (T2.1.1)
- Compulsory Clarification Meeting Certificate (T2.1.2) (**Only if compulsory clarification meeting is applicable.**)
The compulsory clarification meeting certificate must be signed by the SAPS representative at the meeting. **Failure to attend the physical site inspection will result in the Compulsory Clarification Meeting Certificate not being signed by the SAPS's representative at the closing of the compulsory clarification meeting. Compulsory Clarification Meeting Certificates must be signed by the SAPS representative at the closing of the compulsory clarification meeting or it will be regarded as being non-compliant and WILL lead to the Quotation being disqualified.**
- Declaration of Interest - SBD4 (T2.1.4)
- Form of Offer and Acceptance (C1.1)
- Priced Bill of Quantities (C2)

Other documents required for tender evaluation purposes:

- Schedule of Sub- Contractors (T2.1.3)
- Preference Points Claim Form in terms of the Preferential Procurement Regulations, 2022 - SBD6.1 (T2.1.6)
- **Tenderers and their Subcontractors must be registered on the Government's Central Supplier Database (CSD) and must include in their tender, their Master Registration Numbers (Supplier Numbers) as well as their Tax Compliance Status PIN's to enable the SAPS to verify the Suppliers' Tax Status on (CSD) and at SARS, alternatively, within 7 calendar days after the closing date of this tender. Failure to comply will result in the Quotation offer being rejected.**

Documents that will be incorporated into the contract:

- Form of Offer and Acceptance (C1.1)
- Contract Data (C1.2)
- Bill of Quantities (C2)
- Scope of Work (C3)

All the above-mentioned documents and schedules are compulsory. Failure to submit these documents may result in the Quotation being rejected.

T2.1.1: RESOLUTION OF BOARD OF DIRECTORS

RESOLUTION of a meeting of the Board of * Directors / Members / Partners of:

(Legally correct full name and registration number of the Enterprise)

Held at _____ (place)

on _____ (date)

RESOLVED that:

1. The Enterprise submits a Bid / Tender to the South African Police Service in respect of the following project:

(Project description as per Bid Document)

Bid Number: _____ (Bid Number as per Bid Document)

2. *Mr/Mrs/Ms: _____
(Full names and Surname)

Identity number: _____

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____ (Signature)

be, and is hereby, authorized to sign the Bid / Tender, and any and all other documents and/or correspondence in connection with and relating to the Bid / Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			

Note:

1. * **Delete which is not applicable.**
2. **NB: This Resolution must be signed by ALL the Directors/ Members/ Partners of the Bidding Enterprise. Other Resolutions will not be accepted and it WILL result in the tender being disqualified.**
3. **In the event that paragraph 2 cannot be complied with, this Resolution must be signed by Directors/ Members/ Partners holding a majority of the shares/ ownership of the Bidding Enterprise. (Proof of shareholding/ ownership MUST be attached hereto. Failure WILL result in the tender being disqualified)**
4. **Directors/ Members/ Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the bidding Enterprise, which person must be so authorised by way of a duly completed Power of Attorney, signed by the Directors/ Members/ Partners holding a majority of the shares/ ownership of the Bidding Enterprise. (Proof of Power of Attorney and shareholding/ ownership MUST be attached hereto. Failure WILL result in the tender being disqualified)**
5. **Should the number of Directors / Members/ Partners exceed the space available above, additional names and signatures must be supplied on a separate page.**

T2.1.2: COMPULSORY CLARIFICATION MEETING CERTIFICATE

Project title:	<i>Appointment of a contractor for the Supply, Installation, Commissioning and Maintenance service of a Standby Generator for Nieuwoudtville Police Station: Northern Cape Province</i>		
Quotation no:	NIEUWOUDTVILLE 01/2026		
Closing date:	2026-10-08		

This is to certify that I, _____

representing the company of _____

attended the compulsory clarification meeting on: **2026-09-22 @ 11:00**

I have made myself familiar with all local conditions likely to influence the work and the cost thereof. I further certify that I am satisfied with the description of the work and explanations given at the clarification meeting and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.

Submission of the Compulsory Clarification Meeting Certificate (T2.1.2), as proof of attendance of the compulsory clarification meeting **must be signed by the SAPS representative at the meeting.**

Failure to attend the physical site inspection will result in the Compulsory Clarification Meeting Certificate not being signed by the SAPS's representative at the closing of the compulsory clarification meeting.

Compulsory Clarification Meeting Certificates must be signed by the SAPS representative at the closing of the compulsory clarification meeting or it will be regarded as being non-compliant and WILL lead to the Quotation being disqualified.

		2026-09-22
Name and Surname of Representative	Signature	Date

Captain Kgasago		2026-09-22
SAPS Representative	Signature	Date

T2.1.3: SCHEDULE OF SUB-CONTRACTORS

Project title:	<i>Appointment of a contractor for the Supply, Installation, Commissioning and Maintenance service of a Standby Generator for Nieuwoudtville Police Station: Northern Cape Province</i>
Quotation no:	<i>NIEUWOUDTVILLE 01/2026</i>

We notify you that it is our intention to employ the following Sub-Contractors for work in this contract.

We confirm that all Sub-Contractors who are contracted are CIDB and CSD registered and that they are Tax compliant. **Subcontractors must be registered with the cidb, in a contractor grading designation for which they are sub contracted for and must be registered on the Government's Central Supplier Database (CSD) and must also include in their bid, their Master Registration Numbers (Supplier Numbers), as well as their Tax Compliance Status PINs.** It is the responsibility of the Tenderer to ensure that all sub-contractors are cidb and CSD registered and that they are TAX compliant. **Failure to comply WILL lead to the Quotation being disqualified.**

If no Sub-Contractor is included on this form, the successful Bidder (Contractor) will have to obtain SAPS approval prior to the appointment of any Sub-Contractors for work on this contract.

	Name and address of Sub-Contractor	Nature and extent of work	Sub-Contractor's CIDB Designation and Grading (for example: 1GB, 1EB, etc.)
1		Description: Value: R	
2		Description: Value: R	
3		Description: Value: R	
4		Description: Value: R	

Name of representative	Signature	Date	

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

- 1.1 Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa, 1996 (Constitution), and further expressed in the various applicable legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.
- 1.2 If a person is listed in the Register for Tender Defaulters and/or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. DECLARATION ON EMPLOYMENT BY ORGAN OF STATE

- 2.1 Is the bidder, or any of the directors / trustees / shareholders / members / partners of the bidder employed by an organ of state, as defined in section 239 of the Constitution? **YES/NO**
- 2.2 If YES, furnish particulars of the names, individual identity numbers, in the table below:

Full Name	Identity Number	Name of organ of state

- 2.3 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

1. the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.3.1 If so, furnish particulars:

.....

.....

.....

2.4 Does the bidder or any of its directors/trustees/shareholders members/partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise, whether or not they are bidding for this contract? **YES/NO**

2.4.1 If so, indicate all companies registered in the CSD in the table below:

Supplier registration number (MAAA)	Status (active/inactive/deleted)

Failure to disclose all CSD-registered active companies linked to all Directors will lead to disqualification.

3 GENERAL DECLARATION

I,, the undersigned, in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure.
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found to be false.
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.5 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to

the date and time of the official bid opening or of the awarding of the contract.

- 3.6 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.7 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act, 1998 (Act No. 89 of 1998) and or may be referred to law enforcement agencies for criminal investigation and or may be restricted from conducting business with the state for a period not exceeding 10 years in terms of the Prevention and Combating of Corrupt Activities Act, 2004 (Act No. 12 of 2004) or any other applicable legislation.

I CERTIFY THAT THE ABOVE IS CORRECT.

I ACCEPT THAT THE PROCURING INSTITUTION MAY REJECT THE BID OR TAKE APPROPRIATE ACTION AGAINST ME IF THIS DECLARATION IS FALSE.

.....
Signature

.....
Date

.....
Designation

.....
Name of bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included).

1.2 **To be completed by the organ of state**

a) The applicable preference point system for this tender is the 80/20 preference point system.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3.1. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.2. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

$$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{min} = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. **Table 1: Specific goals for the tender and points claimed are indicated per the table below. *Note to tenderers: The tenderer must indicate how they claim points for the preference point system.***

The specific goals allocated points in terms of this tender	Number of points Allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Persons historically disadvantaged on the basis of race with at least 51% ownership	5	
Persons historically disadvantaged on the basis of gender with at least 51% ownership by women	5	
Persons with at least 51% ownership who are youth	5	
Persons historically disadvantaged by unfair discrimination on the basis of disability with at least 51% ownership	5	
TOTAL	20	

- 4.3. Name of company/firm.....
- 4.4. Company registration number:
- 4.5. TYPE OF COMPANY/ FIRM

Partnership/Joint Venture / Consortium
 One-person business/sole propriety
 Close corporation
 Public Company
 Personal Liability Company
 (Pty) Limited
 Non-Profit Company
 State Owned Company

[TICK APPLICABLE BOX]

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
- i) The information furnished is true and correct;
 - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
 - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
 - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

C 1.1: FORM OF OFFER AND ACCEPTANCE

Quotation no: **NIEUWOUDTVILLE 01/2026**

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of: ***Appointment of a contractor for the Supply, Installation, Commissioning and Maintenance service of a Standby Generator for Nieuwoudtville Police Station: Northern Cape Province***

The Tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

Rand (in words):	
Rand (in figures):	R

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the tender data, whereupon the Tenderer becomes the party named as the Contractor in the conditions of contract identified in the contract data.

SIGNED FOR THE TENDERER:

Signature	Capacity	Name and surname of representative	Date
Name and address of Tenderer:			

WITNESSED BY:

Signature	Name and surname of witness	Date

Quotation no: **NIEUWOUDTVILLE 01/2025****ACCEPTANCE**

By signing this part of this form of offer and acceptance, the Employer identified below accepts the Tenderer's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the Tenderer's offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part 1 Agreements and contract data, (which includes this agreement)
 Part 2 Pricing data
 Part 3 Scope of work.
 Part 4 Occupational Health and Safety, site information, drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the returnable schedules as well as any changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this form of offer and acceptance. No amendments to or deviations from said documents are valid unless contained in this schedule.

The Tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the Employer's agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect, on the date when the Tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the Tenderer (now Contractor) within five (5) working days of the date of such receipt notifies the Employer in writing of any reason why he/she cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

SIGNED FOR THE EMPLOYER:

Signature	Capacity	Name and surname of representative	Date

Name of Organisation:	South African Police Service
Address of Organisation:	Supply Chain Management Private Bag X254 Pretoria 117 Cresswell Road Silverton

WITNESSED BY:

Signature	Name and surname of witness	Date

Quotation no: **NIEUWOUDTVILLE 01/2025****Schedule of Deviations**

1.1.1. Subject:
Detail: <i>NONE</i>
1.1.2. Subject:
Detail:
1.1.3. Subject:
Detail:
1.1.4. Subject:
Detail:
1.1.5. Subject:
Detail:
1.1.6. Subject:
Detail:

By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

C1.2: CONTRACT DATA (GCC (2004) 1st EDITION: 2004)

CONTRACT DATA: APPOINTMENT OF CONTRACTOR FOR SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF STANDBY GENERATOR: 30KVA, 400V, 3 PHASE AT NIEUWOULDVILLE POLICE STATION: NORTHERN CAPE PROVINCE: INCLUDING 12 MAINTENANCE PERIOD.

