



TENDER DOCUMENT

FOR

BID NO: SCMU3-24/25-0460-HO

**SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO
CITY AND AMATHOLE DISTRICTS – HEALTH FACILITIES**

THREE VOLUME APPROACH:

**VOLUME 1 – TENDERING PROCEDURES
VOLUME 2 – RETURNABLE DOCUMENTS
VOLUME 3 – DRAFT CONTRACT**

**PREPARED FOR:
EASTERN CAPE DEPARTMENT
OF HEALTH
BUILDING, INDEPENDENCE
AVENUE
P.O. BOX X0038
BHISHO
6505**

**PREPARED BY:
MJT CONSULTING
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5242**

NAME OF BIDDER: _____

CRS NUMBER: _____

NOVEMBER 2024

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VOLUME 1: TENDERING PROCEDURES

T1.1: TENDER NOTICE AND INVITATION TO TENDER

T1.1: TENDER NOTICE AND INVITATION TO TENDER
THE Eastern Cape DEPARTMENT OF HEALTH INVITES BIDDERSFOR:

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Any reference to words “Bid” or Bidder” herein and/or in any other documentation shall be construed to have the same meaning as the words “Bidder” or “Tender”.

The attention of Bidders is drawn to the eligibility criteria in the table below. Bidders are required to familiarise themselves thoroughly with the conditions of Bidder as contained in the BidderData (T1.2) and the Standard Conditions of Bidder (T1.3) which form part of the Bidder document. Only Bidders that are responsive to responsiveness criteria contained in the table below are eligible to have their Bidders evaluated:

☒	Joint ventures are eligible to submit tenders provided that: They have a signed joint venture agreement
☒	Only Bidders who have access to a suitably qualified and experienced Electrical Maintenance manager who will be the single-point of accountability and responsibility for the management of the contract works as described in clause C.2.1.2 shall be eligible to have their Tenders evaluated. <i>Experience must be on maintenance of Medium Voltage facilities.</i>
☒	Only Bidders who have access to a suitably qualified and experienced contract supervisor as described in clause C.2.1.3 shall be eligible to have their Tenders evaluated. <i>Experience must be on maintenance of Medium Voltage facilities.</i>
☒	Bidders that are responsive to the criteria stated above shall be evaluated further in accordance with the conditions of Bidder as stipulated in the Tender Data (T1.2) and the Standard Conditions of Tender (as amended), which form part of this Tender document.

Preferences are offered to Bidders in accordance with the points systems as below:

☒ 80/20 Preference point scoring system

Preference:		Price:	
SPECIFIC GOALS Status Level:	20 Points	Price:	80 Points
Total must equal:	20 Points	Total must equal:	80 Points

AVAILABILITY OF BIDDER DOCUMENTS:

- ☒ Tender documents may be freely downloaded from Tender portal www.echealth.go.za
OR www.etenders.go.za
- ☒ A compulsory clarification meeting with the representatives of the Employer will take place as follows:

Date: 29th of November 2024

Venue: John Tremble Hall, Frere Hospital

Time: 11am

ENQUIRIES RELATED TO TENDER DOCUMENTS MAY BE ADDRESSED TO:

Procurement Contact:	Ms Thabisa Notshe	E-mail	thabisa.notshe@echealth.gov.za
Tel. No.	040 608 9641/9501		

DEPOSIT / RETURN OF TENDER DOCUMENTS:

The closing time and date for submission of Tender is 11:00 am on the 13th December 2024 whereTenders will be opened to the public. The following must be noted by all Bidders;

Telegraphic, telephonic, telex, facsimile (faxed), email and late Tenders will not beaccepted.
The requirements for sealing, addressing, delivery, opening and assessment of Tendersare stated in the Tender Data (T1.2)

All Bidders must be submitted on the official, hardcopy documents issued with the bidincluding any addenda issued to prospective Bidders by the Department.

Tender documents must be deposited in the Tender box at the address indicated below:

DEPOSITED IN THE TENDER BOX AT:

Department of Health
Global Life Centre,
SCM Unit
c/o Phalo Avenue and R63 (opposite Engen Garage)
BHISHO

COMPILED BY:

Section	Department	Date
Engineering and Technical Services	MJT Consulting	November 2024

T1.2: TENDER DATA

T1.2: TENDER DATA

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Clause number	
	The conditions of Tender are the Standard Conditions of Tender as contained in Annexure C on Board Notice 423 of 2019 in Government Gazette No. 42622 of 08 August 2019, Construction Industry Development Board (CIDB) Standard for Uniformity in Engineering and Construction Works Contracts. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of Bidders as an Annex to this Tender Data. 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 Supplier. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies. The following variations, amendments and additions to the Standard Conditions of Bidder as set out in the Tender Data below shall apply to this Bidder:
C.1.1	<i>Add the following:</i> The employer is the Eastern Cape Department of HealthGlobal Life Centre c/o R63 and Phalo Avenue Bhisho

C.1.2	<i>Add the following:</i> Tender documents issued by the Employer comprise of: <u>Volume 1: Tendering Procedures</u> T1.1 Tender Notice and Invitation to Bidder T1.2 Tender Data T1.3 Annex C: CIDB Standard Conditions of Tender <u>Volume 2: Returnable Documents</u> SBD1 Invitation Bid: Part A and B SBD4 Declaration of Interest SBD6.1 Preference Points Claim Form in Terms of the Preference Regulations 2022 T2.2r Compulsory Enterprise Questionnaire T2.1 List of Returnable Schedules/Documents C1.1a Final Summary Page C2.2: Preliminaries and General & Bills of Quantities T2.2a Resolution of Signatory T2.2b Resolution of Board of Directors to Enter into Consortium or Joint Venture (JV) Agreement T2.2c-1 Schedule of Proposed Subcontractors T2.2d Schedule of Proposed Plant and Equipment T2.2e Schedule of key personnel T2.2f Bank Rating T2.2n Record of Addenda to Bidder Documents T2.2y Proof of Registration with Centralized Supplier Database T2.2u CIDB grading certificate – Proof of registration T2.2v CIPC – company registration certificate T2.2x References
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T2.2z Valid Letter of Good Standing
T2.3 Returnable schedules or documents: Annexures related to evaluation

Annexure A: Method Statement
Annexure B1: Key personnel qualifications (Electrical Maintenance manager)
Annexure B2: Key personnel qualifications (Electrical Maintenance Supervisor)
Annexure B3: Key personnel qualifications (OHS Safety officer)
Annexure B4: Key personnel qualifications (Skilled maintenance staff)
Annexure B5: Proof of business address

Volume 3: The Draft Contract

Part C1: Agreement and Contract data

C1.1: Form of offer and Acceptance
C1.2: Contract Data
C1.3: Fixed Performance Guarantee
C1.4: CIDB adjudicator's agreement
C1.5: Certificate of receipt of contract

Part C2: Pricing Data

C2.1: Pricing Instructions
C2.2: Bills of Quantities

Part C3: Scope of Works

C3.1: Scope of Works
C3.1a: Standard Specification
C3.2: Health and Safety Specification
C3.3: Supplementary Technical Specifications

Part C4: Site Information

C4.1: Site Information as per Scope of Works

Part C5: Appendices

C5.1: Medium Voltage Equipment Six Monthly inspection
C5.2: Medium Voltage Equipment Annual Inspection
C5.3: Environmental Management Plan

C.1.4	<i>Add the following:</i> The employer's agent: MJT consulting
C1.6.1	<i>Add the following to the clause:</i> The Department reserves the right to not accept the tender from the tenderer with the highest number of points, or award any contract.
C1.6.3	<i>Add the following:</i> A two-stage system will not be followed.
C.2.1	<i>Add the following:</i> 1. Only those Tenderers who satisfy the following eligibility criteria are eligible to submit tenders: 1 Tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in ac Contractor grading designation equal to or higher thana 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 Class EB or EP, Grade 7or 6 PE or higher construction work, are eligible to have their tenders evaluated. Joint ventures are eligible to submit tenders provided that: Every member of the joint venture is registered with the CIDB; The lead partner has a Contractor grading designation in Class EB or EP, Grade 6 construction work; The combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal or higher than the Contractor grading designation determined in accordance with the sum tendered forClass EB or EP, Grade 7 or 6 PE or higher construction work or a value determined in accordance with Regulations 25 (1B) or 25 (7A) of the Construction Industry Development Regulations; and The joint venture is registered on Central Supplier Database or proof of application All members of the joint venture must submit copies of the returnable documentations or original where it is so stipulated for all members. In the case of a Partnership/Joint Venture/Consortium the tax clearance must be the Partnership/Joint Venture/Consortium or individual valid tax clearance certificates forall the members of the Partnership/Joint Venture/Consortium. In the case of a Partnership/Joint Venture/Consortium the CIPRO certificates must be submitted indicating percentage of ownership for specific goals points scoring, failing which the tenderer will score zero points. The partner of the JV must be registered with CIDB with a grading that is not lower than one level of the required grading.

C.2.1.2	<i>Add the following:</i> <i>Responsibilities for Electrical MV Maintenance manager shall be:</i> Prepare maintenance plans, works programming including cash flow projections for all the facilities under this contract Appointment and managing of competent personnel for the maintenance of equipment in different facilities Responding and ensure attendance to emergency calls from DOH Call Centre
C.2.1.3	<i>Add the following:</i> <i>Responsibilities for Electrical MV Maintenance Supervisor shall be:</i> <i>Responsible for the operation of process unit</i> <i>Maintenance, inspection and testing of all electrical MV equipment, this include protection systems and substation alarm equipment</i> <i>Issuing of necessary permits for work to be carried out within operations</i>
C.2.2	Add the following to the clause: Accept that the Employer will not compensate the Tenderer for any costs incurred in attending briefing session, negotiation meetings or any meeting or interviews in the office of the Employer or Employer's agent (if required).
C.2.7	For particulars regarding a pre-Tender site inspection meeting, see Tender Notice and Invitation to Bidder T1.1 "A compulsory briefing session will be held and no compensation will be paid for attendance at this meeting. Tenderers must be represented by a person who is suitably qualified and experience to comprehend the extent of the work involved and who is at the employ of the prospective tenderer. The tenderer's representative must sign the attendance register in the name of the tendering entity. Addenda will be issue to and tenders will be received only from those tendering entities appearing in the attendance register of the briefing session."
C.2.12	No alternative tenders are allowed.

C.2.13.2	<i>Replace sub-clause C.2.13.2 with the following;</i> Return all returnable documents to the employer after completing them in their entirety by writing in non-erasable ink
C.2.13.3	<i>Add the following:</i> Parts of each Bidder offer communicated on paper shall be submitted as an original, plus 0 (naught) copies.
C.2.13.4	<i>Add the following:</i> The Bidder shall be signed by a person duly authorized to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture, in the form of a joint venture agreement, in which it is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorized to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. Failure to provide the joint venture agreement, bound with the Bidder submission, on the date and time of the closing of the bid, shall render the Bidder non-responsive.
C.2.13.5	<i>Add the following:</i> The employer's address for delivery of Bidder offers and identification details to be shown on each Bidder offer package are: Location of Bidder box: Department of Health Physical address: Eastern Cape Department of Health Global Life Centre, SCM Unit/o Phalo Avenue and R63 Bhisho Identification details: Tender No. SCMU3-24/25-0460-HO Title of Bidder: SCHEDULE MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES Sealed Tender with the identification details on the envelope must be placed in the appropriate official Tender box at the abovementioned address
C.2.13.6	<i>Add the following:</i> A two-envelope procedure will not be followed.
C.2.13.9	Telephonic, telegraphic, telefax, facsimile or e-mailed tender offers will not be accepted.
C.2.13.10	<i>Add the following:</i> By signing the offer part of C1.1 Form of Offer and Acceptance the Bidder declares that all information provided in the Bidder submission is correct and free of misrepresentation.
C.2.15.1	<i>Add the following to C.2.15.1:</i> The closing time for submission of Bidder offers is as stated in the Tender Notice and Invitation to Bidder. Telephonic, telegraphic, telex, facsimile or e-mailed Bidder offers will not be accepted.
C.2.16.1	<i>Add the following to C.2.16.1:</i> The Bidder offer validity period is 12 weeks.
C.2.17	<i>Insert the following at the end of the last sentence of the note:</i> ".....elect to do so, provided that the competitive position of the preferred Bidder is not affected"

	A Bidder may be rejected as non-responsive if the Bidder fails to provide any clarification requested by the employer within the time for submission stated in the employer's written request for such clarification. The clarification of a Bidder offer includes the provision of the priced bills of quantities (Part C2.2: Bills of Quantities).
C.2.18	<i>Add the following:</i> The tenderer will be required to submit his fully priced Bills of Quantities (completed document inclusive of all parts) together with this tender.
C.3.4	<i>Add the following:</i> The opening of the tender offers will take place immediately after the closing time of tenders.

C.3.8	<i>Add the following:</i> Bidders will be considered non-responsive if, inter alia: 1. the Bidder has failed to attend the compulsory briefing meeting; 2. the Bid is submitted by Telegraphic, telephonic, telex, facsimile (faxed) or email media or if the Bid is submitted late. 3. the Bidder does not comply with the eligibility criteria listed in C2.1 above; 4. The resolution for signatory is not attached to the Bidder submission on a company letterhead. 5. the Bidder has failed to fully complete and sign SBD1, SBD4 & the Compulsory Enterprise Questionnaire. Failure to submit the required information shall be subjected to a request from SCM to the bidder to submit the required information within 7 days of the request. Failure to comply with such request will result in the bid being deemed non-responsive
C.3.11.1	<i>Add the following:</i> This is a two-stage evaluation process: Stage 1: Administrative compliance and Mandatory requirements (inclusive of eligibility criteria) Stage 2: Evaluation for price and specific goals The following procedure will be used to evaluate tender offers received: 1. Open and record tender offers received 2. Determine whether or not tender offers are complete. 3. Determine whether or not tender offers received are responsive, and reject non-responsive tenders. 4. Perform Technical Evaluation of Equipment as per technical Data Sheet. 5. A bid with Equipment proposed that does not conform to scope of work or specification will be found non responsive. 6. Score tender evaluation points for each price 7. Confirm that tenderers are eligible for the preferences claimed and, if so, score tender evaluation points for preferencing. 8. Calculate total tender evaluation points 9. Rank tender offers from the highest number of tender evaluation points to the lowest. 10. Perform a risk analysis on the tenderer having the highest ranking/number of points to ascertain if the submission presents an acceptable risk to the employer. 11. Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so. The Employer shall in the evaluation of tender offers take due account of the Tenderer's past performance in the execution of similar engineering works of comparable magnitude, and the degree to which possesses the necessary technical, financial and other resources to enable him to complete the Works successfully with the contract period. The tenderer shall be required to satisfy the Employer and the Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details in section T2.2z of contracts of a similar nature and magnitude which they have successfully executed in the past. The Employer is restricted in accordance with clause 7. (c)(iii) of the Construction Regulations, 2014, to only appoint a contractor to whom he is satisfied has the necessary competencies and resource to carry out the work safely. Submitting inferior and inadequate information relating to health and safety shall be regarded as justifiable and compelling reasons not to accept the tender offer of the tenderer scoring the highest number of tender evaluation points.

C.3.11.3	The procedure for the evaluation of responsive tenders is Method 1: Administrative, Mandatory & Price and Specific Goals
C.3.11.7	<i>Add the following:</i> The financial offer will be scored using Formula 2 (Option 1): $N_{FO} = (1 - (P - P_M) / P_M) \times W_1$ Where. N_{FO} = number of Bidder evaluation points awarded for financial offer W_1 = the maximum possible number of Bidder evaluation points Tender P_M = the comparative offer of the most favourable Bidder offer P = the comparative offer of the Bidder offer under consideration
C.3.11.8	Up to 100 minus W_1 (refer C.3.11.7 above) Bidder evaluation points will be awarded to Bidders according to their SPECIFIC GOALS status level, determined in accordance with section 9(1) of the Broad-Based Black Economic Empowerment Act (No 53 of 2003), and who have submitted original valid or valid, certified copies of SPECIFIC GOALS status verification certificates issued by either a verification agency accredited by the South African Accreditation System (SANAS) or a sworn affidavit in terms of the amended SPECIFIC GOALS codes. The points will be awarded as follows, based on the SPECIFIC GOALS status level of the Bidder:

	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)
	Historically Disadvantaged Individuals Ownership	20% (4)	
	Women Ownership	20% (4)	
	Youth Ownership	20% (4)	
	Disability Ownership	20% (4)	
	Military Veterans Ownership	10% (2)	
	Locality Ownership (Eastern Cape)	10% (2)	
	TOTAL	100% (20)	
	A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as a legal entity, provided that the entity submits their SPECIFIC GOALS status level certificate. A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as an unincorporated entity, provided that the entity submits their consolidated SPECIFIC GOALS scorecard as if they were a group		

C.3.11.10	<i>Add the following new sub-clause:</i> The Employer will perform a risk analysis in respect of the following: reasonableness of the financial offer reasonableness of unit rates and prices the Bidders ability to fulfil its obligations in terms of the tender document, that is, that the Bidder can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience, reputation, personnel to perform the contract, etc.
C.3.13.1	Bidder offers will only be accepted if: 1. the Bidder is registered and in good standing with the South African Revenue Service (SARS) or proof that he or she has made arrangement with SARS to meet his or her outstanding tax obligations. This will be verified by the Employer on the Centralized Bidder Database. Where the recommended bidder is not tax compliant, the bidder will be notified of the non-compliant status and be granted seven (7) working days to rectify their compliance status with the SARS. The bidder must thereafter provide the Department with proof of its tax compliance which must be verified via the CSD or eFiling. 2. the Bidder or any of its directors is not listed on the Register of Bidder Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; 3. the Bidder or any of its directors is not listed on the Database of Restricted Bidders kept by the National Treasury and updated from time to time; the Bidder has not: 1. abused the Employer's Supply Chain Management System; 2. The Bidder has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Bidder's ability to perform the contract in the best interests of the employer or potentially compromise the Bidder process.
C.3.17	<i>Add the following:</i> The number of paper copies of the signed contract to be provided by the Employer is one.