Tender no:

	PART 1: DATA PROVIDED BY THE EMPLOYER
	CONDITIONS OF CONTRACT
	The General Conditions of Contract for Construction Works (2004) [hereinafter referred to as GCC 2004], published by the South African Institution of Civil Engineering, is applicable to this Contract.
	CONTRACT SPECIFIC DATA
	The following contract specific data; amendments; additions; or omissions are applicable to this Contract.
CLAUSES	Compulsory Data
1.1.14	"Employer" means the Government of the Republic of South Africa in its South African Police Service.
1.2.2	The addresses of the Employer, where the Employer shall receive notices, are as follows: Physical Address: 117 Cresswell Rd Silverton 0127 Postal Address: Private Bag X254 Pretoria 0001 Facsimile: 012-8417495 Telephone: 012-8417424
1.1.15	The name of the Engineer is: Captain L Mtshweni
1.2.2	The address of the Engineer, where the Engineer shall receive notices, are as follows: Physical Address: SAPS Expert Services De Haveland Crescent Perseus Techno park Pretoria Postal Address: SAPS SCM Expert Services Private Bag X254, Pretoria 0001 Facsimile: 012 845 8762 Telephone: 012 349 6058

1.1.21	Not applicable to this Contract
1.1.24	Omit reference to "telex, telegram, cable, electronic communication" and "or any like communication"
1.1.25	Add the following Clause 1.1.25 "Value of Works" means the value of Works certified by the Engineer as having been satisfactorily executed and shall include the value of the work done, the value of the materials and/or goods and Contract Price Adjustments.
1.1.26	"Contract Sum" means the total of Prices provided for in the Agreement made in terms of the Form of Offer and Acceptance.
1.6 and 3.8	The special non-working days are public holidays, Saturdays, and Sundays
1.6	The year end break commences on 16 December until the first working Monday of January of the succeeding year.
2.3	1. In Clauses 6.2; 11.2; 36.1; 36.2; 39.2;42.2; 43.2; 50.1; 53.3.2 and 54.4.3 all reference to the word "Engineer" must be replaced with the word "Employer", as the Employer has in terms of such Clauses retained its authority and has not given a mandate to the Engineer and the Employer shall therefore sign all documents in relation thereto. 2. Clauses 36.2; 37.1; 40.3; 41.1; 48.5; 49.10; 51.4; and 52.1 shall be amended as follows to indicate the limitation on the Engineer's authority in respect thereof: Clause 36.2 – amend to read as follows: "... (herein referred to as a "Variation Order") by the Employer...any confirmation in writing of such oral order given by the Employer...The Contractor shall, as soon as possible... confirms it in writing to the Employer...and such order in writing is not contradicted in writing by the Employer...." Clause 37.1 – amend to read as follows: "The value of the variations ordered the Employer...Provided that, failing agreement with the Contractor, the Engineer shall determine the rate or price in accordance with the foregoing principles, obtain approval from the Employer, notify the Contractor in writing..." Clause 40.3 – amend to read as follows: "...unless such instruction is in writing, duly approved by the Employer, states explicitly..." Clause 41.1 – amend to read as follows: "... said performance has actually taken place and may be extended by the Employer at his discretion." Clause 48.5 – amend to read as follows: " Unless otherwise provided in the Contract, the Employer shall...as read with Clause 48.2, and deliver to the Contractor its written ruling on the claim...thereof allowed by the Employer...so agreed between the Contractor and the Employer...If, before the Employer's ruling on the whole claim..." Clause 49.10 – amend to read as follows: "...The Employer shall within 14 days issue to the Contractor a Final Payment Certificate..."

	Clause 51.4 – amend to read as follows: “...the Employer shall issue to the Contractor a Certificate of Completion; Provided that the Employer, shall be...” Clause 52.1 – (a) amend to read as follows: “... shall have been delivered by the Employer to the Contractor stating the date...” (b) Delete the entire third paragraph under Clause 52.1 3. Add the following paragraph under Clause 2.3: Provided that, notwithstanding any provisions to the contrary in the Contract, the Employer shall have the right to reverse and, should it deem it necessary, to amend any certificate, instruction, decision or valuation of the Engineer and to issue a new one, and such certificate, instruction, decision or valuation shall for the purposes of the Contract be deemed to be issued by the Engineer, provided that the Contractor shall be remunerated in the normal manner for work executed in good faith in terms of an instruction issued by the Engineer and which has subsequently been rescinded.
6.6	Omit
7.	Replace the word “ GUARANTEE ” with the word “ SECURITY ”
7.1	Replace in its entirety with the following: The Contractor shall deliver to the Employer within 21 days of the Commencement Date the form of security selected in the Contract Data and any expenditure incurred in doing so shall be borne by the Contractor.
7.2	Should the Contractor fail to select the security to be provided or should the Contractor fail to provide the Employer with the selected security within 21 days from the Commencement Date, it will be deemed that the Contractor has selected a security in the form of a retention of 10% of the Value of Works (excluding of VAT)
9.1	Replace in its entirety with the following: The Employer will become the owner of the information, documents, advice, recommendation and reports collected, furnished and/or compiled by the Contractor during the course of, and for the purposes of executing this Contract, all of which will be handed over to the Employer on request, but in any event on the termination and/or cancellation of this Contract for whatever reason. The Contractor relinquishes its retention or any other rights to which it may be entitled.
9.2	Add the following as 9.2: The copyright of all documents, recommendations and reports compiled by the Contractor during the course of and for the purposes of finalising the Works will vest in the Employer, and may not be reproduced or distributed or made available to any person outside the Employer's service, or to any institution in any way, without the prior written consent of the Employer. The Employer shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor.
9.3	Add the following as 9.3 The copyright of all electronic aids, software programmes etc. prepared or developed in terms of the Contract shall vest in the Employer, who shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor.

9.4	Add the following as 9.4 In case of the Contractor providing documents, electronic aids, software programmes or like material to the Employer, the development of which has not been at the expense of the Employer, copyright shall not vest in the Employer. The Contractor shall be required to indicate to which documents, electronic aids, software programmes or like material this provision applies.
9.5	Add the following as 9.5 The Contractor hereby indemnifies the Employer against any action, claim, damages or legal cost that may be instituted against the Employer on the grounds of an alleged infringement of any copyright or any other intellectual property right in connection with the Works outlined in this Contract.
9.6	Add the following as 9.6 All information, documents, recommendations, programmes and reports collected or compiled must be regarded as confidential and may not be communicated or made available to any person outside the Employer's service and may not be published either during the currency of this Contract or after termination thereof without the prior written consent of the Employer.
10.1	Replace with the following: The Contractor shall, save as may be otherwise provided in the Contract or be legally or physically impossible, commence executing the Works within 14 days calculated from the date the Contractor is given access to and possession of the Site in terms of Clause 11.
11.1.1	Replace the words "On the Commencement Date" with the words "Within 14 days of the Contractor submitting to the Engineer an acceptable health and safety plan required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)"
12.2	The Contractor shall deliver his programme of work within 14 days from date of Site hand-over.
12.3.3	Amend as follows: "Rates of progress for the various parts of the Works taking account, inter alia, of design, acquisition, construction, testing, time risk, float, and any other necessary and relevant facts; and"
13.1	Amend as follows: "On the date possession is given to the Contractor, the Engineer shall deliver to the Contractor three (3) copies, at no cost to the Contractor, of the drawings and any instructions required for the commencement of the Works. The cost of any additional copies of such drawings and/or instructions, as may be required by the Contractor, will be for the account of Contractor.
25.2	Insert the words "in writing" to read as follows: "... unless he considers it unnecessary and advises the Contractor accordingly in writing..."
26.2	Replace the words "within a reasonable time" with the words "within the time period stipulated by the Engineer in such order..."
28.1	Add the following at the end thereof Such losses or damages may be recovered from the Contractor or by deducting the same from any amounts still due under this Contract or under any other contract presently or hereafter existing between the Employer and the Contractor and for this purpose all these contracts shall be considered one indivisible whole.
35	Replace in its entirety with the following: Unless otherwise stated adequate insurance is the responsibility of the Contractor. The

35.1	Contractor shall submit the insurance policy to the Employer for approval, if so requested. Damage to the Works (a) Without in any way limiting the Contractor's obligations in terms of the Contract, the Contractor shall bear the full risk of damage to and/or destruction of the Works by whatever cause during construction of the Works and hereby indemnifies and holds harmless the Employer against any such damage. The Contractor shall take such precautions and security measures and other steps for the protection and security of the Works as he may deem necessary. (b) The Contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the Works and to rebuild, restore, replace and/or repair the Works. (c) The Employer shall carry the risk of damage to or destruction of the Works and material paid for by the Employer that is the result, whether direct or indirect or proximate or remote, of the excepted risks as set out in Clause 35.2. (d) Where the Employer bears the risk in terms of this Contract, the Contractor shall, if requested to do so, reinstate any damage or destroyed portions of the Works and the costs of such reinstatement shall be measured and valued in terms of Clause 44 hereof. Injury to Persons or loss of or damage to Properties (a) The Contractor shall be liable for and hereby indemnifies the Employer against any liability, loss, claim or proceeding whether arising in common law or by Statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the Works unless due to any act or neglect of any person for whose actions the Employer is legally liable. (b) The Contractor shall be liable for and hereby indemnifies the Employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable or personal property or property contiguous to the Site, whether belonging to or under the control of the Employer or any other body or person, arising out of or in the course of or by reason of the execution of the Works unless due to any act or neglect of any person for whose actions the Employer is legally liable. The Contractor shall upon receiving an Order in Writing from the Engineer cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the Employer shall be entitled to cause it to be made good and to recover the cost thereof from the Contractor or to deduct the same from amounts due to the Contractor as stated in Sub-Clause 53 (4) hereof. (c) The Contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the Employer for the purpose of executing the Works until the issue of the Certificate of Completion. (d) Where the execution of the Works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the Contractor, shall and will remain adequately insured or insured against the death of or injury to persons or damage to such property consequent on such removal or interference with support until such portion of the Works has been completed. (e) The Contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the Works.
35 (A)	HIGH RISK INSURANCE In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or do line formation the following will apply:

	(1) Damage to the Works The Contractor shall, from the Commencement Date of the Works until the date of the Certificate of Completion, bear the full risk of and hereby indemnifies and holds harmless the Employer against any damage to and/or destruction of the Works consequent upon a catastrophic ground movement as mentioned above. The Contractor shall take such precautions and security measures and other steps for the protection of the Works as he may deem necessary. When instructed to do so by the Engineer, the Contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the Works and to rebuild, restore, replace and/or repair the Works, at the Contractor's own costs. (2) Injury to Persons or Loss of or damage to Properties The Contractor shall be liable for and hereby indemnifies and holds harmless the Employer against any liability, loss, claim or proceeding arising at any time during the Contract Period whether arising in common law or by Statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above. The Contractor shall be liable for and hereby indemnifies the Employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable or personal property or property contiguous to the Site, whether belonging to or under the control of the Employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the Contract Period. (3) It is the responsibility of the Contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in Clauses 35 (A) (1) and 35 (A) (2) above. Without limiting the Contractor's obligations in terms of the Contract, the Contractor shall, within 21 days of the Commencement Date but before commencement of the Works, submit to the Employer proof of such insurance policy, if requested to do so. (4) The Employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the Contractor's default of his obligations as set out in Clauses 35 (A) (1), 35 (A) (2) and (3). Such losses or damages may be recovered from the Contractor or by deducting the same from any amounts still due under this Contract or under any other contract presently or hereafter existing between the Employer and the Contractor and for this purpose all these contracts shall be considered one indivisible whole.
36.4	Delete
37.2.2.3	The percentage allowance to cover the overhead charges is 33%, except on material cost where the percentage allowance is 10%
40.2	Add the following to the end of the second paragraph: "which costs may be deducted from any payments due to the Contractor in terms of the Contract or any other Contract, now or in the future, existing between the Employer and the Contractor and for this purpose all these contracts shall be considered one indivisible whole."
42.1	The Works shall be completed within: <i>Duration of contract: 15 calendar months.</i> <i>Phase 1: New Installation: 03 Months after Handover</i> <i>Phase 2: Maintenance: 12 Months (02 Services per year)</i>

43.1	The penalty for failing to complete the Works is 0.05% Per Calendar Day of the contract amount per calendar day.
46.2	Contract Price Adjustment (CPA) will be applicable Yes ☐ No ☒
47.5	Add the following Clause 47.5 If during the time for completion of the Works or any extension thereof abnormal rainfall or wet conditions occurs, then the formula below shall be used to calculate separately the delay for each calendar month or part thereof. It shall be calculated each month during the period referred to in Clause 42.1 as the time for the completion of the Works and any extension time in accordance with Clause 42 that may have been granted by the Employer, or until the issue date of the certificate of practical completion, whichever is the shorter period. The delay calculated for a given month shall be used to determine the interim extension of time granted for the month. At the end of the applicable period referred to above, the aggregate of the monthly delays will be taken into account for the final determination of the total extension of time for the Contract: $V = (Nw - Nn) + \frac{(Rw - Rn)}{X}$ If any value of V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn. The delay for a part of a month shall be calculated by substituting pro-rata values for the variables in the equation.
	The symbols shall have the following meanings: V = Delays due to rain in calendar days in respect of the calendar month under consideration. Nw = Actual number of days during the calendar month on which a rainfall of Y mm or more per day has been recorded Rw = Actual rainfall in mm for the calendar month under consideration. Nn = Average number of days in the relevant calendar month (as derived from existing rainfall records provided in the project specifications) on which a rainfall of Y mm or more per day has been recorded. Rn = Average rainfall in mm for the calendar month, as derived from the rainfall records supplied in the project specifications. X = 20, unless otherwise provided in the project specifications. Y = 10, unless otherwise provided in the project specifications. The total delay that will be taken into account for the determination of the total extension of time for the Contract shall be the algebraic sum of the monthly totals for the period under consideration. But if the grand total is negative, the time for completion shall not be reduced on account of abnormal rainfall. The total extension of time for any calendar month shall not exceed (Nc – Nn) calendar days, where Nc = number of days calendar days in the month under consideration The factor (Nw – Nn) shall be considered to represent a fair allowance for variations from the average number of days during which rainfall equals or exceeds Y mm per day. The factor (Rw – Rn) ÷ X shall be considered to represent a fair allowance for variations from the average for the number of days during which rainfall does not equal or exceed Y mm per day, but when wet conditions prevent or disrupt work. This formula does not take into account any flood damage, which could cause further or concurrent delays and which should be treated separately in so far as extension of time is concerned.