C.4	ADDITIONAL CONDITIONS OF TENDER The additional conditions of Tender are:
C.4.1	Invalid Tender Bidders shall be considered invalid and shall be endorsed and recorded as such in the Bidder opening record, by the responsible official who opened the Tender, in the following circumstances: 1. if the Bidder offer is not submitted on the Form of Offer and Acceptance bound into this Tender document (form C1.1, Part C1: Agreements and Contract Data); 2. if the Form of Offer and Acceptance has not been completed or has not been signed by the authorised representative of the Bidder 3. if the Form of Offer and Acceptance is signed, but the name of the Bidder is not stated or is indecipherable 4. if the Bidder offer is not completed in non-erasable ink;
C.4.2	Negotiations with preferred Bidders The Employer may negotiate the final terms of a contract with Bidders identified through a competitive Supplying process as preferred Bidders provided that such negotiation: does not allow any preferred Bidder a second or unfair opportunity; is not to the detriment of any other Bidder; and does not lead to a higher price than the Bidder as submitted. Minutes of any such negotiations shall be kept for record purposes
C.4.3	General supply chain management conditions applicable to Bidder In terms of its Supply Chain Management Policy the Employer may not consider a Bidder unless the provider who submitted the Bidder: has furnished the Employer with that provider's: 1. full name; 2. identification number or company or other registration number; and 3. tax reference number and VAT registration number, if any; has indicated whether: 1. the provider is in the service of the state, or has been in the service of the state in the previous twelve months; 2. the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months; or whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months. Irrespective of the procurement process followed, the Employer is prohibited from making an award to: 1. a person who is in the service of the state; 2. a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state; 3. an advisor or consultant contracted with the Employer; or 4. a person, advisor or corporate entity involved with the tender specification committee, or a director of such corporate entity. In this regard, Bidders shall complete Returnable Schedules: Compulsory Enterprise Questionnaire. Failure to complete this schedule will result in the Bidder not being considered further.

C.4.4	Combating abuse of the Supply Chain Management Policy In terms of the its Supply Chain Management Policy, the Employer may reject the Bidder of any Bidder if that Bidder or any of its directors has: 1. failed, during the last five years, to perform satisfactorily on a previous contract with the Employer or any other organ of state after written notice was given to that Bidder that performance was unsatisfactory; 2. abused the supply chain management system of the Employer or has committed any improper conduct in relation to this system; 3. been convicted of fraud or corruption during the past five years; 4. wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or 5. been listed with the Register of Bidder Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person or juristic entity prohibited from doing business with the public sector. In this regard, Bidders shall complete Part T2.2: Returnable Schedules: Certificate of Independent Bidder Determination .Failure to complete these schedules will result in the Bidder not being considered further.
C.4.6	Claims arising after submission of Bidder No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer after the submission of any Tender and the Bidder shall be deemed to have: read and fully understood the whole text of the Contract Data, Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract. visited the site of any proposed works. requested the Employer or his duly authorized agent to make clear the actual requirements of anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Bidder. received any Addenda to the Bidder documents which have been issued in accordance with the Employer's Supply Chain Management Policy. Before submission of any Bidder, the Bidder should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the Bidder must apply to the Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer in respect of errors in any Bidder due to the foregoing.
C.4.7	Imbalance in Bidder rates In the event of Bidder rates or lump sums being declared by the Employer to be unacceptable to it because they are either excessively low or high or not in proper balance with other rates or lump sums, the Bidder may be required to produce evidence and advance arguments in support of the Bidder rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the supplied rates or lump sums objected to, it may request the Bidder to amend these rates and lump sums along the lines indicated by it.

	The Bidder will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the Bidder offer as Supplied or, if applicable, the corrected total of prices in accordance with C.3.9.3. Should the Bidder fail to amend his tender in a manner acceptable to the Employer, the Employer may reject the Tender.
C.4.8	The Employer shall not formally issue Tender documents in electronic format as contemplated in C.2.13.2 and C.2.13.3 and shall only issue Bidder documents in hardcopy. An electronic version of the issued Tender documents may be made available to the Bidder, upon written request in terms of this clause, subject to the following: (a) Electronic copies of the contract document, or parts thereof, will only be provided to Bidders who have been issued with the Tender documents as contemplated in C.1.2 in hardcopy. The electronic version shall not be regarded as a substitute for the issued Tender documents. The Employer shall not accept tender submitted in electronic format. Bidders may not complete and submit a printed copy of the electronic version of the Tender document or part thereof. Only those Bidders that have been completed on the issued hard copy Tender document shall be considered. The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. The Employer further does not guarantee that the electronic version corresponds with the issued Tender documents in all respects. Bidders are alerted to the fact that electronic versions of the Tender documents may not reflect any notices or addenda that amend the Tender document. Any non-compliance with these provisions, including effecting any unauthorized alterations to the Bidder document as contemplated in C.2.11, shall render the Tender invalid. The Employer reserves the right to take any action against such Bidder allowed in law including, in circumstances where the Bidder had already been awarded, the right to cancel the contract. In requesting the electronic version of the Tender document or parts thereof, the Bidder is deemed to have read, understood and accepted all of the above conditions.

VOLUME 2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

T2.1: LIST OF RETURNABLE SCHEDULES/DOCUMENTS

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

T2.2: ADMINISTRATIVE AND MANDATORY RETURNABLE SCHEDULES REQUIRED FOR BIDDER EVALUATION PURPOSES

	Returnable Documents	Number of Pages Issued	Returnable Document
	ADMINISTRATIVE		
SBD1	Invitation to Bid: Part A and B	2	☐ YES ☐ No
SBD 4	Declaration of Interest	2	☐ YES ☐ No
SBD 6.1	Preference Points Claim Form in Terms of The Preferential Procurement Regulations 2022	4	☐ YES ☐ No
T2.2r	Compulsory Enterprise Questionnaire	3	☐ YES ☐ No
T2.2v	Company Registration Certificate (CIPC certificate)	1	☐ YES ☐ No
T2.2y	Proof of Registration with Centralized Supplier Database	1	☐ YES ☐ No
	MANDATORY DOCUMENTS		
C1.1a	Final Summary Page	1	☐ YES ☐ No
C2.2	Preliminary and General & Bill of Quantities	20	☐ YES ☐ No
T2.2a	Resolution for Signatory	1	☐ YES ☐ No
T2.2b	Resolution of Board of Directors to Enter into Consortium or Joint Venture (JV) Agreements (if applicable)	2	☐ YES ☐ No
T2.2c-1	Schedule of Proposed Subcontractors	1	☐ YES ☐ No
T2.2d	Schedule of Plant and Equipment	1	☐ YES ☐ No
T2.2e	Schedule of key personnel	1	☐ YES ☐ No
T2.2f	Bank Rating	1	☐ YES ☐ No
T2.2n	Record of Addenda to Bidder Documents	1	☐ YES ☐ No
T2.2z	Valid Letter of Good Standing (COIDA)	1	☐ YES ☐ No

T2.2: MANDATORY DOCUMENTS REQUIRED FOR BIDDER EVALUATION
DOCUMENTS CONTINUED

No.	Document Name	Number of pages issued	Returnable Document
	MANDATORY DOCUMENTS		
Annexure A	Method Statement	1	☐ Yes ☐ No
AnnexureA1	Summary Tasks	1	☐ Yes ☐ No
AnnexureA2	Programme with Timelines and Planned Resources	1	☐ Yes ☐ No
Annexure B	Company Experience & Contactable References	1	☐ Yes ☐ No
T2.2u	CIDB grading certificate-Proof of registration	1	☐ Yes ☐ No
T2.2x	Company Reference Forms	4	☐ Yes ☐ No

C1.1	Form of Offer and Acceptance	2	☐ Yes ☐ No
C1.2	Contract data	7	☐ Yes ☐ No
C1.3	Fixed performance guarantee	3	☐ Yes ☐ No

T2.2: DOCUMENTS THAT WILL BE INCOPORATED INTO THE CONTRACT

C1.1	Form of Offer and Acceptance	2	☐ Yes ☐ No
C1.2	Contract data	7	☐ Yes ☐ No
C1.3	Fixed performance guarantee	3	☐ Yes ☐ No
C2.1	Pricing Instruction	3	☐ Yes ☐ No
C2.2	Preliminary and General & Bill of Quantities	24	☐ Yes ☐ No
C3.1	Scope of work	12	☐ Yes ☐ No
C4.1	Site Information	1	☐ Yes ☐ No

T2.2: RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

T2.2a: RESOLUTION FOR SIGNATORY

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

MUST BE ON COMPANY LETTERHEAD

A: CERTIFICATE OF AUTHORITY FOR SIGNATORY

Signatory for companies shall confirm their authority hereto by attaching a duly signed and dated copy of the relevant resolution of the board of directors to this form. This must be on a company letterhead.

An example is given below:

“By resolution of the board of directors passed at a meeting held on _____

Mr. /Ms _____, whose signature appears below, has been duly authorised to

sign all documents in connection with the Bidder for Contract No. _____

and any Contract which may arise there from on behalf of (Block Capitals) _____

SIGNED ON BEHALF OF THE COMPANY: _____

IN HIS/HER CAPACITY AS: _____

DATE: _____

SIGNATURE OF SIGNATORY: _____

WITNESSES:

_____SIGNATURE: _____

_____SIGNATURE: _____

T2.2b: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

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

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

Held at _____ (place)

On _____ (date)

RESOLVED that:

The Enterprise submit a Bid /Bidder, in consortium/Joint Venture with the following Enterprises:

(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

to the Eastern Cape Department of Health in respect of the following project:

(Project description as per Bid /Bidder Document)

Bid Number: _____ (Bid Number as per Document)

*Mr./Mrs./Ms:

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

and who will sign as follows: _____

be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

The Enterprise accepts joint and several liabilities with the parties listed under item 1 for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.

The Enterprise chooses as its domicilium citandi et executandi for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

Physical address: _____

_____ Postal Code _____

Postal Address: _____

_____ Postal Code _____

Telephone number: _____

Fax number: _____

	NAME	CAPACITY	SIGNATURE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			

Note:

1. * Delete which is not applicable
2. NB. This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise
3. Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page

ENTERPRISE STAMP

T2.2c-1: SCHEDULE OF PROPOSED SUBCONTRACTORS

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

We notify you that it is our intention to employ the following subcontractors for work in this contract. If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.				
	Name and address of proposed Subcontractor	Nature and extent of work	Value of Work	Subcontractor CIDB grading
1.				
2.				
3.				

Signed Date

Name Position

Bidder

T2.2d: SCHEDULE OF PLANT AND EQUIPMENT

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

The following are the lists of major items of relevant equipment that I/we presently own or lease and will have available for this contract or will acquire or hire for this contract if my/our tender is accepted.

Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity etc.

Attach additional pages if more space is required

Details of major equipment that be hired, or acquired for this contract if my/our tender is acceptable.

Quantity	Description, size, capacity etc.

Attach additional pages if more space is required

Signed _____ Date _____

Name _____ Position _____

Bidder _____

T2.2e: SCHEDULE OF KEY PERSONNEL

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

The Bidder is referred to clause C.2.1.3 of the Tender Data and shall insert in the spaces provided below details of the key personnel required to be in the employment of the Bidder or a specialist consultant/firm, in order for the Bidder to be eligible to submit a Tender for this project. The Curriculum Vitae of the individual must be appended to this schedule.

Notwithstanding having appended the Curriculum Vitae of the key personnel to this schedule, the Bidder must **also** append to this schedule in terms of clause C.2.1.3, a statement for the individual identified, which indicates any field(s) of specialization and any recent experience that is relevant to this particular project (which may or may not have formed part of the individual's CV). Bidders should indicate what particular aspect of the project the specialization or experience is relevant to.

Name	Qualifications	No. of Years Specified Experience

Signed

Date

.....

.....

Name

Position

.....

.....

Bidder

.....

T2.2f: BANK RATING

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders must submit a bank rating from a recognized financial institution as required in clause C.2.1.4 of the Tender Data. The bank rating must be attached to this schedule. Failure to comply with the requirements of C.2.1.4 shall result in the Tender not being evaluated further.

Minimum of Grade C bank required

BANK RATING					
Bank Rating Certificate Annexure F as per returnable list		Bank rating of A: Undoubted for the amount of enquiry – Good to do business with	Annexure F as per returnable list Bank rating certificate issued by the bank.		
		Bank rating of B: Good for the amount of the enquiry – Amount is well within the capacity of ordinary business commitments	Annexure F as per returnable list Bank rating certificate issued by the bank.		
		Bank rating of C: Good for amount quoted if strictly in the way of business – Unlikely to commit themselves beyond their means	Annexure F as per returnable list Bank rating certificate issued by the bank.		

Signed

Date

Name

Position

Bidder

T2.2n: RECORD OF ADDENDA TO BIDDER DOCUMENTS

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

We confirm that the following communications received from the Employer before the submission of this Bidder offer, amending the Tender documents, have been taken into account in this Bidder offer:

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed..... Date

Name..... Position

Bidder

*This document must form part of the returnable schedules as it is referenced in the offer portion of the Form of Offer and Acceptance.

T2.2r: COMPULSORY ENTERPRISE QUESTIONNAIRE

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number:

Section 3: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

a member of any municipal council a member of any provincial legislature ☐ a member of the National Assembly or the National Council of Province a member of the board of directors of any municipal entity an official of any municipality or municipal entity	☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) ☐ a member of an accounting authority of any national or provincial public entity ☐ an employee of Parliament or a provincial legislature
---	--

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

a member of any municipal council an employee of any provincial department,
a member of any provincial national or provincial public entity or
legislature constitutional institution within the meaning of the
a member of the National Assembly Public Finance Management Act, 1999 (Act 1 of
or the National Council of Province 1999)
a member of the board of directors a member of an accounting authority of any
of any municipal entity national or provincial public entity
an official of any municipality or an employee of Parliament or a provincial
municipal entity legislature

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

*insert separate page if necessary

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:
authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Bidder Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
confirms that I / we are not associated, linked or involved with any other Tendering entities submitting Bidder offers and have no other relationship with any of the Bidders or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed..... Date

Name..... Position

Enterprise name

* The schedule should be used where Bidders are subject to the Local Government: Municipal Finance Management Act

T2.2u: CIDB grading certificate – Proof of registration

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidder to submit necessary CIDB grading certificate

T2.2v: CIPC – Company registration certificate

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidder to submit necessary company registration certificate

T2.2z: Valid Letter of Good Standing (COIDA)

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidder to submit valid and up to date Letter of Good Standing certificate issued by Department of Labour; COIDA relevant to their services

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)					
BID NUMBER:		CLOSING DATE:	13 December 2024	CLOSING TIME:	11:00 am
DESCRIPTION	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
Tender Box Department of HealthGlobal Life Centre SCM Unit c/o Phalo Avenue and R63 (opposite Engen Garage) Bhisho					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON		CONTACT PERSON			
TELEPHONE NUMBER		TELEPHONE NUMBER			
FACSIMILE NUMBER		FACSIMILE NUMBER			
E-MAIL ADDRESS		E-MAIL ADDRESS			
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 No:	MAAA
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED?		☐ Yes ☐ No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?				☐ YES ☐ NO	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?				☐ YES ☐ NO	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?				☐ YES ☐ NO	
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?				☐ YES ☐ NO	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?				☐ YES ☐ NO	
IF THE ANSWER IS “NO” TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.					

PART B TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:	
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4.	THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).
2. TAX COMPLIANCE REQUIREMENTS	
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS 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 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 PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7	NO BIDS 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 MEMBERS PERSONS IN THE SERVICE OF THE STATE."

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

SIGNATURE OF BIDDER:

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

DATE:

SBD 4: DECLARATION OF INTEREST

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

BIDDER'S DISCLOSURE PURPOSE OF THE FORM

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 and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder. Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Bidders, that person will automatically be disqualified from the bid process.

Bidder's declaration

Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise?

Employed by the state?

YES/NO

If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

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

2.2.1 If so, furnish particulars:

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

If so, furnish particulars:

.....

DECLARATION

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

I have read and I understand the contents of this disclosure;

I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.

In addition, there have been no consultations, communications, agreements or arrangements with any competitor

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.

Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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.

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.

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.

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 No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.
I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6
OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE
SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....

..... Signature

.....

Date

.....

..... Position

.....

Name of bidder

SBD 6.1

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

GENERAL CONDITIONS

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); and
the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

To be completed by the organ of state

(delete whichever is not applicable for this tender).

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

The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

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

Price; and

Specific Goals.

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

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.

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.

DEFINITIONS

“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;

“price” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

“rand value” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes

;
“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

“the Act” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

POINTS AWARDED FOR PRICE

THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20

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

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

FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20

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

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{max} = Price of highest acceptable tender

POINTS AWARDED FOR SPECIFIC GOALS

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:

In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

an invitation for tender for income-generating contracts, that either the 80/20 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

any other invitation for tender, that either the 80/20 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 80/20 preference point system is applicable, corresponding points must also be indicated as such.)

Note to tenderers: The tenderer must indicate how they claim points for each 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)
Historically Disadvantaged Individuals Ownership	20% (4)	
Women Ownership	20% (4)	
Youth Ownership	20% (4)	
Disability Ownership	20% (4)	
Military Veterans Ownership	10% (2)	
Locality Ownership (Eastern Cape)	10% (2)	
TOTAL	100% (20)	

Service providers must submit proof of its Specific Goals points claimed / status of contributor.

The Specific Goals supporting documents required to verify claimed points may in line with the specified requirements include:

Historically Disadvantaged Individuals Ownership: Proof of ownership (CIPRO certificate) with id no.

Women Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.

Youth Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.

Disability Ownership: Proof of ownership (CIPRO certificate) with valid medical documentary proof.

Military Veterans Ownership: Proof of ownership (CIPRO certificate) with valid proof of veteran status.

Ownership: Proof of business address (municipal account or valid lease agreement)

Updated CSD report

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

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]

I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, ⁴⁹ based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown andI acknowledge that:

- The information furnished is true and correct;
- The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 ofthis form;
- 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 theclaims are correct;
- If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contracthave not been fulfilled, the organ of state may, in addition to any other remedy it may have –
- disqualify the person from the tendering process;
- recover costs, losses or damages it has incurred or suffered as a result of that person'sconduct;
- 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;
- 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 alterampartem* (hear the other side) rule has been applied; and
- forward the matter for criminal prosecution, if deemed necessary.

SIGNATURE(S) OF BIDDER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

T2.2y: Proof of Registration with Centralized Supplier Database

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders must attach Full CSD report

T2.2x. References

Bidders are required to use reference forms below to get clients' rating on similar projects successfully completed by the bidder. **Minimum of three (3) reference forms to be completed and issued with the bid**

Reference No. 1

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES- BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Sir/Madam,

We are in the process of evaluating_____ for the above project.

They have listed you as a reference. Please evaluate the Bidders performance on the criterialisted below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions, please do not hesitate to contact us. **Experience on this reference form to be on MV Maintenance projects similar to tendered project.**

NAME OF EMPLOYER	NAME OFPROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

COMMENTS:

Project Manager/ Principal Agent:..... Tel. No: E-mail Address: Signature:..... Date:.....	Place Company Stamp
---	---

Reference No. 2

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Sir/Madam,

We are in the process of evaluating_____for the above project.

They have listed you as a reference. Please evaluate the Bidders performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions, please do not hesitate to contact us. **Experience on this reference form to be on MV Maintenance projects similar to tendered project.**

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

COMMENTS:

Project Manager/ Principal Agent:.....	Place Company Stamp
Tel. No:	
E-mail Address:	
Signature:..... Date:.....	

Reference No. 3

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Sir/Madam,

We are in the process of evaluating_____for the above project.

They have listed you as a reference. Please evaluate the Bidders performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions, please do not hesitate to contact us. **Experience on this reference form to be on MV Maintenance projects similar to tendered project.**

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. COMMENTS:

Project Manager/ Principal Agent:.....	Place Company Stamp
Tel. No:	
E-mail Address:	
Signature:..... Date:.....	

Reference No. 4

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Sir/Madam,

We are in the process of evaluating_____for the above project.

They have listed you as a reference. Please evaluate the Bidders performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions, please do not hesitate to contact us. **Experience on this reference form to be on MV Maintenance projects similar to tendered project.**

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. COMMENTS:

Project Manager/ Principal Agent:.....	Place Company Stamp
Tel. No:	
E-mail Address:	
Signature:..... Date:.....	

Annexure A: Method Statement

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders are required to submit a method statement.

Annexure A1: Summary Task

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders are required to submit a summary task per MV equipment type.

Annexure A2: Programme with Timelines and Resources

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders are required to submit a Programme with timelines and planned resources.

Annexure B1: Key Personnel Qualification (Electrical Maintenance Manager)

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders are required to submit proof of experience as an Electrical Maintenance manager.

Electrical Maintenance Manager	Education Qualification: B Eng./B-Tech in Electrical Engineering/ National Higher Diploma in Electrical Engineering/ Advanced National Diploma in Electrical Engineering Experience: Minimum 2 years in the management of Medium Voltage Equipment Maintenance OR	Attach certified copies of qualifications the individual's curriculum vitae (CV)
	Education Qualification: National Diploma/T3/N6 in Electrical Engineering Experience: Minimum 4 years in the management of Medium Voltage Equipment Maintenance	Attach certified copies of qualifications including the individual's curriculum vitae (CV)

Annexure B2: Key Personnel Qualification (Electrical Maintenance Supervisor)

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders are required to submit proof of Electrical Maintenance supervisor's experience.

Electrical Maintenance Supervisor	Education Qualification: National Diploma/T3/N5 in Electrical Engineering or higher Accreditation: Installation Electrician (Level 4) and High-Voltage Authorization for Distribution (ORHVS) Experience: Minimum 2 years in Medium Voltage Equipment Maintenance OR	Attach certified copies of qualifications and accreditations including the individual's curriculum vitae (CV)
	Education Qualification: National Diploma/N4 in Electrical Engineering or equivalent Accreditation: Installation Electrician (Level 4) and High-Voltage Authorization for Distribution (ORHVS) Experience: Minimum 5 years in Medium Voltage Equipment Maintenance	Attach certified copies of qualifications and accreditations including the individual's curriculum vitae (CV)

Annexure B3: Key Personnel Qualification (OHS Safety officer)

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders are required to submit proof of OHS safety officer's experience.

Annexure B4: Proof of Business address

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Bidders are required to submit proof of business address (municipal account or valid lease agreement not later than 3 months).

Annexure B5: Company Experience

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

Company Experience for evaluation purposes.

Bidders are required to:

Use the form below to list projects (**minimum of 3**) that the company has successfully completed in the field of MAINTENANCE OF MV EQUIPMENT; and

Provide a minimum of 3 award letters and corresponding completion certificates on projects completed in the field of MAINTENANCE OF MV EQUIPMENT.

NAME OF EMPLOYER AND CONTACT DETAILS	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

VOLUME 3: CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a Contract for the procurement of:

CONTRACT NUMBER:

**CONTRACT NAME: SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-
BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES**

The Tenderer, identified in the offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the tender 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) R (in figures)

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 terms of the Conditions of Contract identified in the Contract data.

For and on behalf of the Tenderer:

Name

Capacity

Signature

Date:

Name and address of tenderer:

.....
.....
.....

Witness Name

Witness Signature

Date:

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 C1: Agreements and Contract data (which includes this agreement) Part C2:

Pricing data

Part C3: Scope of work

Part C4: Site Information and 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 agreement. No amendments to or deviations from said documents are valid unless contained in this schedule, which must be duly signed by the authorised representative(s) of both parties.

The Tenderer shall, within two weeks after receiving a completed copy of this agreement including the schedule of deviation (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 insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract data at or just after, the date this Agreement comes into effect. 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 cannot accept the contents of this agreement, this agreement shall constitute a binding Contract between the parties.

For and on behalf of the Employer:

Name

Capacity

Signature Date:

Name and address of employer:

.....
.....
.....

Witness Name

Witness Signature Date:

SCHEDULE OF DEVIATIONS

Notes:

The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the conditions of tender.

A Tenderer's covering letter shall not be included in the final Contract document. Should any matter in such letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents, and which it is agreed by the parties becomes an obligation of the Contract, shall also be recorded here.

Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

A Tenderer's covering letter shall not be included in the final Contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, be the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Subject	
Details	
.....	Subject
.....	Details
.....	
.....	Subject
.....	Details
.....	
.....	Subject
.....	Details
.....	
.....	Subject
.....	Details
.....	

..... By the duly authorized representatives signing this schedule of deviations, 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 returnable schedules, as well as any confirmation, clarification or change 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

Part 1– Data provided by the Employer

Clause	Statement	Data
1. General		
	The conditions of contract are the core clauses and the clauses for main Option:	A Priced contract with price list
	dispute resolution Option and secondary Options	W1 Dispute resolution procedure
	X1	Price adjustment for inflation
	X13 Performance Bond	
	X17 Low service damages X18 Limitation of liability X19 Task Order	
	X20 Key Performance Indicators of the NEC3 Term Service Contract (April 2013)	
10.1	The Employer is (name):	Eastern Cape Department of
	Address	Department of Health Global Life Centre Corner Phalo Avenue and R63 (opposite Engen garage) Bhisho 5605
	Represented By:	Thabisa Notshe
	Tel No.	
	Fax No.	
10.1	The Service Manager is (name):	MJT consulting
		62 Bonza Bay Road Beacon Bay East London 5241
	Tel: 083 3521906 e-mail: lengoaf @ gmail.com	
	The Service Manager is (name):	MJT Consulting

11.2(2) The Affected Property is per Service Information	Various Health Facilities in the Eastern Cape Province as
---	---

The service is 11.2(13)	Scheduled and Re-Active Maintenance works
11.2(14) The following matters will be included in Risk register	N/A
11.2(15) The Service Information is in Works. Works Information and all documents and drawings to which it makes reference.	The Contract Part 1: Service Information - Scope of
12.2 The law of the contract is the law of	the Republic of South Africa
The language of this contract is	English
The period for reply is	7 days

2. The Contractor's responsibility (If the optional statement for this section is not used, no data will be required for this section)	
21.1 The Contractor submits a first Plan for	2 weeks of the Contract Date acceptance within

3. Time	
The starting date is	at the Site Handover Meeting Date.
The service period is	36 Months.

4. Testing and defects Manager.	Special testing may be requested by the Service
---------------------------------	---

5. Payment	
50.1 The assessment interval is	Monthly
51.1 The currency of this contract is the	South African Rand
51.2 The period with which payments are made is	30 Days after submission of a valid TAX Invoice to the Employer
51.4 The interest rate is	(i) zero percent above the publicly quoted prime rate of interest (calculated on a 365-day year) charged by from time to time by the South African Reserve Bank (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands

6. Compensation Events	(if the optional statement for this section is not used, no data will be required for this section)
These are additional compensation	N/A events

7. Use of Equipment Plant and Materials		No data is required for this section of the conditionsof contract.
8. Risks and Insurance		
80.1	These are additional Employer's risks	N/A
83.1	The Employer provides these insurances from the Insurance Table	N/A
83.1	The Employer provides these additional Insurances	N/A
83.1	The minimum amount of cover for insurance against loss and damage caused by the Contractor to the Employer's property is	R 5 000 000.00
83.1	The insurance against loss of or damage to the works, Plant and Materials is to include cover for Plant and Materials provided by the Employer to an amount of	R 5 000 000.00
83.1	The minimum amount of cover for insurance in respect of loss of or damage to property (except the Employer's property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) arising from or in connection with the Contractor's Providing the Service for any one event is:	R 5 000 000.00
83.1	The Minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the Contractor arising out of and in course of their employment in connection with this contract for any one event is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the Contractor's common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R 5 000 000.00
9. Termination		No data is required for this section of the conditions of contract.
10. Data for main Option Clauses		
A	Priced Contract with Price List	Option A4
20.5	The Contractor prepares forecasts of the final Weeks total of the Prices for the whole of the service at intervals of no longer than	
11. Data for Option W1		
W1.1	The Adjudicator is (Name)	The person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the party intending to refer a dispute to him. (See www.icesa.org.za)
	Address	
	Tel. No,	
	Fax No.	
	Email	

W1.2(3) The Adjudicator nominating body is: W1.4(2) The Tribunal is: W1.4(5) The Arbitration Procedure is The place where arbitration is to be held is The person or organization who will choose If the Parties cannot agree a body, choice or If the procedure does not state who selects an arbitrator, is	The Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering Arbitration The latest edition of Rules for the Conduct of Arbitrations published by the Association of Arbitrators(South Africa) or its successor body. South Africa The Chairman for the time being or his nominee as an arbitrator Association of Arbitrators (South Africa) or its successor																		
12. Data for Secondary Option Clauses																			
X1 Price Adjustment for Inflation X1.1 The base date for indices is Tender Closing Date The proportions used to calculate the Price Adjustment Factor are: Note: Requirements for CPA/Price inflation is that Prices must be Fixed and Firm for the First 12 months of the contract and only subject to escalation thereafter. A minimum of 10% of the contract price / prices is not adjustable throughout the life of the contract <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Proportion</th> <th style="width: 30%;">Linked to Index for</th> <th style="width: 50%;">Index prepared by (Source)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td>Non-Adjustable**</td><td> </td></tr> <tr><td>100%</td><td colspan="2"> </td></tr> </tbody> </table>		Proportion	Linked to Index for	Index prepared by (Source)											Non-Adjustable**		100%		
Proportion	Linked to Index for	Index prepared by (Source)																	
	Non-Adjustable**																		
100%																			
X13 Performance Bond X13.1 The Contractor gives the Employer a The Tenderer must provide a Performance Bond in the performance bond form of a Fixed Performance Guarantee by means of a Bank Guarantee, or from an Insurer approved by the Service Manager, in the amount of 2.5% of the Awarded Contract Value, once the Contract has been awarded to him. This Bond must be given to the Employer with in four (4) weeks of the Contract Date.																			
X17 Low Service Damages X17.1 The service level table is in As per Demerit Table in Contact Data – Annexure CD1																			
X18 Limitation of Liability X18.1 The Contractor's liability to the Employer for R5 000 000.00 indirect or consequential loss is limited to X18.2 For any one event, the Contractor's liability to R5 000 000.00 the Employer for loss of or damage to the Employer's property is limited to																			

X18.3	The Contractor's liability for Defects due to his design of an item of Equipment To	The greater of is limited the total of the Prices at the Contract Date And R2 500 000
X18.4	The Contractor's liability to the Employer for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	N/A
X18.5	The end of liability date is	12 Months after the end of the Service Period.
X19	Task Order The Contractor submits a Task Order programme to the Service Manager within	Authorization to commence with any Task will be done by Task Order. This Task Order will be issued to the Contractor by the Service Manager. Maintenance Turn-around times are stated in the Works Instructions under specification clause GM7.
X20	Key Performance Indicators	Key performance Indicators will be used to monitor Contractor performance on a monthly basis

- **Part Two – Data provided by the Contractor**

Clause	Statement	Data
10.1	The Contractor is (Name): Address: Tel No. Fax No.	
11.2(8)	The Direct Fee Percentage is _____ % The Subcontracted Fee Percentage Is _____ %	
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information for the Contractor's plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The Key Persons are: Name: Job: Responsibilities: Qualifications: Experience	
	Name: Job: Responsibilities: Qualifications: Experience	
	CV's and further key person's data are in _____	
A	Priced Contract with Price List	
11.2(12)	The price list is in	
11.2(19)	The tendered total of the Prices is	
X1	Price adjustment for inflation	

X1.1

Proportion	Linked to Index for	Index prepared by (Source)
	Non-Adjustable**	
100%		

Annexure CD1 – Demerit Table and Penalty Calculation System

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

ANNEXURE CD1: DEMERIT TABLE AND PENALTY CALCULATION SYSTEM

If the Contractor fails to remedy any sub-standard work within the time frame stipulated by the Service Manager, the conditions as per GM 3.1 will apply.

The contractor will incur demerit points for specific measurable poor performance incidents which can lead to the early termination of the Contract as described below.

DESCRIPTION	DEMERIT POINT
Failure to submit the Functional Condition Assessment Report by the due date	1 point/ week that the report is late
Exceeding the maximum allowable response and resolve time for a P1 Breakdown	3 points/ incident
Exceeding the maximum allowable response and resolve time for a P2 Breakdown	2 points/ incident
Exceeding the maximum allowable response and resolve time for a P3 or P4 Breakdown	1 point/ incident
Not meeting the Planned Maintenance Performance KPI	1 point/ incident
Not meeting the Rework Rate KPI	1 point/ incident
Not meeting the Contractor Contactability KPI	1 point/ incident

The demerit points will accumulate and trigger the following actions:

ACCUMULATED DEMERIT POINTS	ACTION
6	Service Manager to discuss Contractor's performance deviation and agree on improvement measures. If improvement measures are successful and the Contractor has been consistently meeting the required KPI targets for the following two months, the demerit points can be cancelled by the Service Manager.
12	Service Manager to issue notice that Contractor is in Breach of Contract and that Contract Can be terminated if the Contractor does not improve his performance in line with the agreed improvement measures.

15	Service Manager to Terminate Contract as per Clause 9 of the NEC3 Term Service Contract.
----	--

Poor performance by the Contractor due to late payments by the Employer will not incur demerit points.

Financial penalties, as per the requirements of Secondary Options Clause X17, will be applied on the effected payments at 1% penalty per demerit point by the Service Manager, in the month that the demerit points are allocated to the Contractor.

Annexure CD2 – Key Performance Indicator Listing

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

The following Key Performance Indicators (KPI's) will be applicable to this Contract and must be monthly updated and reported on by the Service Manager:

KPI Name	KPI Equation			Frequency	Target
Emergency Job Rate	=	$\frac{\text{Total Number of Emergency Jobs Done}}{\text{Total Number of Jobs Done}} \times 100\%$		Monthly	<10%
Planned Maintenance Performance	=	$\frac{\text{Total Number of Scheduled Planned Maintenance Jobs Completed}}{\text{Total Number of Planned Maintenance Jobs Scheduled}} \times 100\%$		Monthly	100%
Cost Estimation Accuracy	=	$\frac{\text{Total Actual Cost of Work}}{\text{Total Estimated Cost Of Work}} \times 100\%$		Monthly	100%
Response Performance	=	$\frac{\text{Number of Service Calls Completed within Targeted Response Time}}{\text{Total Number of Service Calls}} \times 100\%$		Monthly	100%
Rework Rate	=	$\frac{\text{Number of Jobs Requiring Rework}}{\text{Total Number of Jobs Done}} \times 100\%$		Monthly	0%
SHEQ	=	Number of SHEQ Incidents Involving the Contractor		Monthly	0
Contractor Contactability	=	Number of Times that Contractor was not Contactable by the Call Centre		Monthly	0

The Service Manager must also ensure that the following items are routinely inspected and reported on by the Site Representative for each Health Facility:

Compliance with general maintenance requirements as specified in the Service Information.

Manner in which preventative and corrective maintenance is carried out.

Manner in which the Maintenance Control Plan is implemented and updated.

Manner in which Task Orders received from the Service Manager is dealt with.

Manner in which records are kept as required by the Service Information as well as the Occupational Health and Safety Act, Act No 85 of 1993 as amended.

Quality of services carried out for the month prior to the inspection.

Note: The aim of the above inspection is to determine that all the requirements of the specification have been complied with. Should the Service Manager believe that one or more maintenance items referred to above, have been neglected or totally ignored by the Contractor he may decide to implement demerit points as penalty as per X17 for each type of non-compliance found during the inspection.



C 1.3: FIXED PERFORMANCE GUARANTEE

Project title:	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
Bid No:	SCMU3-24/25-0460-HO

With reference to the contract between _____
_____(hereinafter referred to as the
“**contractor**”) and the Eastern Cape Department of Health (hereinafter referred to as the “**employer**”). **Contract**
No......for the
..... (hereinafter referred to as the
“**Contract**”)
in the amount of R _____,
_____(in words), (hereinafter referred to as
the “**contract sum**”).
I/We, _____
in my/our capacity as _____and hereby
representing _____(hereinafter referred to as the “**guarantor**”) advise
that the **guarantor** holds at the **employer’s** disposal the sum of
R _____, (_____) being **2.5%** of the
contract sum (excluding VAT), for the due fulfilment of the contract.

The **guarantor** hereby renounces the benefits of the exceptions *non numeratae pecunia, non causa debiti; excussionis et divisionis*; and all other exceptions which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed, during the period when the claim is received by the **guarantor**, on receipt of a written demand from the **employer** to do so, and which demand the **employer** may make if the **employer** has a right of recovery against the **contractor** in terms of X13 of the contract.



Subject to the above, but without in any way detracting from the **employer's** rights to adopt any of the procedures provided for in the contract, the said demand can be made by the **employer**, at any stage prior to the expiry of this guarantee.