	Accurate rain gauging shall be taken at a suitable point on the site daily at 08:00 unless otherwise agreed to by the engineer, and the Contractor shall, at his own expense, take all necessary precautions to ensure that the rain gauges cannot be interfered with by unauthorized persons. Information regarding existing rainfall records, if available from a suitable rainfall station near the site, will be supplied in the project specifications, together with calculations of rain delays for previous years in accordance with the above formula. The average of these delays will be regarded as normal rain delays which the Contractor shall accommodate in his programme, and for which no extension of time will be considered.
48.3.4	Replace the word "conclusive" with the words "prima facie"
8.3.6	Delete
48.6	Add the following Clause 48.6 "If the Employer fails to give his ruling within the period referred to in Clause 48.5, he shall be deemed to have given a ruling dismissing the claim."
49.1.2	Replace the word "Schedule" with the word "Bill"
49.1.5	The percentage advance on materials not yet built into the Permanent Works is 85%
49.3	Replace with the following: Payment of the amounts referred to in Clause 49.1.1, 49.1.2, 49.1.3 and 49.1.4 shall, save to the extent otherwise provided in Clause 49.6, be subject to a retention, if applicable in terms of clause 7.1, by the Employer of an amount (herein after called the "retention money"), being the percentage, stated in Part 2 of the Contract Data of the said amounts due to the Contractor.
49.5	Replace Clause 49.5 with the following In respect of contracts up to R1 million and in respect of contracts above R1 million where the Contractor elects a security by means of a 10% retention of the Value of the Works (excl. VAT), 50% of the retention shall be released to the Contractor when the Engineer issues the last Certificate of Completion in terms of clause 51.4. The remaining 50% of the retention shall be released in accordance with the provisions of the conditions of contract and will become due and payable within 14 days of the issue of the last Final Approval Certificate. Or In respect of contracts above R1 million, where the Contractor elects a security by means of a cash deposit or fixed guarantee of 5% of the Contract Sum (excl. VAT) and a 5% retention of the Value of the Works (excl. VAT), the cash deposit or fixed guarantee, whichever is applicable, shall be refunded to the Contractor or released to the guarantor, respectively, when the Engineer issues the last Certificate of Completion in terms of Clause 51.4. The 5% retention of the Value of the Works (excl. VAT) shall become due and payable within 14 days of the issue of the last Final Approval Certificate. Or In respect of contracts above R1 million, where the Contractor elects a security by means of a cash deposit or a variable guarantee of 10% of the Contract Sum (excl. VAT), the cash deposit or the variable guarantee, whichever is applicable, will be reduced to 5% of the Value of the Works (excl. VAT) when the Engineer issues the last Certificate of Completion in terms of Clause 51.4. The balance of the cash deposit shall become due and payable within 14 days of the issue of the last Final Approval Certificate or the variable guarantee shall expire upon the issue of the last Final Approval Certificate.
49.6	A Retention Money Guarantee is not permitted.
49.7.2	Replace the words "prime overdraft rate certified by the Contractor's banker" with the words "interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply"

49.11	Add Clause 49.11 as follows: In respect of any amount owed by the Contractor to the Employer, the Contractor shall pay the Employer interest at the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply
50.	Amend the percentage from 15 per cent to 20 per cent in the title, the Clause and in the sideline comment.
52.2	Amend as follows: “...of the Contract or any part thereof, nor of the accuracy of any claim made by the Contractor, nor shall any other certificate exclude ...powers of the Engineer and/or the Employer”
53.1	The Defects Liability Period is 12 months
55.1.6	Amend as follows “Has, to the detriment of good workmanship or without the written approval of the Employer or in defiance of the Engineer’s instructions to the contrary, sublet any part of the Contract, or”
56.2.2	Delete the following words “without prejudice to his lien on the Employer’s property”
56.3	Add the following at the end After cancellation of the Contract by the Contractor, the Contractor, when requested by the Employer to do so, shall not be entitled to refuse to withdraw from the Works on the grounds of any lien or a right of retention or on the grounds of any right whatsoever.
57.1	Amend as follows: “... Clauses 48 or 58.7 or in respect of any matter in terms of which the Employer has issued a certificate or instruction or has made a ruling, determination, decision or valuation, or in respect of any matter in terms of which the Employer has given effect to the provisio in Clause 2.3, the Contractor shall have the right by written notice with supporting particulars to the Engineer and Employer to require...”
58.1.1	Delete the words “Clause 48 or”
58.1.2	Delete the words “48.5 or” and replace the word “Clauses” with the word “Clause
58.1.3	Amend as follows: “... and the Engineer or Employer, as applicable, or by the Mediator’s opinion to the extent that it has become binding in terms of Clause 58.2.6
58.2	Dispute resolution is to be by means of mediation.
58.4	Disputes are to be referred for final settlement to litigation.
59	Add the following Clause 59 “No amendments of this Contract or of any provisions or terms hereof and no waiver or relaxation or suspension of any of the provisions or terms of this Contract shall be of any force or effect unless reduced to writing and signed by both the parties hereto.”

PART 2: DATA PROVIDED BY THE CONTRACTOR	
1.8	The name of the Contractor is (insert the legal name of the Contractor, as well as the Contractor's registration number, if applicable)
1.2.2	The addresses of the Contractor, where the Contractor shall receive notices, are as follows: Physical Address: _____ _____ _____ Postal Address: _____ _____ _____ Facsimile: _____ Telephone: _____
7.1	The security to be provided by the Contractor: (a) in respect of contracts up to R1 million, the security to be submitted by the Contractor to the Employer will be a retention of 5% of the Value of Works (excluding VAT) (b) in respect of contracts above R1 million, the Contractor will provide, as security, one of the following: (1) cash deposit of 10 % of the Contract Sum (excluding VAT) Yes ☐ No ☐ (2) variable construction guarantee of 10 % of the Contract Sum (excluding VAT) Yes ☐ No ☐ (3) retention of 10% of the Value of Works (excluding VAT) Yes ☐ No ☐ (4) cash deposit of 5% of the Contract Sum (excluding. VAT) and a retention of 5% of the Value of Works (excluding. VAT) Yes ☐ No ☐ (5) fixed construction guarantee of 5% of the Contract Sum (excluding VAT) and a retention of 5% of the Value of Works (excluding VAT) Yes ☐ No ☐ NB. Guarantees submitted must be issued by either an insurance company duly registered in terms of the Short-Term Insurance Act, 1998 (Act 35 of 1998) or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.



SOUTH AFRICAN POLICE SERVICE

SCOPE OF WORK

**SUPPLY, DELIVERY, INSTALLATION, MAINTENANCE AND
COMMISSIONING, 30KVA, 3 PHASE STANDBY GENERATOR**

NIEUWOUDTVILLE POLICE STATION

(NORTHERN CAPE PROVINCE)

Engineering Contract: 15 Months

COMPILED BY: Division: SCM, Facility Management: Pretoria

Captain: L Mtshweni
Chief Industrial Technician
E-Mail: Mtshweni@saps.gov.za



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1. INTRODUCTION

The Division Supply Chain Management under South African Police Service has a requirement to supply, deliver, install, maintain and commission a Diesel Standby Generator at Nieuwoudtville Police Station, Northern Cape Province, in South Africa, occupied by the South African Police Service (SAPS) for a contract period of 15 months.

2. SCOPE OF WORKS

This specification covers the SAPS minimum requirements for the design, manufacturing, testing, supply, and delivery to site, installation and commissioning of Diesel Standby Generator suitable for use in areas accessible to the public.

- Supply, Delivery, Installation, testing and commissioning of 30kVA, 400V, 3 Phase, Outdoor Standby Generator,
- Supply and construct New Concrete reinforced plinth for Generator installation,
- Supply and installation of Galvanised Palisade Fence as per specifications,
- Supply and Installation of armoured Cable,
- Supply and Installation of Circuit Breakers,
- Excavation for Cable Sleeve installation,
- Rewiring of the Main Distribution Board,
- After Practical Completion of Installation, the Contractor shall carry out a six monthly interval service for period of 12 months,
- Test and Commissioning: Issue Certificate of Compliance,
- Provide Training to Station SCM Personnel,

The Contractor shall ensure that he/she is conversant with the technical specification and applicable standards.

The Contractor will provide all equipment, labour, material and transportation to supply, installation and commissioning of diesel standby generator including all components and sundries, tests, etc. required to bring the installations to the working order intended, compliance and guarantee.



3. NORMATIVE REFERENCES

The entire installation shall be carried out to the satisfaction of the SAPS, Facility Management, and shall be carried out in accordance with the following Standard Specifications and Regulations.

- ISO 9000/9001 Quality Management Systems.
- SANS 342 Automotive diesel fuel
- SANS 1186 Symbolic safety signs
- SANS 1507 Electric cables with extruded solid dielectric insulation for fixed installations
- SANS 1632 Batteries
- SANS 1652 Battery chargers – industrial type
- SANS 8528-1 Reciprocating internal combustion engine driven alternating current generating sets (all parts)
- SANS 10140 Identification colour marking
- SANS 60034 Rotating electrical machines
- SANS 60529 Degrees of protection provided by enclosures
- SANS 60947 Low-voltage switchgear and control gear – Part 7-1: Ancillary equipment – Terminal blocks for copper conductors
- SANS 10142-1 Wiring of Premises
- SANS 62-1 Steel pipes Part 1
- SANS 301-12 Palisade fence
- SANS 10198-8 Cable laying and Installation
- SANS 10131 Petroleum products, above ground storage and tanks.
- SANS 60947 All low voltage switchgear and control gear assemblies
- SANS 10400 Building regulations
- SANS 61084-1-2 Electrical Installation Ducting and Trunking Systems on walls and ceilings
- SANS 61305-1-2.4 Electrical Installation Conduit Fittings
- SANS 767- 1-2 Electrical Earth Leakage Protection units
- SANS 45001 Occupational Health and Safety Act No. 85 of 1993
- The municipal by-laws and any specific requirements of the Local Supply Authority of the area or district concerned.
- Local Fire Regulations

4. DETAIL REQUIREMENTS

This particular specification must be read with, and shall form part of the Technical Specification contained in this document. Any deviation from the specification shall be fully defined. Outdoor



PART C 2: CONTRACT: SCOPE OF WORK FOR INSTALLATION OF STANDBY GENERATOR

Generator will be installed on a newly constructed Plinths with canopies. Outdoor units will be enclosed with palisade fencing, as per specification. The plinth, earthing, and palisade fencing shall be supplied, installed and constructed by the appointed contractor (including required supply cabling and switch gear).

All connections, installations and terminations of the required cabling and switch gear will form part this contract. The diesel generator may be connected to Uninterrupted Power Supplies (UPS) systems, radio communication systems and dedicated power outlets and interrelated circuitry.

All equipment shall be intergrated with existing infrastructure and therefore additional care will be taken to protect all equipment in terms of excessive voltage spikes, over current protection, lightning protection and voltage drops. When all conductors of an AC installation are carrying their design load, the difference in voltage between the point of supply and any point of outlet or terminals of fixed appliances should not exceed 5% of the standard or declared voltage. In the case of a 230/400 V system, the voltage drop for single-phase circuits should not exceed 11, 5 V (5% of 230 V) and the voltage drop for three-phase circuits should not exceed 20V (5% of 400V).

5. TRANSPORT COST

Transport cost will include the cost of wages and overheads for personnel during transport to the site and running cost of the vehicle.

Transport cost will be calculated from the Suppliers Office and it will be paid in the proven basis (maximum Radius 500km from the Nieuwoudtville Police Station), in Northern Cape.

The Contractor shall make the necessary arrangements to have the required material or equipment available to execute the repairs, therefore no claims for delivery cost or transport cost to collect material or equipment shall be accepted.

6. NOTICE TO BIDDER

This Quotation is for the supply, delivery, installation and commissioning of standby generator, and maintenance of the supplied generator 30KVA, 3-Phase, at Nieuwoudtville Police Station in Northern Cape Province, occupied by the South African Police Service (SAPS). The Facility need a new standby generator. All decommissioned equipment will remain the property of the SAPS. Particulars regarding decommissioned generators and new generators will be updated on the Asset Register by the Section Head: Property Management.

The contractor will be obligated in terms of this contract to ensure that first delivery of all generator installation and commissioning is within a period of three (03) months, after receiving an official order form and/or in terms of the approved Program of Works. The contractor shall fully acquaint



PART C 2: CONTRACT: SCOPE OF WORK FOR INSTALLATION OF STANDBY GENERATOR

them with the nature of the work carried out, the locality of the plant and any possible hindrances in the execution of the installation, services and maintenance and to allow for these entire factors in their price, as any later claim based on unforeseen events or knowledge will not be entertained.

The contract shall be entirely responsible for referencing all relevant standard specification of the SANS or other applicable published standard whether such standard is referenced in this document or not and ensuring compliance with the Engineering Works therewith. The references in this document to standard specification shall not be construed as limiting, and are given merely as a guide for basic reference. Where SABS is stated, the applicable SANS shall apply.

It is a specific condition that if it is necessary to replace any equipment, (not part of this contract) that the SAPS reserve the right to source additional quotations and to accept a specific quotation, in term of the SAPS acquisition regulation and standard. The SAPS further reserve the right to accept or decline such variations.