The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon the issue of the last final **payment certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.

The **employer** shall have the absolute right to arrange his affairs with the **contractor** in any manner which the **employer** deems fit and the **guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the foregoing, any compromise, extension of the **construction period**, indulgence, release or variation of the **contractor's** obligation shall not affect the validity of this guarantee.

This undertaking is neither negotiable nor transferable, and

must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 4 above, or
shall lapse on the date of the last **certificate of practical completion**; and
shall not be interpreted as extending the **guarantor's** liability to anything more than payment of the amount guaranteed.

SIGNED AT _____ ON THIS _____ DAY OF _____ 201_

AS WITNESS

1. _____

2. _____

By and on behalf of

(insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
(duly authorized thereto by resolution attached marked Annexure A)

DATE: _____

No alterations and/or additions of the wording of this form will be accepted.

The physical address of the guarantor must be clearly indicated and will be regarded as the guarantor's *domicilium citandi et executandi*, for all purposes arising from this guarantee.

This GUARANTEE must be returned to:

C1.4 CIDB ADJUDICATOR’S AGREEMENT

This agreement is made on the day of between:
..... (name of company / organisation) of
.....
..... (address) and.
..... (name of company / organisation) of
.....
..... (address) (the Parties) and.
..... (name) of
.....
..... (address)
(the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated
. and known as.
.....

and these disputes or differences shall be/have been* referred to adjudication in accordance with
the CIDB Adjudication Procedure, (hereinafter called "the Procedure") and the Adjudicator may be or
has been requested to act.

* Delete as necessary

IT IS NOW AGREED as follows:

The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the
Procedure.
The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses inaccordance with the
Procedure as set out in the Contract Data.
The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudicationand shall endeavour
to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other
Parties which consent shall not be unreasonably refused.
The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation
to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED	SIGNED by:	SIGNED by:
by:		
_____	_____	_____
Name:	Name:	Name:
Witness	Witness:	Witness:
Name: _____	Name _____	Name: _____
Address: _____	Address: _____	Address: _____

Date: _____ Date: _____ Date: _____

Contract Data

1	The Adjudicator shall be paid at the hourly rate of R in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: Printing, reproduction and purchase of documents, drawings, maps, records and photographs. Telegrams, telex, faxes, and telephone calls. Postage and similar delivery charges. Travelling, hotel expenses and other similar disbursements. Room charges. Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R This fee shall become payable in equal amounts by each Party within days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not* currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due 7 days after receipt of invoice, thereafter interest shall be payable. The interest shall be prime rate as determined by Reserve Bank plus additional percentage as determined by Adjudicator for every day the amount remains outstanding.

*

(Delete as necessary)

C1.5 CONFIRMATION OF RECEIPT OF CONTRACT (PRO FORMA)
--

The Tenderer, (now Contractor), identified in the Offer part of this Agreement, hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) on:

The (day) of (month) (year)

At(place)

It is hereby agreed that the official commencement date of the Contract will be:

The (day) of (month) (year)

For and on behalf of the Contractor:

Name

Capacity

Signature Date:

Witness Name

Witness Signature Date:.....

PART C2: PRICING DATA

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

C2.1 Pricing Instructions

GENERAL NOTES

Documents

The Schedule of Quantities form part of the Document and must be read in conjunction with the other parts forming the Document in order to gain the full meanings of the descriptions of the work to be done and materials and equipment to be used.

Alterations

No alterations, erasure or addition is to be made in the text of the Schedule of Quantities. Should any alteration, erasure or addition be made, it will not be recognised and the original wording of the Schedule of Quantities will be adhered to.

Issue of Schedule of Quantities in Electronic Format

The Employer will upon request make the Schedule of Quantities available to Tenderers in electronic (Microsoft ExcelWorkbook) format, upon request.

If utilised for tender submission, the Tenderer will be responsible for ensuring the correctness of all calculations. The Employer cannot be held responsible for any arithmetic inaccuracies in the electronic Schedule of Quantities.

Pages

Before submitting his Tender, the Tenderer must check to ensure all pages have been included and are distinct. Should any obvious errors be found the Engineer is to be notified immediately to have them corrected as no liability whatsoever will be admitted by the Engineer in respect of errors in the Tender due to the foregoing.

Responsibility

The responsibility for the accuracy of the quantities written into the Schedule of Quantities remains with the person who prepared the Schedule of Quantities. The Tenderer shall be relieved of the responsibility of measuring quantities at the Tender stage, and the Tender Price submitted shall be in respect of the quantities set out in the Schedule of Quantities.

The Tenderer will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the Schedule of Quantities and shall make allowances therefore within the rates tendered.

Tenderers shall make due allowance in their rates for any item of incidental or contingent work, labour and materials not contained in the Schedule of Quantities, but deemed necessary for the successful completion of the Works.

Offered rates in the Schedule of Quantities

The rates in the Schedule of Quantities shall be final and no further adjustment will be made.

Currency

All the offered rates in the Schedule of Quantities shall be in South African Rands (R). Any items purchased overseas must be converted to local currency with all exchange rates and export charges.

Unit Rates

Unless a separate rate for the supply and the installation of any item is specifically called for, the supply and installation costs of any items shall be fully included in the unit price.

The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and

waste, patterns, models and templates plant, temporary works, return of water establishment charges, profit and all other obligations arising out of the Conditions of Contract.

Variations

Variations in the scope and extent of the work included in the Schedule of Quantities shall be allowed in order to meet the Employer's requirements and shall be measured and costed at the rates entered in the Schedule of Quantities, where appropriate, forming an addition to or deduction from the total of the Schedule of Quantities. Any items or variations for which rates have not been added in the Schedule of Quantities shall be agreed and priced as non-scheduled items in accordance with the provisions of the contract.

The rules governing the extent and costing of the variations shall be those provided for in the Conditions of Contract and Variations to Sub-contract.

Variations to the planning before the work has been executed shall be priced as above. Alterations to work already executed cannot necessarily be priced as above and must be reviewed on its merits.

The appropriate portions of the Preliminary & General Costs are to be adjusted proportionately to the nett additions or omissions of the variations to the contract

Preliminary and General

Tenderers are to note that no allowances have been made in the Schedules of Quantities for the pricing of "Preliminary & General" items.

Tenderers shall therefore, include the "Preliminary & General" component of their Tender Price in their tendered rates for the respective items of equipment / Work.

Provisional Sums

All Provisional Sums shall be expended only as directed by the Client and Engineer and any balance remaining shall be deducted from the amount of the Sub-contract sum. No work for which Provisional Sums are provided shall be commenced without written instructions from the Engineer.

All Provisional Sums may be utilised in full or in part. These Provisional Sums may be deleted in full or in part if not required.

Contingency Sums

All Contingency Sums shall be expended only as directed by the Client and Engineer. No work for which Contingency Sums are provided shall be commenced without written instructions from the Engineer.

All Contingency Sums may be utilised in full or in part. These Contingency Sums may be deleted in full or in part if not required.

Dayworks

The rates included for daywork shall not form part of the Tender Price, but Tenderers shall note that this item must be regarded as provisional and will only be payable to the Sub-contractor if and when a written order to this effect has been issued.

Value Added Tax

This Schedule of Quantities shall be priced net, excluding VAT.

VAT shall only be added at the Summary at the end of the Schedule of Quantities for the Principal Contract.

Adjustment

The Employer reserves the right to adjust arithmetical errors in the extension of rates and totals in the Tender, and the Tenderer will be informed of the effect of any corrections on his Tender Sum prior to the award of the Contract. In no case will tendered rates be adjusted when correcting such errors.

In the event of there being tendered rates or prices which are declared by the Employer to be unacceptable to him, because they are either excessively low or high or not in proper balance with other rates, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or prices objected to. If after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or prices objected to, he may request the Tenderer to amend these rates

and prices along the lines indicated by him.

The Tenderer may or may not thereupon alter and amend the rates and prices objected to and such other related prices as are agreed to by the Employer. Should the Tenderer fail to amend his Tender in a manner acceptable to the Employer, or at all, it may prejudice his Tender.

In the case of Tenders with Schedule of Quantities, the total corrected Tender Price in the Tender Form shall constitute the Sub-Contract Sum. Tenderers are advised to check their extensions and additions. In the case of a Lump Sum Tender, the original uncorrected Tender Price shall be considered. The Engineer shall negotiate adjustments to the rates tendered in order to correct the arithmetical extension or addition, whilst the Tender Price as submitted, remains unaltered.

In either case, the Tenderer shall be notified of any arithmetical error in his Tender, and shall be given the opportunity to withdraw the Tender at this stage.

Quantification

The successful Tenderer and the Employer or his Agent may agree that the total of any Schedule, including any variations by way of additions thereto or deductions there from, represents a fair and accurate quantification of the items set out in the Schedule of Quantities and the parties may agree final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.

Ordering

The quantities in this Schedule of Quantities shall not be used for ordering materials. The onus is on the successful Tenderer to order the correct quantities of materials as per the drawings.

Payment

The measurement and payment of Work done shall be made in accordance with the unit price rates, and rates of pay listed in the Schedule of Quantities. No payment will be made for any item of associated work not specifically detailed in the Schedule of Quantities.

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

C2.2 Schedules of Quantities

THE SCHEDULE OF QUANTITIES IS TO BE INSERTED AFTER THIS TITLE PAGE

SCHEDULE NUMBER	DESCRIPTION		TENDER AMOUNT	
1A-1	BCCM	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK	R	-
1A-2	BCCM	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)	R	-
1A-3	BCCM	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)	R	-
1A-4	BCCM	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK	R	777,000.00
1B-1	AMATHOLE	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK	R	-
1B-2	AMATHOLE	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK	R	-
1B-3	AMATHOLE	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)	R	-
1B-4	AMATHOLE	FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK	R	777,000.00
2A-1	BCCM	FUNCTIONAL REPAIR SCHEDULE	R	-
2A-2	BCCM	FUNCTIONAL REPAIR SCHEDULE (continued)	R	-
2A-3	BCCM	FUNCTIONAL REPAIR SCHEDULE (continued)	R	-
2A-4	BCCM	FUNCTIONAL REPAIR SCHEDULE (continued)	R	147,500.00
2B-1	AMATHOLE	FUNCTIONAL REPAIR SCHEDULE	R	-
2B-2	AMATHOLE	FUNCTIONAL REPAIR SCHEDULE (continued)	R	-
2B-3	AMATHOLE	FUNCTIONAL REPAIR SCHEDULE (continued)	R	-
2B-4	AMATHOLE	FUNCTIONAL REPAIR SCHEDULE (continued)	R	147,500.00
3A	BCCM	MAINTENANCE SERVICE SCHEDULE: BUFFALO CITY METROPOLITAN MUNICIPALITY	R	-
3B	AMATHOLE	MAINTENANCE SERVICE SCHEDULE: AMATOLE DISTRICT	R	-
SCHEDULE 4	BCCM	TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION OF THE WORKS	R	4,000,000.00
SUBTOTAL AMOUNT OF WORKS (EXCL VAT)			R	
ALLOWANCE FOR VAT AT 15.0%			R	
TOTAL AMOUNT OF WORKS (INCL VAT) - ENTER THIS AMOUNT TO FORM OF OFFER			R	

SCHEDULE 1A-1: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1A-1	GM 2.5 & C3.1a (Section 7)	VERIFICATION OF ASSETS ON SITE: Verify assets for each Health Facility Vs Asset Register (C3.1 - Annexure A) , and compile plant layout line drawings including MV Schematic drawing showing connection between each substation or mini-substation as per GM 2.5 (1) and (2).				
	GM 2.5 & 3.2	VERIFICATION OF SPARE PART INVENTORY ON SITE: Find and verify all spares for the asset type that is currently available on site. Where spare parts are not available recommend required spare parts needed per asset type				
1A-1.1		Bhisho Hospital	Item			
1A-1.1.1		800kVA Transformer	Item	1		R -
1A-1.1.2		500kVA Transformer	Item	1		R -
1A-1.1.3		315kVA Transformer	Item	2		R -
1A-1.1.4		315kVA Mini-Substation	Item	1		R -
1A-1.1.5		Ring Main Unit (RMU)	Item	5		R -
1A-1.1.6		MV Switchgear Room	Item	1		R -
1A-1.2		Nkqubela Hospital				
1A-1.2.1		500kVA Transformer	Item	1		R -
1A-1.2.2		Ring Main Unit (RMU)	Item	1		R -
1A-1.3		Grey Hospital				
1A-1.3.1		315kVA Transformer	Item	1		R -
1A-1.3.2		500kVA Transformer	Item	1		R -
1A-1.3.3		300kVA Mini-Substation	Item	1		R -
1A-1.3.4		Ring Main Unit (RMU)	Item	4		R -
1A-1.3.5		MV Switchgear Room	Item	2		R -
1A-1.4		Frere Hospital				
1A-1.4.1		300kVA Transformer	Item	3		R -
1A-1.4.2		315kVA Transformer	Item	2		R -
1A-1.4.3		500kVA Transformer	Item	1		R -
1A-1.4.4		630kVA Transformer	Item	1		R -
1A-1.4.5		500kVA Mini-Substation	Item	1		R -
1A-1.4.6		Ring Main Unit (RMU)	Item	5		R -
1A-1.4.7		Battery Tripping Unit (BTU)	Item	3		R -
1A-1.4.8		6-Way MV Feeder Bay (630A)	Item	1		R -
1A-1.5		Cecilia Makhiwane Hospital				
1A-1.5.1		Unknown Transformer	Item	3		R -
1A-1.5.2		100kVA Transformer	Item	1		R -
1A-1.5.3		600kVA Transformer	Item	2		R -
1A-1.5.4		2500kVA Transformer	Item	2		R -
1A-1.5.5		400kVA Mini-Substation	Item	2		R -
1A-1.5.6		500kVA Mini-Substation	Item	3		R -
1A-1.5.7		Ring Main Unit (RMU)	Item	5		R -
1A-1.5.8		1250kVA Step-Up Transformer	Item	2		R -
1A-1.5.9		Battery Tripping Unit (BTU)	Item	2		R -
1A-1.5.10		MV Switchgear Room	Item	2		R -
						2
Sub-Total						R -

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1A-1	GM 2.5	VERIFICATION OF ASSETS ON SITE : Verify assets for each Health Facility vs Asset Register (C4.1), and compile plant layout line drawings including MV Schematic drawing showing connection between each substation or mini-substation as per GM 2.5 (1) and (2).				
	GM 2.5 & 3.2	VERIFICATION OF SPARE PART INVENTORY ON SITE: Find and verify all spares for the asset type that is currently available on site. Where spare parts are not available recommend required spare parts needed per asset type				
1A-1.6		Duncan Village CHC				
1A.1.6.1		300kVA Transformer	Item	1		R -
1A.1.6.2		Ring Main Unit (RMU)	Item	4		R -
1A.1.6.3		MV Switchgear Room	Item	1		R -
1A-1.7		Empilweni Gompo CHC				
1A-1.7.1		200kVA Transformer	Item	1		R -
1A-1.7.2		Ring Main Unit (RMU)	Item	1		R -
TOTAL CARRIED FORWARD TO SUMMARY						R -

SCHEDULE 1A-2: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1A-2	GM 2.7	COMPILING OF OPERATING AND MAINTENANCE MANUALS: Compile three sets of O&M Manuals per site per asset type and asset model as per information from the Asset Register (C3.1 - Annexure A)				
1A-2.1		Bhisho Hospital	Item			
1A-2.1.1		800kVA Transformer	Item	1		R -
1A-2.1.2		500kVA Transformer	Item	1		R -
1A-2.1.3		315kVA Transformer	Item	2		R -
1A-2.1.4		315kVA Mini-Substation	Item	1		R -
1A-2.1.5		Ring Main Unit (RMU)	Item	5		R -
1A-2.1.6		MV Switchgear Room	Item	1		R -
1A-2.2		Nkqubela Hospital				R -
1A-2.2.1		500kVA Transformer	Item	1		R -
1A-2.2.2		Ring Main Unit (RMU)	Item	1		R -
1A-2.3		Grey Hospital				R -
1A-2.3.1		315kVA Transformer	Item	1		R -
1A-2.3.2		500kVA Transformer	Item	1		R -
1A-2.3.3		300kVA Mini-Substation	Item	1		R -
1A-2.3.4		Ring Main Unit (RMU)	Item	4		R -
1A-2.3.5		MV Switchgear Room	Item	2		R -
1A-2.4		Frere Hospital				
1A-2.4.1		300kVA Transformer	Item	3		R -
1A-2.4.2		315kVA Transformer	Item	2		R -
1A-2.4.3		500kVA Transformer	Item	1		R -
1A-2.4.4		630kVA Transformer	Item	1		R -
1A-2.4.5		500kVA Mini-Substation	Item	1		R -
1A-2.4.6		Ring Main Unit (RMU)	Item	5		R -
1A-2.4.7		Battery Tripping Unit (BTU)	Item	3		R -
1A-2.4.8		6-Way MV Feeder Bay (630A)	Item	1		R -
1A-2.5		Cecilia Makhiwane Hospital				
1A-2.5.1		Unknown Transformer	Item	3		R -
1A-2.5.2		100kVA Transformer	Item	1		R -
1A-2.5.3		600kVA Transformer	Item	2		R -
1A-2.5.4		2500kVA Transformer	Item	2		R -
1A-2.5.5		400kVA Mini-Substation	Item	2		R -
1A-2.5.6		500kVA Mini-Substation	Item	3		R -
1A-2.5.7		Ring Main Unit (RMU)	Item	5		R -
1A-2.5.8		1250kVA Step-Up Transformer	Item	2		R -
1A-2.5.9		Battery Tripping Unit (BTU)	Item	2		R -
1A-2.5.10		MV Switchgear Room	Item	2		R -
		Sub-Total				R -

[illegible]