Any generator part or any equipment shall not be removed from facility for repairs or unless permission is granted by Station Commander or SCM Commander at the police station in consultation with SCM Head Office: Project Manager. If it happen that such equipment or part of the equipment is removed without the permission, such equipment or part of the equipment will be returned to where it was taken at no cost to SAPS.

7. GENERAL REQUIREMENTS AND SPECIFICATION

STATE UNDER PARTICULAR OF TENDER AGAINST EACH REQUIREMENT WHETHER THE TENDER COMPLY OR DO NOT COMPLY WITH THE REQUIREMENT OF THE SPECIFICATION		Comply	Not Comply
7.1	This Quotation is for supply, delivery, installation, commissioning and maintenance of the new generator 30KVA, 3 Phase at Nieuwoudtville Police Station, in Northern Cape Province, occupied by the South African Police Service (SAPS). Decommissioned of outmoded or damaged equipment will remain the property of the SAPS (as specified in this document).		
7.2	The contractor will be obligated in terms of this contract to ensure that first delivery of the generator installation and commissioning is within a period of three (03) months. The Contractor shall fully acquaint them with the nature of the work to be carried out, the locality of the plant and any possible hindrances in the execution of the installation, services and maintenance, and to allow for all of these factors in their prices, as any later claim bases on unforeseen events or knowledge will not be entertained. (as specified in this document)		
7.3	The generator sets shall be installed on a newly constructed plinth, which will form part of this contract. Standby generator, mounted on newly constructed plinths, and rated for single step full load application is required. Inclusive of Automatic Mains Failure (AMF) or Automatic Transfer Switch (ATS) control panel, battery, exhaust and integrated fuel tank. All cabling connection and related works are included in this contract. The Bidder shall guarantee that the diesel/governor and alternator/ Automatic Voltage Regulator (AVR) combination will be compatible with the site loads. The fuel tank shall be an integral part of the base frame of the generator set, with a minimum capacity of 220 liters, including filters, Gauges, Removable inspection cover, Drain, Filler cap, Low level and extra low shutdown/alarm sensors. Fuel pipe-work is to be in accordance with SANS 62-1: 2013. (as specified in this document)		



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7.4	Supply and install symbolic safety signs in compliance with SANS 1186-4: 2011. Ensure that all required warning signs on the outside of the building or Generator plant are to be in position. The signs on the outside must be fixed onto the doors of the emergency Generator room /Plant .The lettering must be readable and visible and in a good state. (as specified in this document)		
7.5	Service and Maintenance – The successful Contractor shall carry out a 240 hour type or at a six monthly interval service and 480 hour type or at 12 months service (depending on whichever occurs first for date of acceptance or handover). Job cards will be signed off and certified by the relevant Station Commander/ SCM Representative. All original job-cards must be attached to the applicable invoices, for payment purposes		
7.6	Operation and Maintenance Manuals – The contractor shall hand over, at the completion of the works one (1) original and two copies of the necessary operating and maintenance manuals, required for all plant and equipment supplied and installed by him or her as part of the works. A complete description of all operating procedures and safety measures shall be included in the manual. A basic "Fault Finding Guide" shall also be included. (as specified in this document)		
7.7	Maintenance Requirement – The manufacturer's recommendation with regard to the routine servicing and maintenance of all equipment shall be included in the manual. This data shall include the recommended service interval and the estimated hours required for each type of service, for each item of equipment, together with a list of agents/contractors authorized to carry out service/maintenance. With each site visit or when a fault is logged the successful contractor must allow to test run the generator for a period of at least a half an hour. During the test run must the proper functioning of all parts, including the electrical gear, protective cut outs, fault indicators, change-over equipment and battery must be checked, as well as the load on each phase. (as specified in this document)		
7.8	Electrical Connections – Electrical connections to the AMF or ATS panel form part of this contract. Wiring must be designed and installed as prescribed by SANS 10142-1:2017 wiring of buildings. (as specified in this document)		
7.9	Throughout the work shall be executed to the highest standards and to the entire satisfaction of the SAPS Project Manager, who shall interpret the meaning of the Contract Document and shall have the authority to reject any work and materials, which, in his judgment, are not in full accordance therewith. <u>All condemned material and workmanship shall be replaced or rectified as directed and approved by the SAPS Project Manager.</u> All work shall be executed in a first-class manner by qualified tradesman. The Contractor shall warrant that the materials and workmanship shall be of the highest grade, that the equipment shall be installed in a practical and first-class manner in accordance with the best practices and ready and complete for full operation. It is specifically intended that all material or labour which is usually provided as part of such equipment as is called for and which is necessary for its proper completion and operation shall be provided without additional cost whether or not shown or described in the Contract Document.		
7.10	The Contractor shall comply with the requirements of the Health & Safety Specification and applicable regulations. The contractor shall refer to the site information, and the specifications describing the scope of the Engineering Works, for information about the type of environment in which the work is to be executed. Notwithstanding anything stated in this document the contractor shall be responsible for determining the safety requirements of the site. (as specified in this document)		
7.11	The plinth shall be constructed. The plinth shall be constructed on a ripped and re-compacted subgrade of 100 mm thickness, compacted to a minimum of 95% Mod AASHTO. The generator set shall be mounted on a cast-in-situ reinforced concrete plinth with a minimum concrete strength of 25 MPa. Furthermore, concrete strength test results for 7days, 14 days and 28 days shall be submitted. To acquire maximum strength duration of 28 days should be allowed for concrete curing and shall be done continuously. Plinth shall be cast on site. The top of the plinth shall protrude at least		



PART C 2: CONTRACT: SCOPE OF WORK FOR INSTALLATION OF STANDBY GENERATOR

	200mm above the final surrounding from ground level. The concrete plinth shall protrude approximately 100mm beyond the edges of the generator set to form an apron. The concrete apron and plinth shall be wood float to a smooth surface finished and shall slope from the base to permit rain water runoff. Finished plinth level shall be confirmed prior to casting. Cable ducts shall be providing in the plinth to accommodate all the incoming and outgoing supply cables. The cable ducts shall be sealed to prevent entry of rodents. The earth mat will be installed at a minimum depth of 1200mm below the plinth, with earth spikes, or as per the required ground impedance.		
7.12	Outdoor Generators to be enclosed with palisade fencing and matching gate. All palisade fencing, gates and components shall be galvanized to SANS 301-12:2004 standards. All poles and horizontal bearers shall be manufactured from 2mm cold rolled steel formed material. All poles shall be fixed with anti-vandal bolts and fastened with shear off nuts. Complete installations shall be of a minimum height of 1800mm. Posts shall be fitted within concrete foundations of minimum of 500x500x500. The swing gate will be manufactured to match the palisade accordingly. (as specified in this document)		
7.13	The engine and generator shall be mounted on one common steel-supporting frame manufactured of channel iron or other equivalent steelwork to provide a rigid and solid foundation. The main frame shall be of "skid" base type. If no "skid" base is provided, suitable for free standing, holding down bolts and vibration eliminators to the generator set manufacturer's specification must be provided. This sub-frame shall be supported from a main frame by anti-vibration mountings. Duplex anti-vibration mounts shall be used. The inner frame and its support shall be of sufficient height above floor level to permit installation of a drip tray and for drainage of engine oil. The drip tray must be sloped and made of mild steel. It must be fixed in the frame beneath the engine and alternator and a drip pipe fitted with a plug must be extended from the lowest point of the drip tray to beyond the frame in an easily accessible position. The outer casing of the alternator, the engine, the sub-frame and main base frame shall be bonded together electrically and connected to the earth via a connection to the earth bar in the control panel and from there to an earth mat. (as specified in this document)		
7.14	The entire installation shall be carried out to the satisfaction of the SAPS, Facility Management, and shall be carried out in accordance with the following Standard Specifications and Regulations. - The Technical Specification for Diesel Driven Generator Sets, (which is included in this document). - ISO 9000/9001 Quality Management Systems. - SANS 342 Automotive diesel fuel - SANS 1186 Symbolic safety signs - SANS 1507 Electric cables with extruded solid dielectric insulation for - SANS 1632 Batteries - SANS 1652 Battery chargers – industrial type - SANS 8528-1 Reciprocating internal combustion engine driven alternating current generating sets - SANS 10140 Identification colour marking - SANS 60034 Rotating electrical machines - SANS 60529 Degrees of protection provided by enclosures - SANS 10142-1 Wiring of Premises - SANS 62-1 Steel pipes Part 1 - SANS 301-12 Palisade fence - SANS 10400-G Excavation - SANS 10131 Petroleum products, above ground storage and tanks. - SANS 60947 All low voltage switchgear and control gear assemblies - SANS 10400 Building regulations - SANS 61084-1-2. Electrical Installation Ducting and Trunking Systems on walls and ceilings - SANS 61305-1-2.4. Electrical Installation Conduit Fittings - SANS 767- 1-2. Electrical Earth Leakage Protection units - SANS 45001 Occupational Health and Safety Act No. 85 of 1993		



PART C 2: CONTRACT: SCOPE OF WORK FOR INSTALLATION OF STANDBY GENERATOR

	- The municipal by-laws and any specific requirements of the Local Supply Authority of the area or district concerned. - Local Fire Regulations - The contractor should fully familiarize himself/herself with these documents prior to quoting.		
7.15	Speed governing shall be by a solid state, asynchronous electronic speed governor conforming to of SANS 8528-1:2008. The SAPS reserves the right to inspect the locally available stock of spares prior to granting approval for the use of any particular type of speed regulator. The speed regulation (droop) of the governor shall be adjustable between 0% and 15%, and the steady state speed band 0, 25% asynchronous control. The operating voltage for the governor shall be the nominal voltage of the starting battery (normally 24 volts). Speed variation of the set between no load and full load may not exceed 4%. Engines must be fitted with flywheels correctly sized to eliminate visible flicker of lights fed by the generator set. Cyclic irregularity must be as stipulated in of SANS 8528-1:2008.		
7.16	Exhaust gas shall be piped, the piping being fitted with expansion joints and silencer and discharged to atmosphere. The expansion joints shall be of the stainless steel, concertina type, flexible, flanged and bolted to the exhaust manifold or turbo-charger outlet as applicable. Stainless steel bolts and nuts of the appropriate size must be used. Care must be exercised that exhaust pipe and silencer supports at the expansion joints are so positioned that no strain is placed on the manifold joint, turbo-charger, piping or silencer. The silencer shall be of stainless steel, of the baffle or absorption type of a size construction such that a sound level of 75 dB absolute is not exceeded within seven meters of the exhaust. The exhaust pipe shall be of stainless steel, insulated, and sufficient size to ensure that the backpressure is acceptable within the limits of the engine manufacturer. The exhaust system shall be offset from the center line of the plant to allow for hoists or cranes to remove the engine. Stainless steel nuts and bolts must be used in assembling the exhaust system. Flanged joints are required to aid dismantling. Exhaust piping over 100mm diameter must have a minimum thickness of 1,6mm. The outdoor generator exhaust pipe shall be supplied with a complete hinged flap that swings open when the generator is running.		
7.17	A factory load test, prior to any installations, will be performed and such test certificates will be supplied to the SAPS. The contractor shall supply all fuel, lubricants, connections, consumables, etc. required for the specified testing. On successful completion of the specified testing, the generator set, panel and all equipment, fittings and materials required for the installation of the generator set, as specified shall be delivered to site and installed.		
7.18	The appointed contractor to forward detailed descriptions, model references, fabrication, serial numbers and a COC for the purpose of updating the asset register.		
7.19	All electrical cables, unarmored and armored, shall be locally manufactured and shall bear the SABS stamp of approval.		
7.20	All new generators will be designed in facilities certified to ISO 9001 and manufactured in facilities certified to ISO 9001 or ISO 9002 standards.		
7.21	New equipment and material shall be supplied with a written guarantee confirming a defects liability period of 12 months from date of practical completion. These guarantees shall be furnished in favour of the SAPS.		
7.22	Equipment and material installed shall be new and unused.		
7.23	The fuel tank shall be an integral part of the base frame of the generator set, with a minimum capacity of 220 liters for 30KVA, 3 phase Generator.		
7.24	The enclosure must be completely vermin-proof, removable from the generator set and must be constructed of mild steel. All panels, the roof and doors shall be suitably braced and stiffened to ensure rigidity and to prevent warping.		
7.25	The Contractor shall ensure that all safety regulations and measures are applied and enforced during installation work on cabling, wiring and distribution boards.		
7.26	Transport cost will be calculated from the Suppliers Office and it will be Paid on proven basis (maximum radius 500km from the Nieuwoudtville police station).		



8. SITE CONDITIONS AND LOCATION

Site location of the station;

Latitude: -31.37425

Longitude: 19.11703

DESCRIPTION	CONTACT AND LOCATION
Station:	Nieuwoudtville Police Station
Province:	Northern Cape
Contact Person	Mrs Wina Dirks
Address:	Needling Street, Nieuwoudtville, 8180
E-Mail	Nieuwoudsaps@saps.gov.za
Tel:	027 218 8000

9. MAINTENANCE SUMMARY

The scope of works for this facility:

STATIONS	SCOPE OF WORKS
Installation	30KVA, 3 Phase, Standby Generator
Services	Every Six Month interval (2 x Services per year)
Maintenance	12 Maintenance Period

10. CONDITIONS OF CONTRACT

The Contractor shall comply with the obligations and requirements of the Agreement and Contract Data documents contained in Part C1 including the General Conditions of Contract 2010 (GCC 2010).

The Contractor shall allow for all the responsibilities and obligations in terms of the conditions of contract and contract data, including;

- Risks, costs and obligations in terms of the General Conditions of Contract, the Contract Data and of the standardized specifications, except where provision is made in the Project Specifications to cover compensation for any of these items.
- Head office, site overheads and supervision.
- Profit and financing costs.
- Sureties, employment related expenses, statutory expenses.



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- Indemnities & insurances: The contractor will only be permitted to perform work on the site if a valid insurance policy document and proof of cover or premium payment have been submitted and approved.
- The Contractor shall maintain current registration and have paid the necessary fees to the Compensation Commissioner in compliance with the Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (COID). The contractor will only be permitted to perform work on any site if a valid Letter of Good Standing issued by the Compensation Commissioner has been submitted and approved.
- A detailed program for the execution of the engineering works, Maintenance works and Installation works for the whole of the contract period, listing each plant, its location and fixed dates of maintenance. The contractor will be required to comply with the program at all times.
- Expenses of a general preliminary and general nature not specifically related to any item or items of permanent or temporary work.

11. FACILITIES

The following facilities shall be provided by the contractor for the duration of the contract.

9.1 Administrative Facilities, Equipment and Materials

The following administrative facilities shall be provided.

- Site Instruction Book or E-mail - Will be used as an official correspondence for instructions and liaison. Each generator plant will be supplied with a maintenance register (supplied by contractor).
- Communications Facilities - Telephone (landline) and email services shall be provided at the contractor's offices. Such facilities shall be reliable since instructions and document will be issued electronically to the Contractor.
- Electricity & Water for the Works - The employer will allow the use of water and electricity for construction free of charge. The contractor shall provide suitable temporary facilities such as electricity extension cables, water hoses and water containers as necessary while work is being performed.

12. DESCRIPTIONS OF THE WORKS RELATED TO STANDBY GENERATORS

Foundations - All outdoor generator sets shall be installed on newly constructed or existing plinth, which will form part of this contract. Outdoor Generators shall be installed with canopy, within facility precinct. Outmoded or unrepairable existing generators will be replaced with new



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equipment, either inside existing generator plant-room, on an existing plinth or on a newly constructed re-enforced concrete foundation.

Generator Set – Vary in capacity, water or air cooled, stand-by generator set, mounted on newly constructed or existing plinths, generator plant room and rated for single step full load application is required. Inclusive of AMF or ATS control panel, battery, exhaust and fuel embedded tank. All associated fuel piping and control wiring, etc. All cabling connection and related works included in contract.

Requirements – The Bidder shall guarantee that the diesel/governor and alternator/AVR combination will be compatible with the site loads which can consist of a combination of switch mode and/or thyristor controlled rectifiers and UPS systems etc. This shall be a condition of Tender.

Fuel Tank – The fuel tank shall be an integral part of the base frame of the generator set, with a minimum capacity of 220litres for 30KVA (Three Phase).

The tanks shall be fitted with: Filter, Gauge, Removable inspection cover, Drain, Filler cap. Low level and extra low shutdown/alarm sensors. These shall activate an audible and visible signal on the control panel. Fuel pipe-work is to be in accordance with SANS 62-1: 2013.

Factory Testing – On completion of the generator set assembly: The panel shall be tested, for compliance. The engine shall be tested with the following amendment: Load Test: 5 min. @ 20% load, 10 min. @ 60% load, 20 min. @ 100% load, 20 min. @ 110% load, 5 min. @ Nil load (cool down). The contractor shall supply all fuel, lubricants, connections, consumables, etc. required for the specified testing. On successful completion of the specified testing, the generator set, panel and all equipment, fittings and materials required for the installation of the generator set, as specified shall be delivered to site and installed.

Symbolic Safety Signs – Fuel Tank: Supply and install symbolic safety signs in compliance with SANS 1186-4: 2011. **Generator set:** Supply and install standard safety compliance signs:

- Standard procedure in case of electrical shock.
- "Warning – this machine may start automatically without warning."

Commissioning and Testing – On completion: commission, test and demonstrate to the SAPS, Facility Management, or a representative.

The test shall include:

- Test the fuel system, pumps, float switches etc.
- Test alarms and cut-outs.
- Automatic mains failure test.



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- Test plant status modern facility.
- Earthing.
- Noise level.

Service and Maintenance – Service - a standard service schedules form to be supplied by successful contractor. The successful Contractor shall carry out a 240 hour type or at a six monthly interval service and 480 hour type or at 12 months service (depending on whichever occurs first for date of acceptance or handover). Job cards will be signed off and certified by the relevant Station Commander or SCM Representative. All original job-cards must be attached to the applicable invoices, for payment purposes

Final Delivery - Final Delivery will not be taken unless proof can be provided, by means of signed job cards by the Project Manager/Electrical Representative from Head Office: Facility Management, Programme and Project Management on site, indicating that such services were carried out. The applicable documentation, such as load test certificates, COC, and photo's, should be attached to the job-cards, as part of the supporting documentation. The contractor will supply job cards in accordance with the example including herein. The job card must be completely legibly in black ink after completion of each service and/or maintenance.

Unplanned maintenance

The South African Police Service will report any plant faults or breakdowns (complaints) which may occur. The SAPS personnel (appointed member at facility) will report such plant faults, breakdowns and electrical malfunction to the relevant Provincial SCM, Facility Management, of South African Police Service, who will log the complaint and transmit it by e-mail to the Contractor. The contractor shall respond to the complaint as necessary in accordance with the assigned priority level & the breakdown (complaint) shall be repaired as necessary to restore the plant and / or electrical equipment to full operation in the minimum time. On completion of the complaint remedy the contractor shall complete a Job Card and submit to the Provincial SCM, Facility Management with a copy of the faulty concerned. Job cards will be signed off and certified by the Station Commander/Shift commander or SCM representative. The particular reference number of the Occurrence Book (OB) and/or "Day-to Day" Maintenance Register (SAPS 456) number must be printed on the job card and related invoice. The Contractor shall attach to the Job Card the following documents associated with the complaint.

- Copies of vendor tax invoices for materials used, each endorsed with the Complaint Number, the Contractor's stamp and the Contractor's original signature.
- Travel log sheet for travel exclusively incurred in attending to the Complaint. If the Complaint was repaired during a scheduled service visit to the plant concerned, then the travel log for the complaint shall be appropriately endorsed.
- Further information which may be necessary or instructed.



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The Provincial SCM, Facility Management, South African Police Service, will be responsible for closing the call. The Contractor shall be responsible for obtaining the e-mail of each facility and establishing to whom the e-mail must be sent. Should the contractor not be able to complete the required breakdown repair work within the maximum down-time period allowed, it shall be his responsibility to obtain extension of down-time from the Facility Management, SCM, South African Police Service. The written report shall clearly state the reasons for the extension, as well as the actual extension required. Extension of down-time will only be granted by the SAPS if;

- The maximum down-time is unreasonable in relation to the scope of the repair work required.
- The delivery time of a new component/subassembly/machine or spares required for the repair of the defective component/subassembly do not enable the contractor to successfully complete the repair work within the maximum breakdown down-time allowed. Due to the fact that all the facilities, covered in this project, are totally reliant on Generator supply, any form of breakdown will be regarded as a fatal breakdown priority level.

<u>Priority Level</u>	<u>Maximum Down-Time Allowed (MDTA)</u>
<u>Fatal breakdown where specified (generator plant)</u>	<u>8 hours (immediate response)</u>

"Maximum down time" shall mean the period of time allowed repairing a breakdown, and "actual down-time" shall mean the measured period from the instant when the breakdown was logged with the contractor until the installation has been repaired to its functional specification.

Operation and Maintenance Manuals – The **contractor** shall hand over, at the completion of the WORKS one (1) original and two copies of the necessary operating and maintenance manuals, required for all plant and equipment supplied and installed by him or her as part of the WORKS. A complete description of all operating procedures and safety measures shall be included in the manual. A basic "Fault Finding Guide" shall also be included.

Note: Laminated and framed copies of operating procedures, wiring diagrams, and basic fault finding guides are to be fixed to the inside of the control panel access door. Each copy of the operating and maintenance manual shall be separately bound in an acceptable manner, and shall contain the following data where applicable:

- Scope of Work
- Operating Instructions
- Normal Operation
- Safety Measures
- Fault Finding Guide



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- Equipment Information
- Schedule of Information
- List of Spares and Agents
- Design Data
- As Commissioned Data
- Maintenance Requirements
- Approved Service Schedules
- Manufacturer's Services Recommendations
- Manufacturer's Literature
- Equipment Brochures
- Proprietary Drawings
- As Built Drawings
- Electrical Drawings
- System Layouts and Schematics
- Training Certificates

Maintenance Requirements – The manufacturer's recommendation with regard to the routine servicing and maintenance of all equipment shall be included in the manual. This data shall include the recommended service interval and the estimated hours required for each type of service, for each item of equipment, together with a list of agents/contractors authorized to carry out service/maintenance. All equipment and workmanship will be guaranteed for a period of 12 months or a maximum of 480 hours, whichever occurs first from date of acceptance/handover.

Electrical Connections – Electrical connections to the AMF or ATS panel forms part of this contract, and will be conducted by the appointed contractor. Wiring must be designed and installed as demanded by SANS 10142-1:2017 wiring of buildings.

Training – Training shall be given to two staff members at station, who shall be operating the equipment. Training certificates must be signed on completion of training and proof shall be submitted to Project Manager: Electrical Engineering SCM: Facility Management.

Dimensions – All dimensions/conditions are to be verified on site prior to ordering of fabricating any materials or equipment.

13. MATERIAL AND WORKMANSHIP

The work throughout shall be executed to the highest standards and to the entire satisfaction of the SAPS Project Manager who shall interpret the meeting of the Contract Document and shall have the authority to reject any work and materials, which, in his judgment, are not in full accordance therewith. **All condemned material and workmanship shall be replaced or**



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rectified as directed and approved by the SAPS, Project Manager. All work shall be executed in a first-class manner by qualified tradesman.

The Contractor shall guarantee that the materials and workmanship shall be of the highest grade, that the equipment shall be installed in a practical and first-class manner in accordance with the best practices and ready and complete for full operation. It is specifically intended that all material or labour which is usually provided as part of such equipment as is called for and which is necessary for its proper completion and operation shall be provided without additional cost whether or not shown or described in the Contract Document.

The Contractor shall thoroughly acquaint himself with the work involved and shall verify on site all measurements necessary for proper installation work. The Contractor shall also be prepared to promptly furnish any information relating to his own work as may be necessary for the proper installation work and shall co-operate with and co-ordinate the work of others as may be applicable.

All components and their respective adjustments, which do not form part of the equipment installation work, but influence the optimum and safe operation of the equipment shall be considered to form part of, and shall be included in the Contractor's scope of works. All control equipment and serviceable items shall be installed and positioned such that they will be accessible and maintainable.

The Contractor shall make sure that all safety regulations and measures are applied and enforced during the installation and guarantee periods to ensure the safety of the public and the User Client. The Contractor is to include for all scaffolding and "tools of trade" required for completing the scope of work.

Safety – The Contractor shall comply with the requirements of the Health & Safety Specification referenced above. The contractor shall refer to the site information, and the specifications describing the scope of the Engineering Works, for information about the type of environment in which the work is to be executed. Notwithstanding anything stated in this document the contractor shall be responsible for determining the safety requirements of the site.

The premises in which the generating plant is situated will be occupied by staff during the contract period. Working areas shall therefore be demarcated by means of suitable signs and warning tape which shall be removed on completion of work. Work in building interiors with gas torches or welding machines for joining pipe-work shall be executed with care and temporary protection for any adjacent timber, ceiling, tile roof or other flammable material shall be employed.

A dry powder fire extinguisher shall be provided by the contractor in the immediate vicinity of any work involving flame or electric arc. The contractor will further supply and install one (1) x 9 kg,



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dry chemical powder fire extinguisher in the generator plant-room. A comprehensive H&S Plan shall be prepared and submitted for approval.

A copy shall be available in the contractor's vehicle when attending any site to perform maintenance work. Asbestos risk analysis & safe work procedures shall be included if applicable.

14. SCHEDULE OF EQUIPMENT

The Schedule of equipment offered shall be fully completed by the Bidder.