SCHEDULE 1A-3: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1A-3	SS 8 & 9	OPERATOR AND DEPARTMENT MAINTENANCE STAFF TRAINING : Provide Operator and Maintainer training for each Health Facility as per SS8 and SS9				
1A-3.1		Bhisho Hospital	Hrs	40		R
1A-3.2		Nkqubela Hospital	Hrs	10		R
1A-3.3		Grey Hospital	Hrs	40		R
1A-3.4		Frere Hospital	Hrs	40		R
1A-3.5		Cecilia Makhiwane Hospital	Hrs	40		R
1A-3.6		Duncan Village CHC	Hrs	10		R
1A-3.7		Empilweni Gompo CHC	Hrs	10		R
						R
1A-3.8	GM 2.15	ENVIRONMENTAL MANAGEMENT PLAN : The Contractor must compile a basic Environmental plan specific to the type of work that he will be performing at the Health Facilities as per C3.3	Month	36		R
1A-3.9	GM 2.15	OCCUPATIONAL HEALTH AND SAFETY ACT COMPLIANCE COST : The Contractor must comply to the project Health and Safety Specification specific to the type of work that he will be performing on site as per C3.2	Month	36		R
1A-3.10	Clause 83.1	INSURANCE : LIMITATION OF LIABILITY (Amounts applicable for whole Contract)				R
1A-3.10.1		The minimum amount of cover for insurance against loss and damage caused by the Contractor to the Employer's property liability limit of R5 000 000 to cover requirements of Clause 83.1 in Contract Data	Month	36		R
1A-3.10.2		The insurance against loss of or damage to the works, Plant and Materials is to include cover for Plant and Materials provided by the Employer to a Minimum liability limit of R5 000 000 to cover requirements of Clause 83.1 in Contract Data	Month	36		R
1A-3.10.3		The minimum amount of cover for insurance in respect of loss of or damage to property and liability for bodily injury to or death of a person to a Minimum liability limit of R5 000 000 t o cover requirements of Clause 83.1 in Contract Data	Month	36		R
1A-3.11	X13	PERFORMANCE BOND (Amounts applicable for whole Contract)				R
1A-3.11.1		Provision for a Performance bond of not less than 2,5% of the Tender Value	Month	36		R
TOTAL CARRIED FORWARD TO SUMMARY						R

SCHEDULE 1A-4: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

[illegible]

SCHEDULE 1B-1: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1B-1	GM 2.5 & C3.1a (Section 7)	VERIFICATION OF ASSETS ON SITE: Verify assets for each Health Facility Vs Asset Register (C3.1 - Annexure A) , and compile plant layout line drawings including MV Schematic drawing showing connection between each substation or mini-substation as per GM 2.5 (1) and (2).				
	GM 2.5 & 3.2	VERIFICATION OF SPARE PART INVENTORY ON SITE: Find and verify all spares for the asset type that is currently available on site. Where spare parts are not available recommend required spare parts needed per asset type				
1B-1.1		Cathcart Hospital				
1B-1.1.1		200kVA Mini-Substation	Item	1		
1B-1.2		SS Gida Hospital				
1B-1.2.1		500kVA Transformer	Item	1		
1B-1.2.2		Ring Main Unit (RMU)	Item	1		
1B-1.2.3		MV Switchgear Room	Item	1		
1B-1.3		Victoria Hospital				
1B-1.3.1		100kVA Mini-Substation	Item	1		
1B-1.3.2		200kVA Mini-Substation	Item	5		
1B-1.3.3		315kVA Mini-Substation	Item	1		
1B-1.3.4		Ring Main Unit (RMU)	Item	2		
1B-1.3.5		MV Feeder Bay (630A)	Item	2		
1B-1.3.6		MV Switchgear Room	Item	1		
1B-1.4		Willowvale CHC				
1B-1.4.1		200kVA Transformer	Item	1		
1B-1.4.2		MV Switchgear Room	Item	1		
1B-1.5		Winterburg Hospital				
1B-1.5.1		200kVA Transformer	Item	1		
1B-1.5.2		MV Switchgear Room	Item	1		
1B-1.6		Tower Hospital				
1B-1.6.1		200kVA Mini-Substation	Item	1		
1B-1.6.2		315kVA Mini-Substation	Item	3		
1B-1.6.3		400kVA Mini-Substation	Item	1		
1B-1.6.4		Ring Main Unit (RMU)	Item	5		
1B-1.7		Fort Beaufort Hospital				
1B-1.7.1		315kVA Mini-Substation	Item	1		
1B-1.7.2		Ring Main Unit (RMU)	Item	1		
1B-1.8		Bedford Hospital				
1B-1.8.1		315kVA Mini-Substation	Item	1		
1B-1.9		Adelaide Hospital				
1B-1.9.1		300kVA Transformer	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE 1B-2: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1A-2	GM 2.7	COMPILING OF OPERATING AND MAINTENANCE MANUALS: Compile three sets of O&M Manuals per site per asset type and asset model as per information from the Asset Register (C3.1 - Annexure A)				
1B-2.1		Cathcart Hospital				
1B-2.1.1		200kVA Mini-Substation	Item	1		
1B-2.2		SS Gida Hospital				
1B-2.2.1		500kVA Transformer	Item	1		
1B-2.2.2		Ring Main Unit (RMU)	Item	1		
1B-2.2.3		MV Switchgear Room	Item	1		
1B-2.3		Victoria Hospital				
1B-2.3.1		100kVA Mini-Substation	Item	1		
1B-2.3.2		200kVA Mini-Substation	Item	5		
1B-2.3.3		315kVA Mini-Substation	Item	1		
1B-2.3.4		Ring Main Unit (RMU)	Item	2		
1B-2.3.5		MV Feeder Bay (630A)	Item	2		
1B-2.3.6		MV Switchgear Room	Item	1		
1B-2.4		Willowvale CHC				
1B-2.4.1		200kVA Transformer	Item	1		
1B-2.4.2		MV Switchgear Room	Item	1		
1B-2.5		Winterburg Hospital				
1B-2.5.1		200kVA Transformer	Item	1		
1B-2.5.2		MV Switchgear Room	Item	1		
1B-2.6		Tower Hospital				
1B-2.6.1		200kVA Mini-Substation	Item	1		
1B-2.6.2		315kVA Mini-Substation	Item	3		
1B-2.6.3		400kVA Mini-Substation	Item	1		
1B-2.6.4		Ring Main Unit (RMU)	Item	5		
1B-2.7		Fort Beaufort Hospital				
1B-2.7.1		315kVA Mini-Substation	Item	1		
1B-2.7.2		Ring Main Unit (RMU)	Item	1		
1B-2.8		Bedford Hospital				
1B-2.8.1		315kVA Mini-Substation	Item	1		
1B-2.9		Adelaide Hospital				
1B-2.9.1		300kVA Transformer	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE 1B-3: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1B-3	SS 8 & 9	OPERATOR AND DEPARTMENT MAINTENANCE STAFF TRAINING: Provide Operator and Maintainer training for each Health Facility as per SS8 and SS9				
1B-3.1		Cathcart Hospital	Hrs	10		R -
1B-3.2		SS Gida Hospital	Hrs	25		R -
1B-3.3		Victoria Hospital	Hrs	25		R -
1B-3.4		Willowvale CHC	Hrs	10		R -
1B-3.5		Winterburg Hospital	Hrs	10		R -
1B-3.6		Tower Hospital	Hrs	20		R -
1B-3.7		Fort Beaufort Hospital	Hrs	10		R -
1B-3.8		Bedford Hospital	Hrs	10		R -
1B-3.9		Adelaide Hospital	Hrs	10		R -
1B-3.10	GM 2.15	ENVIRONMENTAL MANAGEMENT PLAN : The Contractor must compile a basic Environmental plan specific to the type of work that he will be performing at the Health Facilities as per C3.3	Item	1		R -
1B-3.11	GM 2.15	OCCUPATIONAL HEALTH AND SAFETY ACT COMPLIANCE COST: The Contractor must comply to the project Health and Safety Specification specific to the type of work that he will be performing on site as per C3.2	Month	36		R -
1B-3.12	Clause 83.1	INSURANCE : LIMITATION OF LIABILITY (Amounts applicable for whole Contract)				
1B-3.12.1		The minimum amount of cover for insurance against loss and damage caused by the Contractor to the Employer's property liability limit of R5 000 000 to cover requirements of Clause 83.1 in Contract Data	Month	36		R -
1B-3.12.2		The insurance against loss of or damage to the works, Plant and Materials is to include cover for Plant and Materials provided by the Employer to a Minimum liability limit of R5 000 000 to cover requirements of Clause 83.1 in Contract Data	Month	36		R -
1B-3.12.3		The minimum amount of cover for insurance in respect of loss of or damage to property and liability for bodily injury to or death of a person to a Minimum liability limit of R5 000 000 to cover requirements of Clause 83.1 in Contract Data	Month	36		R -
1B-3.13	X13	PERFORMANCE BOND (Amounts applicable for whole Contract)				
1B-3.13.1		Provision for a Performance bond of not less than 2,5% of the Tender Value	Month	36		R -
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE 1B-4: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

[illegible]

SCHEDULE 2A-1: FUNCTIONAL REPAIR SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2A-1	GM 2.5	FUNCTIONAL CONDITION ASSESSMENT : Perform Functional Condition Assessment (Inspection and Testing) on all listed assets at all Health Facilities included in the Tender				
2A-1.1		Bhisho Hospital	Item			
2A-1.1.1		800kVA Transformer	Item	1		R -
2A-1.1.2		500kVA Transformer	Item	1		R -
2A-1.1.3		315kVA Transformer	Item	2		R -
2A-1.1.4		315kVA Mini-Substation	Item	1		R -
2A-1.1.5		Ring Main Unit (RMU)	Item	5		R -
2A-1.1.6		MV Switchgear Room	Item	1		R -
2A-1.2		Nkqubela Hospital				
2A-1.2.1		500kVA Transformer	Item	1		R -
2A-1.2.2		Ring Main Unit (RMU)	Item	1		R -
2A-1.3		Grey Hospital				R -
2A-1.3.1		315kVA Transformer	Item	1		R -
2A-1.3.2		500kVA Transformer	Item	1		R -
2A-1.3.3		300kVA Mini-Substation	Item	1		R -
2A-1.3.4		Ring Main Unit (RMU)	Item	4		R -
2A-1.3.5		MV Switchgear Room	Item	2		R -
2A-1.4		Frere Hospital				
2A-1.4.1		300kVA Transformer	Item	3		R -
2A-1.4.2		315kVA Transformer	Item	2		R -
2A-1.4.3		500kVA Transformer	Item	1		R -
2A-1.4.4		630kVA Transformer	Item	1		R -
2A-1.4.5		500kVA Mini-Substation	Item	1		R -
2A-1.4.6		Ring Main Unit (RMU)	Item	5		R -
2A-1.4.7		Battery Tripping Unit (BTU)	Item	3		R -
2A-1.4.8		6-Way MV Feeder Bay (630A)	Item	1		R -
2A-1.5		Cecilia Makhiwane Hospital				
2A-1.5.1		Unknown Transformer	Item	3		R -
2A-1.5.2		100kVA Transformer	Item	1		R -
2A-1.5.3		600kVA Transformer	Item	2		R -
2A-1.5.4		2500kVA Transformer	Item	2		R -
2A-1.5.5		400kVA Mini-Substation	Item	2		R -
2A-1.5.6		500kVA Mini-Substation	Item	3		R -
2A-1.5.7		Ring Main Unit (RMU)	Item	5		R -
2A-1.5.8		1250kVA Step-Up Transformer	Item	2		R -
2A-1.5.9		Battery Tripping Unit (BTU)	Item	2		R -
2A-1.5.10		MV Switchgear Room	Item	2		R -
		Sub-Total				R -

[illegible]

SCHEDULE 2A-2: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2A-2	GM 2.5 (5)	COMPILING OF PRICED SPARE PART LISTS: Compile detailed, comprehensive priced spare parts list for each site and asset type (based on Contractor's cost price). NOTE: The Employer retains the right to negotiate the offered spare part prices, if they are not in line with national price norms.				
2A-2.1		Bhisho Hospital	Item			
2A-2.1.1		800kVA Transformer	Item	1		R -
2A-2.1.2		500kVA Transformer	Item	1		R -
2A-2.1.3		315kVA Transformer	Item	2		R -
2A-2.1.4		315kVA Mini-Substation	Item	1		R -
2A-2.1.5		Ring Main Unit (RMU)	Item	5		R -
2A-2.1.6		MV Switchgear Room	Item	1		R -
2A-2.2		Nkqubela Hospital				
2A-2.2.1		500kVA Transformer	Item	1		R -
2A-2.2.2		Ring Main Unit (RMU)	Item	1		R -
2A-2.3		Grey Hospital				
2A-2.3.1		315kVA Transformer	Item	1		R -
2A-2.3.2		500kVA Transformer	Item	1		R -
2A-2.3.3		300kVA Mini-Substation	Item	1		R -
2A-2.3.4		Ring Main Unit (RMU)	Item	4		R -
2A-2.3.5		MV Switchgear Room	Item	2		R -
2A-2.4		Frere Hospital				
2A-2.4.1		300kVA Transformer	Item	3		R -
2A-2.4.2		315kVA Transformer	Item	2		R -
2A-2.4.3		500kVA Transformer	Item	1		R -
2A-2.4.4		630kVA Transformer	Item	1		R -
2A-2.4.5		500kVA Mini-Substation	Item	1		R -
2A-2.4.6		Ring Main Unit (RMU)	Item	5		R -
2A-2.4.7		Battery Tripping Unit (BTU)	Item	3		R -
2A-2.4.8		6-Way MV Feeder Bay (630A)	Item	1		R -
2A-2.5		Cecilia Makhiwane Hospital				
2A-2.5.1		Unknown Transformer	Item	3		R -
2A-2.5.2		100kVA Transformer	Item	1		R -
2A-2.5.3		600kVA Transformer	Item	2		R -
2A-2.5.4		2500kVA Transformer	Item	2		R -
2A-2.5.5		400kVA Mini-Substation	Item	2		R -
2A-2.5.6		500kVA Mini-Substation	Item	3		R -
2A-2.5.7		Ring Main Unit (RMU)	Item	5		R -
2A-2.5.8		1250kVA Step-Up Transformer	Item	2		R -
2A-2.5.9		Battery Tripping Unit (BTU)	Item	2		R -
2A-2.5.10		MV Switchgear Room	Item	2		R -
		Sub-Total				R -

[illegible]

SCHEDULE 2A-3: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2A-3	GM 2.5	COMPILING OF DETAILED REPAIR SCHEDULE: Compile detailed, comprehensive repair schedule including defect description, recommended repair method, detailed quote including priced spare parts, outsourced work, and provisional work program, for each Health Facility and asset type.				
2A-3.1		Bhisho Hospital	Item			
2A-3.1.1		800kVA Transformer	Item	1		R -
2A-3.1.2		500kVA Transformer	Item	1		R -
2A-3.1.3		315kVA Transformer	Item	2		R -
2A-3.1.4		315kVA Mini-Substation	Item	1		R -
2A-3.1.5		Ring Main Unit (RMU)	Item	5		R -
2A-3.1.6		MV Switchgear Room	Item	1		R -
2A-3.2		Nkqubela Hospital				
2A-3.2.1		500kVA Transformer	Item	1		R -
2A-3.2.2		Ring Main Unit (RMU)	Item	1		R -
2A-3.3		Grey Hospital				
2A-3.3.1		315kVA Transformer	Item	1		R -
2A-3.3.2		500kVA Transformer	Item	1		R -
2A-3.3.3		300kVA Mini-Substation	Item	1		R -
2A-3.3.4		Ring Main Unit (RMU)	Item	4		R -
2A-3.3.5		MV Switchgear Room	Item	2		R -
2A-3.4		Frere Hospital				
2A-3.4.1		300kVA Transformer	Item	3		R -
2A-3.4.2		315kVA Transformer	Item	2		R -
2A-3.4.3		500kVA Transformer	Item	1		R -
2A-3.4.4		630kVA Transformer	Item	1		R -
2A-3.4.5		500kVA Mini-Substation	Item	1		R -
2A-3.4.6		Ring Main Unit (RMU)	Item	5		R -
2A-3.4.7		Battery Tripping Unit (BTU)	Item	3		R -
2A-3.4.8		6-Way MV Feeder Bay (630A)	Item	1		R -
2A-3.5		Cecilia Makhiwane Hospital				
2A-3.5.1		Unknown Transformer	Item	3		R -
2A-3.5.2		100kVA Transformer	Item	1		R -
2A-3.5.3		600kVA Transformer	Item	2		R -
2A-3.5.4		2500kVA Transformer	Item	2		R -
2A-3.5.5		400kVA Mini-Substation	Item	2		R -
2A-3.5.6		500kVA Mini-Substation	Item	3		R -
2A-3.5.7		Ring Main Unit (RMU)	Item	5		R -
2A-3.5.8		1250kVA Step-Up Transformer	Item	2		R -
2A-3.5.9		Battery Tripping Unit (BTU)	Item	2		R -
2A-3.5.10		MV Switchgear Room	Item	2		R -
		Sub-Total				R -

[illegible]

SCHEDULE 2A-4: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2A-4	GM 2.6	COMPILE FUNCTIONAL CONDITION ASSESSMENT REPORT: Compile Functional Condition Assessment Report for all asset types at all Health Facilities included in the Tender				
2A-4.1		Bhisho Hospital	Item			
2A-4.1.1		800kVA Transformer	Item	1		R -
2A-4.1.2		500kVA Transformer	Item	1		R -
2A-4.1.3		315kVA Transformer	Item	2		R -
2A-4.1.4		315kVA Mini-Substation	Item	1		R -
2A-4.1.5		Ring Main Unit (RMU)	Item	5		R -
2A-4.1.6		MV Switchgear Room	Item	1		R -
2A-4.2		Nkqubela Hospital				
2A-4.2.1		500kVA Transformer	Item	1		R -
2A-4.2.2		Ring Main Unit (RMU)	Item	1		R -
2A-4.3		Grey Hospital				
2A-4.3.1		315kVA Transformer	Item	1		R -
2A-4.3.2		500kVA Transformer	Item	1		R -
2A-4.3.3		300kVA Mini-Substation	Item	1		R -
2A-4.3.4		Ring Main Unit (RMU)	Item	4		R -
2A-4.3.5		MV Switchgear Room	Item	2		R -
2A-4.4		Frere Hospital				
2A-4.4.1		300kVA Transformer	Item	3		R -
2A-4.4.2		315kVA Transformer	Item	2		R -
2A-4.4.3		500kVA Transformer	Item	1		R -
2A-4.4.4		630kVA Transformer	Item	1		R -
2A-4.4.5		500kVA Mini-Substation	Item	1		R -
2A-4.4.6		Ring Main Unit (RMU)	Item	5		R -
2A-4.4.7		Battery Tripping Unit (BTU)	Item	3		R -
2A-4.4.8		6-Way MV Feeder Bay (630A)	Item	1		R -
2A-4.5		Cecilia Makhiwane Hospital				
2A-4.5.1		Unknown Transformer	Item	3		R -
2A-4.5.2		100kVA Transformer	Item	1		R -
2A-4.5.3		600kVA Transformer	Item	2		R -
2A-4.5.4		2500kVA Transformer	Item	2		R -
2A-4.5.5		400kVA Mini-Substation	Item	2		R -
2A-4.5.6		500kVA Mini-Substation	Item	3		R -
2A-4.5.7		Ring Main Unit (RMU)	Item	5		R -
2A-4.5.8		1250kVA Step-Up Transformer	Item	2		R -
2A-4.5.9		Battery Tripping Unit (BTU)	Item	2		R -
2A-4.5.10		MV Switchgear Room	Item	2		R -
		Sub-Total				R -