ENGINE

	KVA RATING: 30KVA, 3 Phase
MAKE	
MODEL	
GOVERNOR	
TANK CAPACITY(L)	

ALTERNATOR

	KVA RATING: 30KVA, 3 Phase
MAKE	
MODEL	
GOVERNOR	

ENCLOSURE

	KVA RATING: 30KVA, 3 Phase
MANUFACTURER	
MODEL	

CONTROL PANEL

	KVA RATING: 30KVA, 3 Phase
PANEL	
MANUFACTURER	
MODEL	

15. TECHNICAL SPECIFICATIONS

General – This technical specification is for diesel driven standby generators with automatic mains failure controls.



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The Diesel Engine – This includes for all requirements of the engine, mountings, coupling, etc. up to the generator.

The Generator/Alternator – This covers the requirements of the electrical generating plant complete with automatic voltage regulation, etc.

Control Panel – This item covers the entire protection, changeover, timing sequence, etc. for both engine and generator.

Outdoor canopy specification: –

General:

The enclosure must be completely vermin-proof, removable from the generator set and must be constructed of 3CR12 stainless steel of a minimum thickness of about 1.5mm, when within 80 kilometers from the coast line, alternatively mild steel.

The enclosure must allow easy access to the engine, alternator, radiator filler cap and control cubicle for maintenance purposes.

The door will be flush with the rest of the canopy and of the side opening type. A minimum of four doors are required that is to on either side.

The door hinges and locking bars will be of a heavy duty type and manufactured on an alloy or mild steel which is hot dip galvanized and will be fitted with a grease nipple.

Suitable door restraints must be fitted to all the doors, enclosure including the control panel to prevent wind damage. The restraint will consist of a steel rod in a steel groove or slide with a spring loaded catch, which is to be manually regenerator set to close the door.

No flexible restraints will be accepted.

The diesel fuel level indicator and alternator rating plate must be visible with the doors open. Unless specified, the silencers will be mounted on the roof of the enclosure.

Perforated sheeting will be fitted over all the insulating material inside the canopy of all soundproof generator sets

Rubber seals on the door will be equal to or similar to rubber pinch weld, wind lace (Max – Norton).

Design:



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The enclosure must be designed to be weather-proof (IP65) and sound-proofing as specified. Rivets or self-tapping screw must be under no circumstances be allowed for fixing the various sections of the enclosure. Only cadmium coated nuts and bolts are acceptable.

The roof of the enclosure must be constructed for proper drainage of water.

Lamp fitting:

A lamp fitting and it's associated on/off door switch will be inside the enclosure for illumination of the control panel.

Sound proofing:

The sound proofing on canopy engine generator sets will be such that the maximum noise level generated by the generator set under any load condition will not exceed 75 db measured in any direction at a distance of 7meters from the center of the generator set with the doors closed.

The supply and discharge air paths will require separate attenuators on soundproof generator sets.

Padlock and keys:

Padlock and keys will be supplied for all the doors of the enclosure. The padlock will be of the A82 keyed or close to that with stainless steel shackles type.

Suitable brass metal plates will be installed behind each lock for the protection of the enclosure against scratching or damaging, where the locks are hanging.

Concrete plinth – The plinth shall be constructed by the contractor. The generator set shall be mounted on a concrete plinth. The plinth shall be constructed on a ripped and re-compacted subgrade of 100 mm thickness, compacted to a minimum of 95% Mod AASHTO.

The generator set shall be mounted on a cast-in-situ reinforced concrete plinth with a minimum concrete strength of 25 MPa. Furthermore, concrete strength test results for 7days, 14 days and 28 days shall be submitted. To acquire maximum strength a minimum duration of 28 days should be allowed for concrete curing and shall be done continuously.

The top of the plinth shall protrude at least 200mm above the final surrounding, from ground level. The concrete plinth shall protrude approximately 100mm beyond the edges of the generator set to form an apron. The concrete apron and plinth shall be wood float to a smooth surface finished and shall slope from the base to permit rain water runoff. Finished plinth level shall be confirmed prior to casting. Cable ducts shall be provided in the plinth to accommodate all the incoming and outgoing cables. The cable ducts shall be sealed to prevent entry of rodents. The earth mat will



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be installed at a minimum depth of 1200 mm below the plinth with earth spikes (or in accordance with ground impedance).

Palisade fencing – To be performed by contractor. Generator set to be enclosed with palisade fencing and matching gate. All palisade fencing, gates and components shall be galvanized to SANS 301-12:2004 standards. All poles and horizontal bearers shall be manufactured from 2mm cold rolled steel formed material. All pales shall be fixed with anti-vandal bolts and fastened with shear off nuts. Complete installation shall be of a minimum height of 1800mm. Posts shall be fitted within concrete foundations of 500x500x500. The swing gate will be manufactured to match the palisade accordingly. The palisade fence shall surround the generator and it shall be 1.5m apart from the generator. A non-compliance Palisade Fence shall be replaced by galvanised Palisade Fence as per specification.

16. MECHANICAL PRIME MOVER – DIESEL ENGINE

Engine Specifications:

Design:	In-line, naturally aspirated (4 or 6 cylinders)
Starting Voltage:	12 volt, negative ground
Fuel System:	Direct Injection
Fuel Filter:	Spin-on fuel filters with water separator
Air Cleaner Type:	Dry replaceable element
Lube Oil Filter Type:	Spin on full flow filter
Standard Cooling System:	50°C ambient radiator with coolant Recovery System

General – The engine may be turbo-charged or naturally aspirated.

Speed and Number of Strokes – The engine must be of the four strike solid injection, compression ignition type, with running speed, for reciprocating engines up to 750kW, not exceeding 1500rpm.

Fuel Classification – The engine shall be rated for diesel fuel as normally available in the applicable area and in compliance with SANS 342:2016

Rating of Plant – The rating of the engine shall take cognizance of the site conditions, site altitude and include all auxiliary equipment such as radiator and fan, oil pump, water pump, air filters, governor, battery charger (generator) etc. The engine output must be re-rated in accordance with SANS 8528-1:2008 for the site conditions stated in the particular specification.

Overload Facility – The set shall be capable of delivering 10% overload for (1) hour in any 12-hour period of continuous running. The engine must be supplied complete with an automatic controlled rated at 40% of full load capacity of the Generator set.



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Engine Appearance – The engine shall be of neat appearance and all water, lubricating and diesel oil lines, filters and stopcocks shall be of top quality and completely leak free.

Time Limits – The starting period from “switch on” until the take-over of the full load shall not exceed 10 seconds.

Service Connections – All service connections to the engine shall be flexible to prevent vibration being transmitted between plant and building, and to prevent damage to these lines and connections.

Support Framework – The engine and generator shall be mounted on one common steel-supporting frame manufactured of channel iron or other equivalent steelwork to provide a rigid and solid foundation. The main frame shall be of “skid” base type. If no “skid” base is provided, suitable for free standing, holding down bolts and vibration eliminators to the generator set manufacturer’s specification must be provided. This sub-frame shall be supported from a main frame by anti-vibration mountings. Duplex anti-vibration mounts shall be used. The inner frame and its supports shall be of sufficient height above floor level to permit installation of a drip tray and for drainage of engine oil. The drip tray must be sloped and made of mild steel. It must be fixed in the frame beneath the engine and alternator and a drip pipe fitted with a plug must be extended from the lowest point of the drip tray to beyond the frame in an easily accessible position. The outer casing of the alternator, the engine, the sub-frame and main base frame shall be bonded together electrically and connected to the earth via a connection to the earth bar in the control panel and from there to an earth mat.

Heat Protection – All engine piping, whether flexible or rigid, shall either be of the heat resistant type or adequately protected against damage by radiant heat. This also applies to any wiring attached to the engine.

Crankcase Vent Pipe – The crankcase vent pipe shall be taken to the drip tray to collect oil condensate.

Bearings – Engine bearings for the crankshaft and connection rods, big and small ends shall be of the bush type, split sleeve type, or roller type. The bearing types and metals shall be suitable for operating in the worst site conditions.

Lubrication – The lubrication shall be by means of the force fed pressure system supplying circulating oil to all bearings, gear trains and important moving parts. A gear driven oil pump shall be incorporated with an oil-cooler if necessary. The oil cooler shall have a thermostatically controlled oil bypass valve to control the oil inlet temperature by proportionate by passing 250 Hour running time, full flow oil filters with automatic bypass and replaceable elements shall be



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fitted. An isolating valve shall be fitted in the oil line from the makeup tank to the sump in order to facilitate sump draining without the loss of new oil from the makeup tank.

Cooling – Air ducts shall be provided to positively exhaust hot air and to prevent re-circulation. Integral engine mounted fans are required to ensure airflow across the various components in the order listed above. Discharge ducting must be taken straight up through the roof of the plant room and must be made with strategically placed flange joints, etc. to enable the removal of the set without having to remove the ducting. Quick action type lock nuts or screws to enable quick and easy dismantling of ductwork are required. Self-tapping screws are unacceptable. The ducting must be fixed to the roof structure and must be flashed to render the exit point waterproof and must be fitted with an expanded metal bird screen at the discharge end(s).

Speed Control – Speed governing shall be by a solid state, asynchronous electronic speed governor conforming to SANS 8528-1:2008. The SAPS reserves the right to inspect the locally available stock of spares prior to granting approval for the use of any particular type of speed regulator. The speed regulation (droop) of the governor shall be adjustable between 0% and 15%, and the steady state speed band 0, 25% asynchronous control. The operating voltage for the governor shall be the nominal voltage of the starting battery (normally 24 volts). Speed variation of the set between no load and full load may not exceed 4%. Engines must be fitted with flywheels correctly sized to eliminate visible flicker of lights fed by the generator set. Cyclic irregularity must be as stipulated in SANS 8528-1:2008.

Air System – The air system shall consist of two items, via the incoming combustion air and the exhaust air.

Combustion Air – Combustion air filtration shall be by means of dry type, cartridge, high efficiency air filters fitted and sized for 500 hour operation and supplied complete with a service indicator. Oil bath air filters may be fitted and used in existing plant only.

Exhaust Gas – Exhaust gas shall be piped, the piping being fitted with expansion joints and silencer and discharged to atmosphere. The expansion joints shall be of the stainless steel, concertina type, flexible, flanged and bolted to the exhaust manifold or turbo-charger outlet as applicable. Stainless steel bolts and nuts of the appropriate size must be used. Care must be exercised that exhaust pipe and silencer supports at the expansion joints are so positioned that no strain is placed on the manifold joint, turbo-charger, piping or silencer. The silencer shall be of stainless steel, of the baffle or absorption type of a size construction such that sound level of 75 dB absolute is not exceeded within seven meters of the exhaust. The exhaust pipe shall be of stainless steel, insulated, and sufficient size to ensure that the backpressure is acceptable within the limits of the engine manufacturer. The exhaust system shall be offset from the center line of the plant to allow for hoists or cranes to remove the engine. Stainless steel nuts and bolts must be used in assembling the exhaust system. Flanged joints are required to aid dismantling. Exhaust piping over 100mm diameter must have a minimum thickness of 1,6mm.



Engine Fuelling – Engine fuelling shall be by means of an engine mounted pump with the governor controlled fuel injection pump(s) and injectors all arranged for easy access and maintenance. A fuel filter with replaceable elements shall be fitted between the lift pump and the injection pump, suitable for the full flow of fuel at a full load. The filter must take out particles down to 5 microns in size, or less by approved manufacture. A primary, heavy-duty filter/water separator shall be fitted before the lift pump in the fuel line from the tank. This water separator shall be of an approved manufacture, shall be suitable for 250 hour operation and to be easily maintained. Copper tubing shall be used from the sludge filter to the engine components, but steel tubing may be used on the overflow from the injectors to the fuel tank.

NOTE: Galvanized piping is not acceptable.

Starter Motor – Starting of the plant shall be by means of an engine mounted electric starter motor. The starter motor(s) shall be suitable sized to easily spin the plant under “cold start” winter. The starter motor(s) shall be 12 or 24 volts DC fitted with an approved device for positive engagement. The starter motor shall be controlled from the plant panel.

Battery – The battery shall be 12 volt low maintenance type suitably sized to start the engine. The battery shall be as close as is practical to the starter motor, but separate from any vibrating parts of the set. The battery discharge capacity with full cranking current for 60 seconds at a temperature of 5°C shall not fall below a cell voltage of 1, 5 volts. The voltage is considered the minimum to satisfactorily operate the 12 or 24 volts. DC control equipment on the control panel (i.e. after three starting attempts, each of 10 seconds, the panel control voltage shall not be below 20 volts DC). The battery cables must be run clear of all exhaust piping and other hot surfaces and must be fixed in position so as to ensure correct reconnection of the cables in the event of the battery being changed or removed. The cables must be liberally sized in order to minimize the voltage drop to the starter motor.

Protection Equipment on Engine – Alarm signal system in wall mounted or floor standing control board for indicating “shut down” of the following items:

- Fail to start/starter circuit lockout.
- High water temperature (sensed on engine side of the thermostat) or high head temperature in the case of air cooled engines.
- Low oil pressure.
- High oil temperature.
- Low fuel pressure.
- Engine over/under speed (sensed through alternator frequency).