[illegible]

SCHEDULE 2B-1: FUNCTIONAL REPAIR SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2B-1	GM 2.5	FUNCTIONAL CONDITION ASSESSMENT: Perform Functional Condition Assessment (Inspection and Testing) on all listed assets at all Health Facilities included in the Tender				
2B-1.1		Cathcart Hospital				
2B-1.1.1		200kVA Mini-Substation	Item	1		
2B-1.2		SS Gida Hospital				
2B-1.2.1		500kVA Transformer	Item	1		
2B-1.2.2		Ring Main Unit (RMU)	Item	1		
2B-1.2.3		MV Switchgear Room	Item	1		
2B-1.3		Victoria Hospital				
2B-1.3.1		100kVA Mini-Substation	Item	1		
2B-1.3.2		200kVA Mini-Substation	Item	5		
2B-1.3.3		315kVA Mini-Substation	Item	1		
2B-1.3.4		Ring Main Unit (RMU)	Item	2		
2B-1.3.5		MV Feeder Bay (630A)	Item	2		
2B-1.3.6		MV Switchgear Room	Item	1		
2B-1.4		Willowvale CHC				
2B-1.4.1		200kVA Transformer	Item	1		
2B-1.4.2		MV Switchgear Room	Item	1		
2B-1.5		Winterburg Hospital				
2B-1.5.1		200kVA Transformer	Item	1		
2B-1.5.2		MV Switchgear Room	Item	1		
2B-1.6		Tower Hospital				
2B-1.6.1		200kVA Mini-Substation	Item	1		
2B-1.6.2		315kVA Mini-Substation	Item	3		
2B-1.6.3		400kVA Mini-Substation	Item	1		
2B-1.6.4		Ring Main Unit (RMU)	Item	5		
2B-1.7		Fort Beaufort Hospital				
2B-1.7.1		315kVA Mini-Substation	Item	1		
2B-1.7.2		Ring Main Unit (RMU)	Item	1		
2B-1.8		Bedford Hospital				
2B-1.8.1		315kVA Mini-Substation	Item	1		
2B-1.9		Adelaide Hospital				
2B-1.9.1		300kVA Transformer	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE 2B-2: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2B-2	GM 2.5 (5)	COMPILING OF PRICED SPARE PART LISTS: Compile detailed, comprehensive priced spare parts list for each site and asset type (based on Contractor's cost price). NOTE: The Employer retains the right to negotiate the offered spare part prices, if they are not in line with national price norms.				
2B-2.1		Cathcart Hospital				
2B-2.1.1		200kVA Mini-Substation	Item	1		
2B-2.2		SS Gida Hospital				
2B-2.2.1		500kVA Transformer	Item	1		
2B-2.2.2		Ring Main Unit (RMU)	Item	1		
2B-2.2.3		MV Switchgear Room	Item	1		
2B-2.3		Victoria Hospital				
2B-2.3.1		100kVA Mini-Substation	Item	1		
2B-2.3.2		200kVA Mini-Substation	Item	5		
2B-2.3.3		315kVA Mini-Substation	Item	1		
2B-2.3.4		Ring Main Unit (RMU)	Item	2		
2B-2.3.5		MV Feeder Bay (630A)	Item	2		
2B-2.3.6		MV Switchgear Room	Item	1		
2B-2.4		Willowvale CHC				
2B-2.4.1		200kVA Transformer	Item	1		
2B-2.4.2		MV Switchgear Room	Item	1		
2B-2.5		Winterburg Hospital				
2B-2.5.1		200kVA Transformer	Item	1		
2B-2.5.2		MV Switchgear Room	Item	1		
2B-2.6		Tower Hospital				
2B-2.6.1		200kVA Mini-Substation	Item	1		
2B-2.6.2		315kVA Mini-Substation	Item	3		
2B-2.6.3		400kVA Mini-Substation	Item	1		
2B-2.6.4		Ring Main Unit (RMU)	Item	5		
2B-2.7		Fort Beaufort Hospital				
2B-2.7.1		315kVA Mini-Substation	Item	1		
2B-2.7.2		Ring Main Unit (RMU)	Item	1		
2B-2.8		Bedford Hospital				
2B-2.8.1		315kVA Mini-Substation	Item	1		
2B-2.9		Adelaide Hospital				
2B-2.9.1		300kVA Transformer	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE 2B-3: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2B-3	GM 2.5	COMPILING OF DETAILED REPAIR SCHEDULE: Compile detailed, comprehensive repair schedule including defect description, recommended repair method, detailed quote including priced spare parts, outsourced work, and provisional work program, for each Health Facility and asset type.				
2B-3.1		Cathcart Hospital				
2B-3.1.1		200kVA Mini-Substation	Item	1		
2B-3.2		SS Gida Hospital				
2B-3.2.1		500kVA Transformer	Item	1		
2B-3.2.2		Ring Main Unit (RMU)	Item	1		
2B-3.2.3		MV Switchgear Room	Item	1		
2B-3.3		Victoria Hospital				
2B-3.3.1		100kVA Mini-Substation	Item	1		
2B-3.3.2		200kVA Mini-Substation	Item	5		
2B-3.3.3		315kVA Mini-Substation	Item	1		
2B-3.3.4		Ring Main Unit (RMU)	Item	2		
2B-3.3.5		MV Feeder Bay (630A)	Item	2		
2B-3.3.6		MV Switchgear Room	Item	1		
2B-3.4		Willowvale CHC				
2B-3.4.1		200kVA Transformer	Item	1		
2B-3.4.2		MV Switchgear Room	Item	1		
2B-3.5		Winterburg Hospital				
2B-3.5.1		200kVA Transformer	Item	1		
2B-3.5.2		MV Switchgear Room	Item	1		
2B-3.6		Tower Hospital				
2B-3.6.1		200kVA Mini-Substation	Item	1		
2B-3.6.2		315kVA Mini-Substation	Item	3		
2B-3.6.3		400kVA Mini-Substation	Item	1		
2B-3.6.4		Ring Main Unit (RMU)	Item	5		
2B-3.7		Fort Beaufort Hospital				
2B-3.7.1		315kVA Mini-Substation	Item	1		
2B-3.7.2		Ring Main Unit (RMU)	Item	1		
2B-3.8		Bedford Hospital				
2B-3.8.1		315kVA Mini-Substation	Item	1		
2B-3.9		Adelaide Hospital				
2B-3.9.1		300kVA Transformer	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE 2B-4: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	
2B-4	GM 2.6	COMPILE FUNCTIONAL CONDITION ASSESSMENT REPORT: Compile Functional Condition Assessment Report for all asset types at all Health Facilities included in the Tender				
2B-4.1		Cathcart Hospital				
2B-4.1.1		200kVA Mini-Substation	Item	1		
2B-4.2		SS Gida Hospital				
2B-4.2.1		500kVA Transformer	Item	1		
2B-4.2.2		Ring Main Unit (RMU)	Item	1		
2B-4.2.3		MV Switchgear Room	Item	1		
2B-4.3		Victoria Hospital				
2B-4.3.1		100kVA Mini-Substation	Item	1		
2B-4.3.2		200kVA Mini-Substation	Item	5		
2B-4.3.3		315kVA Mini-Substation	Item	1		
2B-4.3.4		Ring Main Unit (RMU)	Item	2		
2B-4.3.5		MV Feeder Bay (630A)	Item	2		
2B-4.3.6		MV Switchgear Room	Item	1		
2B-4.4		Willowvale CHC				
2B-4.4.1		200kVA Transformer	Item	1		
2B-4.4.2		MV Switchgear Room	Item	1		
2B-4.5		Winterburg Hospital				
2B-4.5.1		200kVA Transformer	Item	1		
2B-4.5.2		MV Switchgear Room	Item	1		
2B-4.6		Tower Hospital				
2B-4.6.1		200kVA Mini-Substation	Item	1		
2B-4.6.2		315kVA Mini-Substation	Item	3		
2B-4.6.3		400kVA Mini-Substation	Item	1		
2B-4.6.4		Ring Main Unit (RMU)	Item	5		
2B-4.7		Fort Beaufort Hospital				
2B-4.7.1		315kVA Mini-Substation	Item	1		
2B-4.7.2		Ring Main Unit (RMU)	Item	1		
2B-4.8		Bedford Hospital				
2B-4.8.1		315kVA Mini-Substation	Item	1		
2B-4.9		Adelaide Hospital				
2B-4.9.1		300kVA Transformer	Item	1		
2B-4.10	GM 6	PROVISION FOR SPECIAL TESTING BY SERVICE MANAGER: Lump sum provision for doing special tests at the Health Facilities as per the prerogative of the Service Manager	PSum	1	130,000.00	R 130,000.
2B-4.10.1	Clause 11.2(8)	Direct Fee Percentage (Mark-up) to be charged by Contractor on amounts above	%			R -
2B-4.6	GM 2.6	MAINTENANCE DOCUMENTATION SITE STORAGE CONSOLE: Provisional sum to supply and install O&M Manual, Log Books, and site Maintenance Records at each equipment type location as directed by the Service Manager	PSum	1	17,500.00	R 17,500.0
2B-4.6.1	Clause 11.2(8)	Direct Fee Percentage (Mark-up) to be charged by Contractor on amounts above	%			
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULE 3A: MAINTENANCE SERVICE SCHEDULE: BUFFALO CITY METROPOLITAN MUNICIPALITY

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	No. of Equipm ent	No. of Services	QTY (A)	RATE (B)	AMOUNT (B)	(C) = (A) x (B)
3A-1	GM 3.2 & C3.1a	MAINTENANCE WORKS: Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)							
		Bhisho Hospital							
3A-1.1		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3A-1.1.1		800kVA Transformer	No	1	3	3		R	-
3A-1.1.2		500kVA Transformer	No	1	3	3		R	-
3A-1.1.3		315kVA Transformer	No	2	3	6		R	-
3A-1.1.4		315kVA Mini-Substation	No	1	3	3		R	-
3A-1.1.5		Ring Main Unit (RMU)	No	5	3	15		R	-
3A-1.1.6		MV Switchgear Room	No	1	3	3		R	-
3A-1.2		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.							
3A-1.2.1		800kVA Transformer	No	1	4	4		R	-
3A-1.2.2		500kVA Transformer	No	1	4	4		R	-
3A-1.2.3		315kVA Transformer	No	2	4	8		R	-
3A-1.2.4		315kVA Mini-Substation	No	1	4	4		R	-
3A-1.2.5		Ring Main Unit (RMU)	No	5	4	20		R	-
3A-1.2.6		MV Switchgear Room	No	1	4	4		R	-
		Nkqubela Hospital							
3A-1.3		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3A-1.3.1		500kVA Transformer	No	1	3	3		R	-
3A-1.3.2		Ring Main Unit (RMU)	No	1	3	3		R	-
3A-1.4		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.							
3A-1.4.1		500kVA Transformer	No	1	4	4		R	-
3A-1.4.2		Ring Main Unit (RMU)	No	1	4	4		R	-
		Grey Hospital							
3A-1.5		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3A-1.5.1		315kVA Transformer	No	1	3	3		R	-
2A-1.5.2		500kVA Transformer	No	1	3	3		R	-
2A-1.5.3		300kVA Mini-Substation	No	1	3	3		R	-
2A-1.5.4		Ring Main Unit (RMU)	No	4	3	12		R	-
2A-1.5.5		MV Switchgear Room	No	2	3	6		R	-
3A-1.6		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.							
3A-1.6.1		315kVA Transformer	No	1	4	4		R	-
3A-1.6.2		500kVA Transformer	No	1	4	4		R	-
3A-1.6.3		300kVA Mini-Substation	No	1	4	4		R	-
3A-1.6.4		Ring Main Unit (RMU)	No	4	4	16		R	-
3A-1.6.5		MV Switchgear Room	No	2	4	8		R	-
		Frere Hospital							
3A-1.7		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3A-1.7.1		300kVA Transformer	No	3	3	9		R	-
3A-1.7.2		315kVA Transformer	No	2	3	6		R	-
3A-1.7.3		500kVA Transformer	No	1	3	3		R	-
3A-1.7.4		630kVA Transformer	No	1	3	3		R	-
3A-1.7.5		500kVA Mini-Substation	No	1	3	3		R	-
3A-1.7.6		Ring Main Unit (RMU)	No	5	3	15		R	-
3A-1.7.7		Battery Tripping Unit (BTU)	No	3	3	9		R	-
3A-1.7.8		6-Way MV Feeder Bay (630A)	No	6	3	18		R	-
		TOTAL CARRIED TO NEXT PAGE						R	-

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	No. of Equipment	No. of Services	QTY (A)	RATE (B)	AMOUNT (B) (C) = (A) x
3A-1	GM 3.2 & C3.1a	MAINTENANCE WORKS: Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)						
		TOTAL FROM PREVIOUS PAGE						R -
		Frere Hospital						
3A-1.8		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.						
3A-1.8.1		300kVA Transformer	No	3	4	12		R -
3A-1.8.2		315kVA Transformer	No	2	4	8		R -
3A-1.8.3		500kVA Transformer	No	1	4	4		R -
3A-1.8.4		630kVA Transformer	No	1	4	4		R -
3A-1.8.5		500kVA Mini-Substation	No	1	4	4		R -
3A-1.8.6		Ring Main Unit (RMU)	No	5	4	20		R -
3A-1.8.7		Battery Tripping Unit (BTU)	No	3	4	12		R -
3A-1.8.8		6-Way MV Feeder Bay (630A)	No	6	4	24		R -
		Cecilia Makhiwane Hospital						
3A-1.9		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.						
3A-1.9.1		Unknown Transformer	No	3	3	9		R -
3A-1.9.2		100kVA Transformer	No	1	3	3		R -
3A-1.9.3		600kVA Transformer	No	2	3	6		R -
3A-1.9.4		2500kVA Transformer	No	2	3	6		R -
3A-1.9.5		400kVA Mini-Substation	No	2	3	6		R -
3A-1.9.6		500kVA Mini-Substation	No	3	3	9		R -
3A-1.9.7		Ring Main Unit (RMU)	No	5	3	15		R -
3A-1.9.8		1250kVA Step-Up Transformer	No	2	3	6		R -
3A-1.9.9		Battery Tripping Unit (BTU)	No	2	3	6		R -
3A-1.9.10		MV Switchgear Room	No	2	3	6		R -
		Cecilia Makhiwane Hospital						
3A-1.10		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.						
3A-1.10.1		Unknown Transformer	No	3	4	12		R -
3A-1.10.2		100kVA Transformer	No	1	4	4		R -
3A-1.10.3		600kVA Transformer	No	2	4	8		R -
3A-1.10.4		2500kVA Transformer	No	2	4	8		R -
3A-1.10.5		400kVA Mini-Substation	No	2	4	8		R -
3A-1.10.6		500kVA Mini-Substation	No	3	4	12		R -
3A-1.10.7		Ring Main Unit (RMU)	No	5	4	20		R -
3A-1.10.8		1250kVA Step-Up Transformer	No	2	4	8		R -
3A-1.10.9		Battery Tripping Unit (BTU)	No	2	4	8		R -
3A-1.10.10		MV Switchgear Room	No	2	4	8		R -
		Duncan Village CHC						
3A-1.11		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.						
3A-1.11.1		300kVA Transformer	No	1	3	3		R -
3A-1.11.2		Ring Main Unit (RMU)	No	4	3	12		R -
3A-1.11.3		MV Switchgear Room	No	1	3	3		R -
3A-1.12		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.						
3A-1.12.1		300kVA Transformer	No	1	4	4		R -
3A-1.12.2		Ring Main Unit (RMU)	No	4	4	16		R -
3A-1.12.3		MV Switchgear Room	No	1	4	4		R -
		Empilweni Gomo CHC						
3A-1.13		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.						
3A-1.13.1		200kVA Transformer	No	1	3	3		R -
3A-1.13.2		Ring Main Unit (RMU)	No	1	3	3		R -
3A-1.14		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.						
3A-1.14.1		200kVA Transformer	No	1	4	4		R -
3A-1.14.2		Ring Main Unit (RMU)	No	1	4	4		R -
TOTAL CARRIED FORWARD TO SUMMARY								

SCHEDULE 3B: MAINTENANCE SERVICE SCHEDULE: AMATOLE DISTRICT

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	No. of Equipm ent	No. of Services	QTY (A)	RATE (B)	AMOUNT (B)	(C) = (A) x (B)
3B-1	GM 3.2 & C3.1a	MAINTENANCE WORKS: Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per equipment)							
		Cathcart Hospital							
3B-1.1		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3B-1.1.1		200kVA Mini-Substation	No	1	3	3		R	-
3B-1.2		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.							
3B-1.2.1		200kVA Mini-Substation	No	1	4	4		R	-
		SS Gida Hospital							
3B-1.3		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3B-1.3.1		500kVA Transformer	No	1	3	3		R	-
3B-1.3.2		Ring Main Unit (RMU)	No	1	3	3		R	-
3B-1.3.3		MV Switchgear Room	No	1	3	3		R	-
3B-1.4		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.							
3B-1.4.1		500kVA Transformer	No	1	4	4		R	-
3B-1.4.2		Ring Main Unit (RMU)	No	1	4	4		R	-
3B-1.4.3		MV Switchgear Room	No	1	4	4		R	-
		Victoria Hospital							
3B-1.5		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3B-1.5.1		100kVA Mini-Substation	No	1	3	3		R	-
3B-1.5.2		200kVA Mini-Substation	No	5	3	15		R	-
3B-1.5.3		315kVA Mini-Substation	No	1	3	3		R	-
3B-1.5.4		Ring Main Unit (RMU)	No	2	3	6		R	-
3B-1.5.5		MV Feeder Bay (630A)	No	2	3	6		R	-
3B-1.5.6		MV Switchgear Room	No	1	3	3		R	-
3B-1.6		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.							
3B-1.6.1		100kVA Mini-Substation	No	1	4	4		R	-
3B-1.6.2		200kVA Mini-Substation	No	5	4	20		R	-
3B-1.6.3		315kVA Mini-Substation	No	1	4	4		R	-
3B-1.6.4		Ring Main Unit (RMU)	No	2	4	8		R	-
3B-1.6.5		MV Feeder Bay (630A)	No	2	4	8		R	-
3B-1.6.6		MV Switchgear Room	No	1	4	4		R	-
		Willowvale CHC							
3B-1.7		Minor Service Cost : Price for Six Monthly Inspections per asset, as per Six Monthly Service Inspection Guideline in C6.							
3B-1.7.1		200kVA Transformer	No	1	3	3		R	-
3B-1.7.2		MV Switchgear Room	No	1	3	3		R	-
3B-1.8		Major Service Cost: Price per Annually Service / Inspection per machine, as per tasks from the Annually Service Inspection Guideline in C6.							
3B-1.8.1		200kVA Transformer	No	1	4	4		R	-
3B-1.8.2		MV Switchgear Room	No	1	4	4		R	-
		TOTAL CARRIED TO NEXT PAGE						R	-

[illegible]

SCHEDULE 4: TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION OF THE WORKS

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4.1	GM 2.8	LABOUR RATES APPLICABLE TO UNSCHEDULED WORK: Labour rates that Contractor will charge for additional adhoc work that is not contained in Schedules 1 to 3.				
4.1.1		Electrical Maintenance Supervisor	Hr	300		R -
4.1.2		Artisan (Trade Tested & Additional Certification)	Hr	430		R -
4.1.3		Artisan Aid	Hr	500		R -
4.2	GM 2.8.3	TRAVELLING : Travelling cost will be as per the rates for reimbursable expenses published monthly by the National Department of Public Works at the time of rendering the service/repair.				
4.2.1		Vehicle Travelling Estimate	Km	110,000		R -
4.3	GM 2.8.3	ACCOMMODATION AND SUBSISTENCE: Daily Rates per person that the Contractor will claim for approved trips lasting more than one day at a time.				
4.3.1		Accommodation	Per/night	60		R -
4.4	GM 2.5, GM 2.8.1 & GM 2.10.3	PROVISION TO COVER REPAIRS DURING THE TERM OF THE CONTRACT : Lump Sum Provision to cover repairs and breakdowns during the course of the Contract in addition to the agreed routine servicing of the Assets.	PSum	1	R 4,000,000.00	R 4,000,000.00
4.4.1	GM 2.8.1 & Clause 11.2(8)	DIRECT FEE PERCENTAGE (MARK-UP) ON MATERIALS AND SERVICES THAT IS NOT INCLUDED IN PRICE LISTS: Mark-up on proven cost for materials and/or Outsourced Services based on the Provisional sum listed in Item 4. above. (Apply % to provisional sum in Item 4 above when pricing the tender)	%			R -
TOTAL CARRIED FORWARD TO SUMMARY						R

PROJECT NAME	SCHEDULED MAINTENANCE TO MEDIUM VOLTAGE FACILITIES- CLUSTER THREE (3) - BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

DECLARATION (In respect of completeness of Tender)

Department of Health
Eastern Cape Department of
HealthGlobal Life Centre
c/o R63 and Phalo
AvenueBhisho

I/We, the undersigned, do hereby declare that these are the properly priced Schedules of Quantities forming Part C2.2 of this Contract Document, upon which my/our tender for **TENDER NO. SCMU3-24/25-0460-HO: SCHEDULE MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES**

has been based.

SIGNED ON BEHALF OF TENDERER:

DATE:

PART C3: SCOPE OF WORKS

C3.1: SCOPE OF WORKS

PROJECT NAME	SCHEDULED MAINTENANCE OF MEDIUM VOLTAGE FACILITIES- BUFFALO CITY AND AMATHOLE DISTRICT – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

This specification is for the repair and maintenance of Medium Voltage Equipment, for the duration of the Contract period, in the following Health facilities:

BUFFALO CITY DISTRICT

Item no.	FACILITY
1	Bhisho Hospital
2	Nkqubela Hospital
3	Grey Hospital
4	Frere Hospital
5	Cecelia Makhiwane Hospital
6	Duncan Village CHC
7	Empilweni Gompo CHC

AMATHOLE DISTRICT

Item no.	FACILITY
1	Cathcart Hospital
2	SS Gida Hospital
3	Victoria Hospital
4	Willowvale CHC
5	Winterberg Hospital
6	Tower Hospital
7	Fort Beaufort Hospital
8	Bedford Hospital
9	Adelaide Hospital

Details of the work required shall be as listed in the Price Lists which have been sub-divided into the following categories:

SCHEDULE 1: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

SCHEDULE 2: FUNCTIONAL REPAIR SCHEDULE

SCHEDULE 3: MAINTENANCE SERVICE SCHEDULE

SCHEDULE 4: TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION FOR THE WORKS

SCHEDULE 5: ROAMING MINIATURE SUBSTATIONS OF THE SAME RATING AS THE TRANSFORMER AT THE FACILITY

ANNEXURE A:
ASSET REGISTER
BUFFALO CITY DISTRICT

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
BHISHO HOSPITAL				
Transformer 1	800kVA	Hawker Siddeley	T7186	Substation 2 near workshop
Transformer 2	315kVA	Hawker Siddeley	T7184	Substation 2 near workshop
Transformer 3	500kVA	Hawker Siddeley	T7185	Substation 1 near dispensary
Transformer 4	315kVA	Hawker Siddeley	T7187	Substation 1 near dispensary
Miniature Substation	315kVA	Hawker Siddeley	T7183	Mini Substation near nurses home
MV Switchgear 1	11kV	G.E.C Power Distribution	T1	Substation 1 near dispensary
MV Switchgear 2	11kV	G.E.C Power Distribution	T1	Substation 1 near dispensary
MV Switchgear 3	11kV	G.E.C Power Distribution	T1/OF	Substation 1 near dispensary
MV Switchgear 4	11kV	G.E.C Power Distribution	T1/OF	Substation 1 near dispensary
MV Switchgear 5	11kV	G.E.C Power Distribution	T1	Substation 1 near dispensary
MV Switchgear Room	N/A	N/A	N/A	In boundary

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
EMPILWENI CHC				
Transformer	200kVA	Actom	T81381/01/002	In boundary
MV Switchgear	200kVA	Alstom	K3AF	In boundary

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
GREY HOSPITAL				
Transformer 1	315kVA	Mandaul Transformers	612/1	Transformer room, at the ground floor of the hospital
Transformer 2	500kVA	Mandaul Transformers	611/1	Transformer room, at the ground floor of the hospital
Miniature Substation	300kVA	English Electric	1563/8	Near workshop
MV Switchgear 1	11kV	G.E.C Power Distribution	T1	Transformer room, at the ground floor of the hospital
MV Switchgear 2	11kV	G.E.C Power Distribution	T1/OF	Transformer room, at the ground floor of the hospital
MV Switchgear 3	11kV	G.E.C Power Distribution	T1/OF	Transformer room, at the ground floor of the hospital
MV Switchgear 4	11kV	G.E.C Power Distribution	T1	Transformer room, at the ground floor of the hospital
MV Switchgear Room	N/A	N/A	N/A	Transformer room, at the ground floor of the hospital
Transformer Room	N/A	N/A	N/A	Transformer room, at the ground floor of the hospital

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
NKQUBELA HOSPITAL				
Transformer	500kVA	SEMA Electrical	TA-79: 640-6	Transformer room near entrance
MV Switchgear	11kV	Reyrolle	121A264Y	Transformer room near entrance
MV Switchgear Room	N/A	N/A	N/A	Transformer room near entrance

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
DUNCAN VILLAGE CHC				
Transformer	300kVA	Brush	N/A	Substation room
MV Switchgear 1	11kV	Reyrolle	867A625Y	Substation room
MV Switchgear 2	11kV	Reyrolle	867A625Y	Substation room
MV Switchgear 3	11kV	Reyrolle	867A625Y	Substation room
MV Switchgear Room	N/A	N/A	N/A	Substation room

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
FRERE HOSPITAL				
Municipal Incomer 1	11kV, 630A air insulated.	EATON	1010	
Feeder D Block	11kV, 630A air insulated.	EATON	1011	
Local Transformer Breaker	11kV, 630A air insulated.	EATON	1012	
Spare	11kV, 630A air insulated.	EATON	1013	
Feeder NTB C Side	11kV, 630A air insulated.	EATON	1014	
Municipal Incomer 2	11kV, 630A air insulated.	EATON	1015	
Transformer	500KVA 11000/400V	Power Engineering	PE2923	
Battery Tripping Unit	230VAC / 110VDC, 5A	Static Power	11-0609A	

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
CECELIA MAKHIWANE HOSPITAL				
1. Mini Sub Ring Feeder 1.	11kV, 800A	Actom	17183/2009	
2. Sub 2B Feeder 1.	11kV, 800A	Actom	17182/2009	Transformer room
3. Municipal Feeder 1.	11kV, 800A	Actom	19272/11	
4. Generator 1 / Transformer 1 MV Supply.	11kV, 800A	Actom		
5. Bus Section	11kV, 800A	Actom	17184/2009	
6. Local Transformer 1	11kV, 800A	Actom		
7. Municipal Feeder 2.	11kV, 800A	Actom	19271/11	
8. Sub 2B Feeder 2.	11kV, 800A	Actom	17187/2009	
9. Generator 2 / Transformer 2 MV Supply.	11kV, 800A	Actom	17185/2009	
10. Mini Sub Ring Feeder 2.	11kV, 800A	Actom	17188/2009	
Battery Tripping Unit	Vac(input): 230V Vdc(output): 110V, 10A	Static Power	12/1077	

AMATHOLE DISTRICT

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
VICTORIA HOSPITAL				
Mini Sub A	200kVA	GEC ALSTHOM	08215/1/1	Mini substation near mortuary
Mini Sub B	315kVA	E.C.C	11953	Mini substation near nurses home
Mini Sub C	200kVA	E.C.C	11951	Mini substation near laundry
Mini Sub D	100kVA	E.C.C	11954	Mini substation near doctor's houses
Mini Sub E	200kVA	E.C.C	11952	Mini substation near wards and theatre
Mini Sub F	N/A	N/A	N/A	Mini substation near kitchen
Mini Sub G	N/A	N/A	N/A	Not in use
RMU-1	11kV	ALSTOM	03/6280	Near mini substation E
RMU-2	11kV	GEC ALSTHOM	97/02948	Near mini substation F
MV Feeder Bay 1	12kV	ALSTOM	SBV4-800/25/S1	MV room at the boundary near the mortuary
MV Feeder Bay 2	N/A	N/A	N/A	MV room at the boundary near the mortuary
MV Switchgear Room	N/A	N/A	N/A	MV room at the boundary near the mortuary

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
BEDFORD HOSPITAL				
Miniature Substation	315kVA	ACTOM	24792/01/004	Outdoor transformer

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
ADELAIDE HOSPITAL				
Transformer	300kVA	Wale trans	12686	Outdoor transformer

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
CATHCART HOSPITAL				
Miniature Substation	200kVA	Power Engineers	19744	Mini substation
Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
TOWER HOSPITAL				
Transformer 1	200kVA	Power Engineers	30366	Mini substation near admin
Transformer 2	400kVA	Power Engineers	90865	Mini substation near wards
Transformer 3	315kVA	Power Engineers	30364	Mini substation near wards
Transformer 4	315kVA	Power Engineers	30367	Mini substation near workshop
Transformer 5	315kVA	Power Engineers	30368	Mini substation near boiler room
RMU 1	11kV	G.E.C Power Distribution	83-T3F-13243	Mini substation near admin
RMU 2	11kV	G.E.C Power Distribution	82-T3F-11010	Mini substation near wards
RMU 3	11kV	G.E.C Power Distribution	83-T3F-13696	Mini substation near wards
RMU 5	11kV	G.E.C Power Distribution	81-T3F-9461	Mini substation near workshop
Incomer 1	N/A	N/A	N/A	Sub station near entrance 2
Feeder 1	N/A	N/A	N/A	Sub station near entrance 2
Feeder 2	N/A	N/A	N/A	Sub station near entrance 2

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
WILLOWVALE CHC				
Transformer	200kVA	Desta	DC0012/243	Substation
MV Switchgear Room	N/A	N/A	N/A	Substation

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
SS GIDA HOSPITAL				
Transformer	500kVA	Hawker Siddeley	T4237/1	Substation
MV Switchgear	11kV	Tiger	P8318/1	Substation
MV Switchgear Room	N/A	N/A	N/A	Substation

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
WINTERBERG HOSPITAL				
Transformer	200kVA	Revive	RET 157503	Transformer room
MV Switchgear Room	N/A	N/A	N/A	Transformer room

Description/ Item	Size / Rating	OEM	Model Number: As engraved on the equipment	Location
FORT BEAUFORT HOSPITAL				
RMU	11kV	GEC Switchgear	74/2030	Mini substation near workshop
Transformer	315 kVA	GEC Switchgear		Mini substation near workshop



PART C3.1a

BCMM AND AMATHOLE HEALTH FACILITIES MV REPAIR AND MAINTENANCE PROJECT

PROJECT TECHNICAL SPECIFICATION

HEAD OFFICE – HEALTH FACILITIES MANAGEMENT

REF No. SCMU3-24/25-0460-HO INFRASTRUCTURE

**ELECTRICAL MAINTENANCE SERVICES CLUSTER THREE BUFFALO CITY AND
AMATHOLE DISTRICT**

NOVEMBER 2024

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ANNEXURES.

- A. INITIAL ASSESSMENT REPORTS.
- B. EXCEL SPREADSHEET - DESCRIPTION OF INSTALLATIONS / SUMMARY OF ASSETS.
- C. FORMAT FOR REPORTS ON SITE MAINTENANCE VISITS NO.1.
- D. FORMAT FOR OIL TEST RESULT REPORTS.

REFERENCES.

- A. ECDOH SPECIFICATIONS.
- B. BCMM SPECIFICATIONS.
- C. SANS, NRS AND IEC STANDARD SPECIFICATIONS.

PROJECT SPECIFICATION FOR REPAIR AND MAINTENANCE OF MEDIUM VOLTAGE (MV) ELECTRICAL INFRASTRUCTURE AT HOSPITAL AND HEALTH FACILITIES

1. DESCRIPTION OF INSTALLATIONS.

The Project entails the Electrical Repairs and Maintenance of the MV Installation at sixteen (16) Hospitals and Health Facilities in the BCMM and Amathole District area.

A comprehensive list of the Hospitals and Health Facilities and details of the MV Installations is covered in this Section and in Annexure B. (Summary of Asset Registers).

Details of the Repairs and Maintenance Requirements during the First Site Maintenance Visit and the Format for Reporting are dealt with in Sections 4 and 5 of this Specification as well as in Annexure C.

The full details of the Maintenance Work Descriptors / Codes are set out in Section 4 below.

For the purposes of describing the MV equipment, the first three (3) digits define the description of the MV Equipment as follows: -

The first two digits describe the MV equipment – SB – Switch-board comprising 11-kV Panels, TR – Transformer, MS – Mini-sub, RM – Ring Main Unit, BT – BTU, SS – Switch-house or Substation etc.

The third digit is the equipment type or size descriptor according to the descriptions as defined in the section below – A, B, C etc.

(The fourth and fifth digits describe the work to be done, on the First Site Maintenance Visit, and are defined in Section 4 below).

1.1 Definition of MV Equipment Descriptors / Codes. (First three digits).

- **SBA** – Indoor, Nine (9) or Ten (10) Panel Switch-board, GIS (SF6), Vacuum Breakers.
- **SBB** – Indoor, Five (5) Panel Switch-board, GIS (SF6), Vacuum Breakers.
- **SBC** – Indoor, Six (6) Panel Switch-board, Resin encapsulated / Air, Air Break CB Technology.
- **SBD** - Indoor, Three (3) Panel Switch-board, Oil insulated / Oil CB.
- **RMA** – Indoor, 3-Way Ring Main Unit, GIS (SF6), Vacuum Breaker.
- **RMB** – Indoor, 4-Way Ring Main Unit, GIS (SF6), Vacuum Breaker.
- **RMC** – Indoor, 2-Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.
- **RMD** – Indoor, 3 or 4 - Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.
- **RME** – Indoor, 3 or 4 - Way Ring Main Unit, Air Insulated / Air Break.
- **RMC** – Outdoor, 2-Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.
- **RMD** – Outdoor, 3-Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.
- **TRA** – Indoor, Large Transformer larger than 1-MVA and smaller than 2-MVA, Oil filled, OLTC.
- **TRB** – Indoor, Large Transformer, larger than 2-MVA, Resin, OLTC.
- **TRC** – Indoor, Transformer 500 up to 800-kVA, ONAN, with Buchholtz.
- **TRD** – Indoor, Distribution Transformer smaller than 500-kVA, ONAN, no Buchholtz, cable end box terminations or bushing terminations.
- **TRD** – Outdoor, Distribution Transformer smaller than 500-kVA, ONAN, no Buchholtz, Cable end box terminations or Bushing Terminations.
- **MSA** – Outdoor Mini-sub 500-kVA or smaller, SF6, Internal RMU.
- **MSB** – Outdoor Mini-sub 500-kVA or smaller, Oil filled, Integral RMU.
- **BTA** – Standard Free standing BTU with Ni-Cad batteries.
- **BTB** – Standard Free standing BTU with Lead Acid batteries.
- **SSA** – Switch-house or Transformer Room smaller than 20m².
- **SSB** – Switch-house or Transformer Room larger than 20m².