- Gauges in the floor standing control pane showing:



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- Lubricating oil pressure.
- Engine water temperature.
- All necessary sensors for alarm circuits.
- All necessary fuel cut off solenoids.
- A manual shut off valve before the lift pump in the fuel line at the day tank.

Fuel Piping – The fuel lines shall all be medium class steel to SANS 62-1: 2013 (but not galvanized) with appropriate bends to provide an expansion facility. Copper shall only be used from the primary filter to the engine pumps. All underground piping shall be fully wrapped with Denso tape (or similar, equal and approved equivalent). The tape wrapping shall have a minimum overlap of 15mm. A fusible link mounted directly above the set and connected to a dead weight operated fuel shut-off valve is required.

Fuel Pumps – A diesel fuel pump, suitably sized, shall be fitted on the day tank. This shall be a centrifugal pump complete with electric motor, starter, and isolator and float switch. Level control and float switches for control of the pump shall be mounted on the services tank. Float switches shall be level controller by approved manufacture. Three float switches will be required, one to operate the pump (on/off), one for a low level alarm and the other for an extra low level engine cut-out. A facility for running the pumps manually is required. In addition a float switch is required in the bulk tank wired to operate a low level alarm and to disable the electric fuel transfer pump(s). It must be possible to mute all alarms but the indicator light(s) must remain on until the tank(s) are re-filled at which time they should cancel automatically. The float switches shall be of such a type that they can be tested manually without opening the tank(s). They must further be installed in such a manner that they do not foul each other. In addition to the electric pump a manual hand pump shall be incorporated into the fuel line to be operated in the event of power failure. Each pump must have fuel isolating valves on either side of the pump to cater for servicing. A non-return valve is required after each of the electric and hand pumps to prevent short cycling.

17. ALTERNATOR

General – The alternator shall be suited for low speed operation, self-excited, brushless, 3 phase and/or single phase, complying with SANS 60034-1:2010. To be determined by site conditions and loads.

Rating – The rating shall be based on a power factor 0,8 shall be not less than the rating of the prime mover/engine. In addition to rating shall take into account the site location, height above sea level and the conditions of the engine room. The KVA rating shall also include for a 10% overload for one hour in any 12 hour period and shall be sustained at a temperature of 40°C.



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Enclosure – The housing shall be closed, self-ventilated, drip proof enclosure with screened apertures. The enclosure will incorporate two bearings of the grease able, dust proof, ball or roller type.

Windings – Windings shall be tropically insulated, fully impregnated with oil resisting anti-track varnish. Stator windings shall have a minimum Class F insulation. Both the rotor and the armature shall be within the limits SANS 60034-11:2005. The rotor windings shall be suitable braced, balanced and reinforced to allow for over speed of 20%. All magnetic poles shall be of the laminated type, reducing eddy currents.

Excitation and Regulation – Excitation shall be provided by means of the standard, rotating armature AC exciter mounted on the main shaft. The AC exciter shall be coupled to a full wave automatic voltage regular (AVR). The rotating silicon diodes shall have electrical protection against voltage spikes (selenium diodes or other approved means). The entire exciter shall be brushless, self-ventilating, solid state with AVR. The automatic voltage regulator must also be suitably protected should the frequency fall below 48 Hz. The self-regulation of the alternator and exciter shall not exceed plus or minus 2,5% of the nominal voltage at all loads with the power factor between unity and 0,8; and within be provided for a range of +5% to -5% of voltage.

Performance – The normal, nominal voltage shall be 400 volts/230 volts, 3 phase or single phase, 50 Hz alternating current, with full-load and a power factor of 0,8. The frequency shall be maintained to within 2% of the sated 50 Hz under steady load conditions. The generator shall have the following limits:

- Voltage variation: -5% to +5% at 380 V.
- Transient voltages: -20% to +15% returning within 30 cycles, line to line.
- Unbalanced voltages: 2, 5% of arithmetic average.

The alternator shall comply with the radio interference suppression requirements of BS 800 of 1997 and Telkom (latest regulations).

Wave Form – A good sinusoidal waveform free slot triple is essential. At no-load the waveform distortion shall be less than 2%. At full load unity and 0, 8 power factor (p .f) lag linear loads the total waveform distortion shall be less than 5% with no individual harmonic exceeding 3%. The maximum waveform distortion of the alternator voltage when supplying 70% non-linear load shall not exceed 15%.

18. CONTROL PANEL



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The controller will provide a number of control and monitoring features with expansion capability, to meet remote communications. The controller will meet power measurement, including full power monitoring instrumentation and powerful auto-sync functions. The controller will interface to the engine governor and AVR. The controller will be fitted with a RS232 port in order to allow comprehensive remote control and monitoring.

Control – A programmable logic controller is required, with an event logging facility. Provides a record of the most recent fault conditions with control hours' time stamp. Up to 5 events are stored in the control non-volatile memory.

Sheet Metal Work – The control panel and components shall be of approved design, manufacture and construction and shall be complete in all respects with all necessary equipment, bars, connections, wiring and accessories. The panel shall be robustly constructed, shall be in accordance with standard accepted practice, comply with the relevant S.A.N.S. Code of Practice, and shall have an attractive appearance. The panel shall be totally enclosed, dust and moisture proof as well as rodent and insect proof.

Components – All components where possible shall bear the SABS mark. Bus bars and connections shall be adequately tinned, shall conform the SANS 1195:2010 and be taped with distinctive phase colors for the full length. Bus bars and connections must be compatible with the fault rating of the switchgear. Adequately rated full length extendible copper earth bars shall be fitted. All components shall be suitably rated for their application and the switchgear shall be suitable for the site and location. Space shall be provided for the incoming and outgoing cable circuits. All cut edges and drilled holes of Bakelite or similar insulation board must be treated with electrical varnish. All equipment levers, handles, keys, etc. required for operation of the panel must be included together with suitable clips or trays to store these when not in use.

Guarantee – The whole of the panel and components shall be guaranteed for a period of 12months/480 hours depending on whichever occurs first from date of acceptance or handover.

Equipment – The following equipment shall be included in the panel (or similar approved). All fuses, circuit breakers, control and other equipment will be installed in compliance with the manufacturer's ratings, instructions and regulations (combined LCD digital display).

- Timers for power return, mains return, etc.
- Programmable logic controller and phase failure and phase reversal relay.
- Illuminated re-settable fault indicators, coupled to a common continuously rated hooter or low current electronic type yodel alarm for: low oil pressure, high oil temperature, high water temperature, engine over speed, failure to start, alternator overload, low fuel level, extra low fuel level engine trip.
- Mode selector switch for:



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- Off/Reset: Control system off and alarm condition reset.
 - Auto: Automatic starting and stopping of the set.
 - Manual: Starting and stopping activated manually (in this mode the load will not be transferred in the event of mains failure).
 - Test: The set will start automatically and the load will be taken by the alternator in the event of mains failure.
-
- Battery charger.
 - By-pass mains selector.
 - Main isolator for outgoing circuit.
 - MCB's for: Battery charger, Jacket water heater, Fuel transfer pumps.
 - One surge arrestor (as per SANS 60099-5:2018) per phase fitted to the main circuit breaker.
 - SMS Alert/Notification interface to allow for remote control via cell phone communication.

Sequence of Operation – The control panel shall be so designed to provide the following:

- A mains voltage/phase failure sensing relay which in the event of a mains failure the timing sequence shall be:
- A positive disconnection of the mains via the operation of the auto changeover switch – this shall also be effective in the event of single phasing or phase angle deviation.
- An immediate command to the engine to start.
- Once the engine is up to “speed”, and the “mains” have not been restored, the changeover switch shall immediately close.
- In the event of the “mains” being restored after the start-up time of the engine, but before changeover to alternator supply, a timer shall hold the engine in the run position for approximately 1 minute before allowing the engine to “close down”. Thereafter the engine close down shall proceed as described hereunder.
- Upon return of the “mains supply” when the alternator is on load a timer shall delay changeover for a further three minutes (to confirm continuity of supply). After changeover to “main supply”, an adjustable timer (1 to 5 minutes) shall delay engine close down.
- Once the command to start has been given, three start attempts shall be allowed each of 10 seconds delay between each attempt. In the event of failure to start within 3 initial attempts, the starting system shall switch off and a L.V. alarm shall be initiated. Any further starting attempts may be only carried out when the plant is in the “manual” position.



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- Fault reset after identification and rectification off same shall be by switching the selector to the "off" position and then back to the desired mode.

		Hooter or Siren	Visual Light Indicator	Lock Out	Fuel Solenoid Off
	Over speed	X	X	X	X
	Under speed or Overload	X	X	X	X
	High Temperature	X	X	X	X
	Low oil Pressure	X	X	X	X
	3 Start Failure	X	X	X	X
	Lower Fuel Alarm	X	X		
	Battery Charger Failure	X	X		
	Selector Switch not in Auto		X		
	Extra low Fuel Cut-out	X	X	X	

All the above shall have the necessary re-set buttons.

Battery Charger – The charger module shall be mains (230 V) operated unit to continuously trickle charge the engine starter battery. It must be of the automatic modulating type. A "loss of charge" alarm relay shall be provided to indicate failure of the charger. This should be a current monitor. The output voltage (27,6 volts DC or 13,8 volts if applicable) shall be via full wave rectification and be kept within 1% of the float charger voltage. The 230 volt input voltage may vary between 207/253 volts and the equipment, (transformer etc.) must be capable of handling this discrepancy. During the "cranking/start" period and during running of the diesel engine the battery charger shall be disconnected via a relay. Charging of the battery shall then be by means of engine mounted alternator.

The battery charger shall be fully incorporated into the main control panel.

Ventilation– The position of the battery charger must not be placed under any switch gears or relays to allow good ventilation.

19. SPECIFICATIONS FOR MATERIALS AND EQUIPMENT OF ELECTRICAL INSTALLATIONS

19.1. Distribution Board (DB)

The construction must be in accordance with SANS 10142-1:2017.



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All distribution boards must be surface mounted and must have doors.

Openings into distribution boards must tie up with the installation.

19.2. Cable Trays

19.2.1. Metal Cable Trays

Metal cable trays shall be manufactured from perforated rolled steel. Metal trays manufactured to the following standards shall be use:

- Less than 150 mm wide 1,2 mm minimum thickness with 12 mm minimum return.
- 150 mm to 457 mm 1,2 mm minimum thickness with 19 mm minimum return.
- 460 mm to 610 mm (Heavy duty) 2,5 mm minimum thickness with 76 mm return.

19.2.2. Accessories

Horizontal and vertical bends, T-junctions and cross connections shall be supplied by the Contractor. The dimensions of these connections shall correspond to the dimensions of the linear sections to which they are connected. The radius of all bends shall be 1m minimum. The inside dimensions of horizontal angles or connections shall be large enough to ensure that the allowable bending radius of the cables is not exceeded. Sharp angles shall be 45° mitered.

19.3. PVC - Insulated Cables

This section covers the requirements for PVC-insulated cables for general installations under normal environmental conditions.

Cables shall be manufactured in accordance with SANS 1507-3:2015, shall come only from fresh stocks, and shall be constructed as follows:

- Armored cables PVC-insulated/PVC-bedded/ armored/black extruded PVC outer sheath.

Cable shall be manufactured and supplied in one length to the lengths specified unless these lengths exceed a standard drum length in which case a ruling shall be obtained from the SAPS.

At the option of the SAPS acceptance tests shall be carried out on production runs of the cable in accordance with SANS 1507-3:2015.

19.4. PVC - Sheathed Aluminium-Covered Cables



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Aluminum-covered cables shall comprise PVC-insulated copper conductors protected by an aluminum foil tape screen and a PVC sheath. Cable ends shall be made off with compression glands fitted with a neoprene ring to seal the end. Aluminum sheathed cable shall be installed on surface only using matching saddles installed at suitable intervals to prevent sagging. Where exposed to sunlight, the cable shall have a stabilized black outer sheath.

19.5. Labelling

Care shall be taken to ensure that all equipment is fully labelled and that accurate descriptions and safety warning notices appear in English.

Engraved plastic or ivory-sandwiched strips shall be used throughout. The strips shall bear white lettering on black background for normal labels and red letters on a white or yellow background for danger notices.

19.6. Circuit breakers

All moulded-case circuit breakers shall be flush mounted with only the toggles protruding. Miniature circuit breakers may be installed in clip-in trays mounted on the frame. All other circuit breakers shall be bolted to the chassis. Special provision shall be made for large main switches when designing the framework. Care shall be exercised that the rear studs of circuit breakers are properly insulated from the steel chassis. Where necessary, insulating material shall be installed that the toggles are in the up position when "ON" and "OFF".

20. INSTALLATION OF CABLES

This section covers the installation of cables for the distribution of power in buildings, other structures and in ground for system voltages up to 11 kV, 50 Hz.

20.1. Cable Types

- All cables and jointing and termination accessories used for power distribution shall comply with SANS 10142-1:2017.
- Cables with copper conductors shall be used throughout unless otherwise specified or approved.
- All unarmoured cables shall be installed in metal trunking, sleeves or conduits unless clearly specified to the contrary.
- XLPE Cables shall only be used in exceptional circumstances with the written permission of the Project Manager: SCM Facility Management.

20.2. Identification of Cables



- Cables shall be identified at all terminations by means of punched metallic bands or marked with labels or tags. (Also refer to SANS 10142-1:2017).
- The use of PVC tape with punched characters is not acceptable.
- The identification numbers of cables shall be shown on "as-built" drawings of the installation.

21. TRENCHING

- The Contractor shall be responsible for all trenching excavations unless specified to the contrary.
- The Contractor shall, before trenching commences, familiarise himself with the routes and site conditions and the procedure and order of doing the work shall be planned in conjunction with the general construction programme for other services and building requirements.
- The Contractor shall acquaint himself with the position of all the existing services such as storm water pipes, water mains, sewer mains, gas pipes, telephone cables, etc. before any excavations are commenced. For this purpose he shall approach the local municipal authority and any other authority which may be involved, in writing.
- The Contractor will be held responsible for damage to any existing services brought to his attention by the relevant authorities and shall be responsible for the cost of repairs.
- The Contractor shall take all the necessary precautions and provide the necessary warning signs and/or lights to ensure that the public and/or employees on site are not endangered.
- The Contractor shall ensure that the excavations will not endanger existing structures, roads, railways, other site constructions or other property.

21.1. Trenching

- Trenching shall be programmed in advance and the approved programme shall not be departed from except with the consent of the Project Manager: SCM Facility Management.
- Trenches shall be as straight as possible and shall be excavated to the dimensions indicated in this specification.
- The bottom of the trench shall be of smooth contour, and shall have no sharp dips or rises which may cause tensile forces in the cable during backfilling.



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- The excavated material shall be placed adjacent to each trench in such a manner as to prevent nuisance, interference or damage to adjacent drains, gateways, trenches, water furrows, other works, properties or traffic. Where this is not possible, the excavated materials shall be removed from site and returned for backfilling on completion of cable laying.
- Surplus material shall be removed from site and disposed of at the cost of the Contractor.
- Trenches across roads, access ways or footpaths shall not be left open. If cables cannot be laid immediately, the Contractor shall install temporary "bridges" or cover plates of sufficient strength to accommodate the traffic concerned.
- In the event of damage to other services or structures during trenching operations, the Contractor shall immediately notify the SCM Facility Management and institute repairs.
- Prior to cable laying, the trench shall be inspected thoroughly and all objects likely to cause damage to the cables either during or after laying shall be removed.
- Where ground conditions are likely to reduce maximum current carrying capacities of cables or where the cables are likely to be subjected to chemical or other damage or electrolytic action, the SCM Facility Management shall be notified before installing the cables. The Project Manager: SCM Facility Management will advise on the course of action to be taken.

21.2. Dimensions of trenches

- A trench must be excavated at a depth of 500mm and a width of 300mm. An electrical warning tape must be laid 300mm above the depth of 500mm trench.
- The width shall be increased where more cables are installed to allow for the spacing as stipulated above.
- Where trenches change direction or where cable slack is to be accommodated, the Contractor shall ensure that the requirements of the relevant SANS 10198-8:2016 specification regarding the bending radii of cables are met when determining trench widths.

21.3. Joint Holes

Where cable joints are required to be made in the course of a cable run, a joint hole shall be excavated of sufficient size to enable the cable jointer to work efficiently and unimpeded.

21.4. Bedding



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- The bottom of the trench shall be filled across the full width with a 75 mm layer of suitable soil sifted through a 6 mm mesh and levelled off.
- Only sandy clay or loam soil with a satisfactory thermal resistivity (not exceeding 1.5 °C m/W) may be used for this purpose. Sea or river sand, ash, chalk, peat, clinker or clayey soil shall not be used. The use of crusher sand is acceptable.
- Where no suitable soil is available on site, the Contractor shall import fill from elsewhere and make all the necessary arrangements to do so. The cost of importing soil for bedding purposes shall be included in the unit rates for excavations.
- After cable laying, a further layer of bedding shall be provided to extend to 75 mm above the cables.
- The bedding under joints shall be fully consolidated to prevent subsequent settling.

21.5. Cable Sleeves

- Where cables cross under roads, railway tracks and other service areas, etc. and where cables enter buildings, the cables shall be installed in Polyethylene (6 mm thickness), pipes or earthenware pipes. Pitch fibre and PVC pipes are not acceptable because of the adhesion that occurs after a period of time between the pipe and the sheathing or outer serving of the cables.
- Pipes shall be joined in accordance with the manufacturer's instructions.
- Sleeves shall cross roads and railway tracks at right angles.
- A diameter of 110 mm cable sleeve to be installed at the standby generator plinth and also where the cable is crossing the roadway.
- Cable sleeves shall be installed to the spacing and depths stated below.
- Galvanised metallic sleeves up to and including 76 mm dia. shall be supplied and installed by the contractor.
- The ends of all sleeves shall be sealed with a non-hardening watertight compound after the installation of cables. All sleeves intended for future use shall likewise be sealed.

21.6. Backfilling



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- The Contractor shall not commence with the backfilling of trenches without prior notification to the SCM Facility Management so that the cable installation may be inspected. Should the Contractor fail to give a timeous notification, the trenches shall be re-opened at the Contractor's cost. Such an inspection will not be unreasonably delayed.
- The tape shall be yellow, marked with the words "**ELECTRICAL WARNING TAPE**" in black.
- Backfilling shall be undertaken with soil suitable to ensure settling without voids. The maximum allowable diameter of stones present in the backfill material is 75 mm.
- The Contractor shall have allowed in his tender for the importation of suitable backfill material if required.
- The backfill shall be compacted in layers of 150 mm and sufficient allowance shall be made for final settlement. The Contractor shall maintain the refilled trench at his expense for the duration of the contract. Surplus material shall be removed from site and suitably disposed of.
- On completion, the surface shall be made good to match the surrounding area.
- In the case of roadways or paved areas the excavations shall be consolidated to the original density of the surrounding material and the surface finish reinstated.

22. INSPECTIONS, TESTING, COMMISSIONING AND HANDING OVER

22.1. PHYSICAL INSPECTION PROCEDURE

- Once the Contractor has completed the installation, written notice shall be given to the Project Manager: SCM Facility Management in order that a mutually acceptable date can be arranged for a joint inspection.
- During the course of the inspection, the Project Manager/Engineer will compile a list of items (if any) requiring further attention. A copy of this list will be provided to the Contractor who will have a period of 7 days in which to rectify the offending items of the installation.
- The Contractor shall then provide written notice that he is ready for an inspection of the remedial work to the offending items.
- This procedure will continue until the entire installation has been correctly completed to the satisfaction of the Project Manager/Engineer.

22.2. TESTING AND COMMISSIONING



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- All installed equipment shall be commissioned and tested as per the manufacturer's recommendations. The results of all tests must be recorded and submitted to SAPS, SCM, Facility Management for approval.
- Routine factory tests reports shall accompany all equipment supplied and shall be given to the SAPS, SCM, Facility Management, prior to the equipment being installed and commissioned.
- Contractor to provide COCs and all relevant test certificates to SAPS Project Manager/Engineer prior to energizing of equipment.

23. CLEANING OF SITE

- After completion of construction activities, the contractor shall remove all his equipment and site facilities from the site and leave the site in a tidy condition. The cost thereof must be included for in the P & G's.

24. PREAMBLES TO SCHEDULE OF QUANTITIES

PRICE SCHEDULE

General – The Schedules of Quantities define the scope of the Engineering Works in terms of the measurement and payment parameters specified. The Schedules shall be read in conjunction with the General Conditions of Contract. The quantities stated on the schedules are provisional and are subject to re-measurement upon completion. Bidders shall quote for all equipment and all accessories specified within this document. The procurement of this equipment shall take place as needed, spread over the one year period. Servicing and maintenance of all newly installed equipment and components and guaranteeing free of defects for the full maintenance period of one year, will form part of this contract.

Descriptions & Measured Items – The Schedule of Quantities consists of Descriptions followed by measured items (Item lines) which specify the items of differing dimensions, ratings, etc. which comply with the overall requirements of such Description. The measured items may add, subtract or in any other way vary the Description. Below each item line the measured quantities applicable to each of the applicable sections of the Works appears under the relevant column heading, the total of which is shown under the Quantity column. The terms used and Schedule layout are defined in the *Schedule of Quantities* Legend which is presented at this Preamble. The Schedule of Quantities is based upon the Standard system of measurement modified as necessary. **Fixed Rates** – Rates shall be fixed for the duration of the contract. **All inclusive** – The Descriptions and item lines are of necessity abbreviated summaries of the specifications and unless otherwise stated or elsewhere measured, shall include all necessary components and accessories required or necessary for the correct functioning or performance of the item when incorporated into the Engineering Works. The rates and prices shall accommodate the nature of the Engineering Work



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and any restrictions which apply to the Works Environment and the Site of the Works, shall include all the costs and expenses that may be required in and for the construction of the Works described and shall include the cost of all general obligations, risks and liabilities stated or implied in the contract documents.

25. SCHEDULES OF QUANTITIES

NIEUWOUDTVILLE POLICE STATION					
NORTHERN CAPE PROVINCE					
NOTE: THE FOLLOWING WORK IS TO BE CARRIED OUT BY AN APPROVED SPECIALIST SUPPLIER. Supply, deliver, install, commissioning and maintenance of Standby Generator: 30KVA, 3 Phase, including all components and sundries, tests, etc. required to bring the installations to the working order intended & comply with written guarantee.					
Item No	Description	Unit	Qty	Rate	Amount
1	Preliminary & General: 1.1. Site Establishment; 1.2. Prepare & submit Health & Safety Plan; 1.3. Prepare & submit Programme of the works; 1.4. Removal of Rubbish & waste on site; 1.5. Warrantee agreement for 12 months	sum	1		
2	Supply, deliver and install new outdoor Standby Generator: 30KVA, 400V, 3 phase, as per Specification, including protection gear, all accessories (Incl. Transport)	No.	1		
3	Factory load test of the specified for 30 KVA Standby Generator, inclusive of fuel, consumables, load bank etc.	No.	1		
4	Supply and construct the plinth on site, the top of the plinth shall protrude at least 200mm above the ground level and 100mm beyond the edges of the generator set. (Inclusive of Concrete strength test result Certificate of 7days, 14days and 28days)	sum	1		
5	Supply diesel fuel: Commissioning and replenishment during inspections	L	220		
6	Site hand-over inspection with the client at Station	No.	3		
7	Construct and install complete Galvanized palisade fencing, including matching entrance gate and locking mechanism (palisade to be 1m away from generator)	sum	1		
8	Supply and install symbolic safety signs	No.	1		



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9	Excavation depth of 0.5 m and width of 0.3 m of soft/rock/hard rock and backfilling	m ³	10		
10	supply and install XLPE cable, low voltage, 4 core PVC/SWA SHEATHED 10mm ²	m.	100		
11	supply and install PVC, non-sheath copper conductor/cable, low voltage single core, stranded 6mm ²	m.	100		
12	Supply and install 60 Amp, three pole 6kA, circuit breaker	No.	1		
13	Training of end user operating staff (two) in the station and submit proof thereof to Project Manager	No.	2		
14	Supply operating instructions, maintenance manuals and fault finding instructions and symbolic safety sign	sum	1		
15	Reinstate concrete/paving and installation of electrical warning tape.	m ³	10		
16	Safety compliance as per OHS act and specification, including DCP Fire extinguisher Cabinet and 9 kg dry powder fire extinguisher combo in the generator plant	No.	1		
17	Generator services: Six monthly service: 30KVA, 400V, 3 Phase	No.	2		
18	Supply and install cable sleeve pipes: HDPE sleeve to SANS/SABS specification: 110mm	m	12		
19	Supply and installation Cable line PVC Trunking 75 x 75mm	m	24		
20	Testing and Certification: Certification of Compliance (COC), with regards to all electrical reticulation, connections, wiring, equipment & commissioning of new generator	No.	1		
21	Artisan	Hrs	65		
22	Semi-Skill	Hrs	65		
23	Casual Labour	Hrs	40		
24	Travelling	Km	1300		
SUB-TOTAL					
Add VAT @ 15%					
TOTAL					

**PART C 2: CONTRACT: SCOPE OF WORK FOR INSTALLATION OF STANDBY GENERATOR****26. JOB CARD****JOB CARD**

Service Date: Reference no.

Place..... Institution.....Location

Service Description

Contractor:

WORK EXECUTED DESCRIPTION

Use addendum if additional space is required.

Artisan's Name:

Date of arrival:Time:

Completion date:Time:

Actual hours worked on site:

Signature of Artisan (Contractor):

CONTRACTOR

I hereby declare that the installation, maintenance and servicing as listed have been satisfactorily executed and that all records have been updated.

SIGNED BY THE CONTRACTOR

Date... Name..... Signature.....

CLIENT DEPARTMENT (To be completed by the SCM Electrical representative). I have personally checked that the contractor have executed the Job.

Remarks.....

Name: Rank: Date:

Signature: Telephone:

South African Police

STAMP

PLEASE