1.2 Details of MV Equipment at the various Hospitals / Health Facilities.

The MV Installations at the various ECDOH Hospitals and Health facilities which are dealt with in this Specification can be summarized as follows: -

TERTIARY HOSPITALS

1.2.1 Cecilia Makhiwane Hospital

- **SBA** – Main Switch-board - 11-kV, 800-Amp – Ten (10) Panel Switch-board, SF6 Gas Insulated, Vacuum Breakers (Actom).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **BTA** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **TRA** – Main Substation Step – Up Transformers No. 1 – 1250-kVA, 400/11000-V. (Power Tech) (Indoor, Manual Tap).
- **TRA** – Main Substation Step – Up Transformers No. 2 – 1250-kVA, 400/11000-V. (Power Tech) (Indoor, Manual Tap).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **TRC** – Main Substation Local Transformer 1. – 100-kVA, 11000/400-V. (Power Tech) (Indoor, Manual Tap).
- **SSB** – Switch-house or Transformer Room smaller than 20m².
- **SBA** – 11-kV, 800-Amp - Nine (9) Panel Substation 2B Switch-board, SF6 Gas Insulated, Vacuum Breakers (Actom).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **BTA** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **TRA** – Substation 2B Transformers No. 1 – 1600-kVA, 11000/400-V. (Alstom) (Indoor, Manual Tap).
- **TRA** – Substation 2B Transformers No. 2 – 1600-kVA, 11000/400-V. (Alstom) (Indoor, Manual Tap).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **SBB** – 11-kV, 800-Amp - Five (5) Panel Substation 4C Switch-board, SF6 Gas Insulated, Vacuum Breakers (Actom).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **BTA** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).

- **TRB** – Substation 4C Transformers No. 1 – 2500-kVA, 11000/400-V. (TCM Transformers) (Indoor, Manual Tap, Cast Resin Insulated, Totally Enclosed).
- **TRB** – Substation 4C Transformers No. 2 – 2500-kVA, 11000/400-V. (TCM Transformers) (Indoor, Manual Tap, Cast Resin Insulated, Totally Enclosed).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **MSB** – Mini-Substation Middee 2 (Outdoor) – 400-kVA, 11000/400-V & 3-Way RMU (Power Engineering & English Electric RMU).
- **MSB** – Mini-Substation Middee 3 (Outdoor) – 500-kVA, 11000/400-V & 3-Way RMU (Trend Technology & English Electric RMU).
- **MSB** – Mini-Substation Middee 4 (Outdoor) – Unknown - kVA, 11000/400-V & 3-Way RMU (GEC Power Engineering & GEC Power Engineering RMU).
- **MSB** – Mini-Substation 7 (Outdoor) – Unknown - kVA, 11000/400-V & 3-Way RMU (Unknown Not accessible).
- **MSB** – Mini-Substation 8 (Outdoor) – Unknown - kVA, 11000/400-V & 3-Way RMU (Hawker Siddeley / Tiger RMU). Not accessible – Could not open locks.

1.2.2 Frere Hospital

- **SBC** – Main Switch-board (Cheltenham) - 11-kV, 630-Amp – Six (6) Panel Switch-board, Air Insulated, Air Blast/Oil/Vacuum Breakers (Eaton).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **BTA** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **TRC** – Main Substation (Cheltenham) Transformer No. 1 – 500-kVA, 11000/400-V. (Power Engineering) (Indoor, Manual Tap).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **TRC** – Substation D Block Transformer No. 1 – 630-kVA, 11000/400-V. (Free State Transformers) (Indoor, Manual Tap).
- **RMA** – Substation D Block 3-way, 630-Amp SF6 Switch/BKR RMU. (Schneider) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **TRD** – NTB – C Side Substation (Outdoor). Transformer No. 1 – 300-kVA, 11000/400-V. (Power Engineering) (Outdoor, Manual Tap).
- **RMA** – NTB C Side Substation (Outdoor) RMU, 11-kV, 630-Amps, SF6 (ABB) (Outdoor).
- **TRD** – Maternity Substation Transformer No. 1 – 315-kVA, 11000/400-V. (Power Technology) (Indoor, Manual Tap).

- **RME** – Maternity Substation 3-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **TRD** – NTB B Side Transformer No1 – 300-kVA, 11000/400-V. (Power Engineering) (Indoor, Manual Tap).
- **RME** – NTB B Side 4-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **TRD** – J Block Transformer No1 – 315-kVA, 11000/400-V. (BBT) (Indoor, Manual Tap).
- **RMC** – J Block 3-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **TRC** – Laundry Transformer No1 – 500-kVA, 11000/400-V. (Power Engineering) (Indoor, Manual Tap).
- **RMC** – Laundry 3-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **BTA** – Laundry Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).

DISTRICT HOSPITALS AND CHCs.

1.2.3 Bhisho Hospital.

- **TRC** – Substation No. 1 - Transformer No. 1 – 800-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **TRD** – Substation No. 1 - Transformer No. 2 – 315-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **RMC** – Substation No. 1 - 4-way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Engineering) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **TRC** – Substation No. 2 - Transformer No1 – 500-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **TRD** – Substation No. 2 - Transformer No 2 – 315-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **RMC** – Substation No. 2 - 4-way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Engineering) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **MSB** – Mini-Substation No. 1 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (Hawker Siddeley Transformer (Oil filled) & Hawker Siddeley/Tiger RMU (Oil filled)).

1.2.4 Victoria Hospital.

- **RMA** – Main Substation RMU - 3-way, 630-Amp SF6 Switch/Vacuum BKR RMU. (Alstom) (Indoor).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **MSB** – Mini-Substation A (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB** – Mini-Substation B (Outdoor Type) – XXX - kVA, 11000/400-V & 3-Way RMU. (No Access).
- **MSB** – Mini-Substation C (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB** – Mini-Substation D (Outdoor Type) – 100 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).

- **MSB** – Mini-Substation E (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB** – Mini-Substation F (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB** – Mini-Substation G (Outdoor Type) – NOT IN USE.
- **RMD** – RMU No.1 - 3-way, 630-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Outdoor).
- **RMC** – RMU No. 2 - 2-way, 630-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Outdoor).

1.2.5 Tower Hospital.

- **SBE** – Main Substation – 3 - Panel, 11-kV, 630-Amp Oil Insulated / Oil Switchgear. (Reyrolle Parsons) (Indoor SB).
- **BTA** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **MSB** – Mini-Substation No.1 (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).
- **MSB** – Mini-Substation No. 2 (Outdoor Type) – 400 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).
- **MSB** – Mini-Substation No. 3 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).
- **MSB** – Mini-Substation No. 4 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (Transformer (Oil filled) & RMU (Oil filled)).
- **MSB** – Mini-Substation No. 5 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).
- **MSB** – Mini-Substation No. 6 (Outdoor Type) – 400 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).

1.2.6 SS Gida Hospital.

- **TRC** – Substation Transformer No.1 – 500-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **RMC** – Substation RMU - 2-way, 500-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Indoor). (**Oil Leaks reported**).
- **SSA** – Switch-house or Transformer Room larger than 20m².

1.2.7 Bedford Hospital.

- **MSB** – Mini-Substation No. 1 (Indoor) – 315 - kVA, 11000/400-V & 3-Way RMU. (Actom Transformer (Oil filled) & Actom RMU (Oil filled)).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **MSB** – Mini-Substation No. 2 (Outdoor) – 500 - kVA, 11000/400-V & 3-Way RMU. (Actom Transformer) (Oil filled) & Actom RMU (Oil filled)).

1.2.8 Cathcart Hospital.

- **MSB** – Mini-Substation No.1 (Indoor) – 200 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power Distribution RMU (Oil filled)).
- **SSA** – Switch-house or Transformer Room larger than 20m².
- **MSB** – Mini-Substation No. 2 (Outdoor) – 315 - kVA, 11000/400-V & 3-Way RMU. (Actom Transformer) (Oil filled) & Actom RMU (Oil filled)). **(Oil leaks reported).**

1.2.9 Grey Hospital.

- **TRD** – Substation Transformer No.1 – 315-kVA, 11000/400-V. (Mandaul Transformers) (Indoor, Manual Tap, ONAN, Cable Boxes, Bolted Top).
- **TRC** – Substation Transformer No. 2 – 500-kVA, 11000/400-V. (Mandaul Transformers) (Indoor, Manual Tap, ONAN, Cable Boxes, Bolted Top).
- **RMD** – RMU No.1 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **RMD** – RMU No.2 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **RMD** – RMU No.3 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **RMD** – RMU No.4 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **SSB** – MV Switch-room. (Brick, 4mx2.67mx2.88mh).
- **SSB** – MV Transformer-room. (Brick, 4mx3.13mx2.9mh).
- **MSB** – Mini-Substation No. 1 (Outdoor) – 300 - kVA, 11000/400-V & 3-Way RMU. (English Electric Transformer (Oil filled) & RMU (Oil filled)).

1.2.10 Winterberg TB Hospital.

- **TRD** – Substation Transformer No.1 – 200-kVA, 11000/400-V. (Revive Transformers) (Indoor, Manual Tap, ONAN, MV and LV Bushings, Bolted Top).
- **SSB** – MV Switch-room/Transformer room. (Brick)

1.2.11 Empilweni Gompo CHC.

- **TRD** – Transformer No.1 – 200-kVA, 11000/400-V. (Actom) (Manual Tap, ONAN, MV Cable end boxes / LV Bushings, Bolted Top, Outdoor fenced).
- **RMC** – RMU No.1 – 2 - way, 12-kV, 630-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Cable end boxes, Outdoor fenced).

1.2.12 Nkqubela Hospital.

- **TRC** – Transformer No.1 – 500-kVA, 11000/400-V. (Sema) (Manual Tap, ONAN, MV Cable end boxes / LV Bushings, Bolted Top with Conservator tank, Indoor).
- **RMC** – RMU No.1 – 2 - way, 11-kV, 630-Amp Oil Insulated / Oil Switch RMU. (Reyrolle England) (Cable end boxes, Indoor).
- **SSB** – MV Switch-room/Transformer room. (Brick).

1.2.13 Willowvale Hospital.

- **TRD** – Substation Transformer No.1 – 200-kVA, 11000/400-V. (Desta Transformers) (Indoor, Manual Tap, ONAN, MV and LV Bushings, Bolted Top, no Conservator tank).
- **SSB** – MV Switch-room/Transformer room. (Brick).

1.2.14 Duncan Village CHC.

- **TRD** – Transformer No.1 – 300-kVA, 11000/400-V. (Brush) (Manual Tap, ONAN, MV and LV Bushings, Bolted Top with Conservator tank, Indoor).
- **RMC** – RMU No.1 – 2 - way, 11-kV, 630-Amp Oil Insulated / Oil Switch RMU. (Reyrolle Parsons) (Cable end boxes, Indoor).
- **RMC** – RMU No.2 – 2 - way, 11-kV, 400-Amp Oil Insulated / Oil Switch RMU. (Reyrolle Parsons) (Cable end boxes, Indoor).
- **RMC** – RMU No.3 – 2 - way, 11-kV, 400-Amp Oil Insulated / Oil Switch RMU. (Reyrolle Parsons) (Cable end boxes, Indoor).
- **SSA** – MV Switch-room/Transformer room. (Brick).

1.2.15 Fort Beaufort Hospital.

- **MSA** – Outdoor Mini-sub 315kVA, SF6, Internal RMU.
- **SSB** – Switch-house or Transformer Room smaller than 20m².
- **RMA** – Indoor, 3-Way Ring Main Unit, GIS (SF6), Vacuum Breaker.

1.2.16 Adelaide Hospital.

- **TRD** – Transformer No.1 – 300-kVA, 11000/400-V. (Brush) (Manual Tap, ONAN, MV and LV Bushings, Bolted Top with Conservator tank, Indoor).

2. SCOPE OF WORK AND METHODOLOGY.

(Including Maintenance Work Descriptors / Codes).

The Scope of Work and the Methodology for the Inspection, Testing, Repairs and Maintenance Work are detailed in this Section and are defined by unique five (5) digit Maintenance Work Descriptors / Codes as mentioned in Section 3 above and set out in this Section below.

The Initial Assessment Reports (**Asset Verification and Conditional Assessment Reports for MV Equipment**) for MV equipment at the various Hospitals and Health Facilities are attached as Annexure A.

This Contract shall include all MV equipment listed in the Initial Assessment Reports and detailed Section 3 above and in this Section as well as in Annexure B. (Summary of Assets Registers).

The Initial Assessment Reports (Annexure A) provide the nameplate information, photographs and the initial assessed condition of the equipment including certain recommendations. These reports are attached for information purposes only.

For contractual purposes, the Contract Data, this Technical Specification and Bill of Quantities take precedence.

The work shall be carried out in stages as described below and shall involve one (1), two (2) or more Site Maintenance Visits per installation.

At the First Maintenance Site visit, the Contractor shall re-assess the condition of the equipment and carry out the necessary Tests, Repairs and Maintenance as specified in the checklists in this Section, in order for the installations to operate reliably and safely.

The Contractor shall identify any further necessary Maintenance work during the First Site Maintenance visit and these recommendations shall be submitted on the First Site Maintenance Visit Report format. (Annexure C).

The Report formats are described in Section 5 and Annexure C of this Specification.

As described in Section 5 below, the First Site Visit Report shall confirm the Work which was carried out on the First Site Maintenance visit and recommend any further work which should be carried out on the Second or subsequent Site visits.

Any work to be carried out on the Second and/or Third Site Maintenance visits shall be based on the First Site Visit Report which the Contractor shall submit to the Project Manager for approval before any further work is undertaken.

All workmanship shall be of the highest standard and in compliance with the relevant Standards and the Standard Specifications which are dealt with in Section 8. These Standards and Specifications include the ECDOH Standard and Supplementary Specifications Part C3.1a and C3.1b.

The work shall, at all times, conform to the OHS ACT and Regulations framed thereunder, the relevant SANS, IEC, NRS and the Eskom specification for Maintenance on MV Equipment. The Contractor shall ensure that all operating shall conform with the provisions of the Operating Regulations for HV Equipment.

The unique MV Equipment Descriptors / Codes mentioned in Section 3 above, defined the First Three (3) Digits of the Descriptors / Codes.

This Section deals with the Repairs and Maintenance Work on the various types of Equipment and defines the Fourth (4) and Fifth (5) digits of the Descriptors / Codes for the Maintenance Work to be carried out under the Contract.

Before undertaking the Initial site visit, the Contractor is to familiarize himself/herself with the full inventory of equipment at the Hospital or Health Facility in question and the Work specified for the first visit.

The second and subsequent site Maintenance visits shall be based on the outcomes of the first site maintenance visits.

The Maintenance Work Descriptors / Codes define the Maintenance Work to be carried out and these are cross referenced to the Bill of Quantities.

THE AUTHORIZED OPERATOR SHALL BE PRESENT AT ALL TIMES WHILST REPAIRS OR MAINTENANCE IS CARRIED OUT ON LIVE/ENERGISED EQUIPMENT.

SAFETY IS PARAMOUNT - WHEN WORKING WITH LIVE EQUIPMENT CAUTION SHALL BE MAINTAINED AT ALL TIMES.

THE AUTHORIZED OPERATOR IS TO BE CONSULTED IF THERE IS ANY DOUBT WHETHER EQUIPMENT SHOULD BE ISOLATED AND EARTHED OR NOT BEFORE CERTAIN MAINTENANCE WORK IS COMMENCED.

- As mentioned in Section 3 above, the legend for the Maintenance Work Descriptors / Codes can be summarized as follows: -
- **The first two digits describe the MV equipment** – SB – Switch-board comprising 11-kV Panels, TR – Transformer, MS – Mini-sub, RM – Ring Main Unit, BT – BTU, SS – Switch-house or S/S etc.
- **The third digit is the equipment Type or size descriptor according to the description** – A, B, C. i.e. An A Type may be SF6 insulated which has a different Maintenance Check List to B which could be Oil insulated.
- **The fourth digit specifies which Maintenance Visit** - 1 – First Maintenance Visit, 2 – Second Maintenance Visit etc.
- **The fifth digit is the Maintenance procedure descriptor as defined below** – A, B, C. An A generally indicates an Indoor installation of the said equipment where B indicates an Outdoor Installation with a slightly different Check sheet.
- E.g. SBA1A will be the Maintenance Work to be carried out on the Switch-board categorized as Type A during the First Maintenance visit using Maintenance Procedure A as detailed below. All Descriptors / Codes are however uniquely defined in the Check sheets below.

2.1 Check Lists / Sheets for MV Repairs and Maintenance

(Including Definition of Descriptors / Codes) (Fourth and Fifth digits)

The Standard Check Lists / Sheets for the **First** Repairs and Maintenance Site Visits are as

follows: -

(These Check Sheets also form the basis for the **Reporting Format for the First Site Repairs and Maintenance Visit** as per **Annexure C**).

SBA1A – Indoor, Nine (9) or Ten (10) Panel Switch-board, GIS (SF6), Vacuum Breakers.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Remove rear panels and carry out Thermal Imaging / IR Scan of Cable ends, CT and VT enclosures.
- Brush down and wipe down entire switch-board with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to instrument panels.
- Record gas pressure on each panel and busbar enclosure.
- Check all busbar and earth selecting mechanisms.
- Trip Test three (3) random panels. (Where supply continuity can be assured). (To be carried out by Authorized Operator).
- Lubricate all exposed mechanisms.
- Check all exposed screws and bolts for tightness. (Ensure correct torque on bolts – Do not overtighten).
- Check Fibre Comms cable on feeder to substation 2B to establish possible fault.
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

SBB1A – Indoor, Five (5) Panel Switch-board, GIS (SF6), Vacuum Breakers.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Remove rear panels and carry out Thermal Imaging / IR Scan of Cable ends, CT and VT enclosures.
- Brush down and wipe down entire switch-board with a non-corrosive solvent such as paraffin

- Wipe down and apply Q20 to Instrument panels.
- Record gas pressure on each panel and busbar enclosure.
- Check all busbar and earth selecting mechanisms.
- Trip Test three (3) random panels. (Where supply continuity can be assured). (To be carried out by Authorized Operator).
- Lubricate all exposed mechanisms.
- Check all exposed screws and bolts for tightness. (Ensure correct torque on bolts – Do not overtighten).
- Check any inter-trips.
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

SBC1A – Indoor, Six (6) Panel Switch-board, Resin encapsulated / Air, Air Break CB Technology.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Remove rear panels and carry out Thermal Imaging / IR Scan of Cable ends, CT and VT enclosures.
- Wipe down and clean all Heat Shrink Terminations.
- Brush down and wipe down entire switch-board with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to Instrument panels.
- Check all busbar and earth selecting mechanisms.
- Trip Test two (2) random panels. (Where supply continuity can be assured). (To be carried out by Authorized Operator).
- Lubricate all exposed mechanisms.
- Check all exposed screws and bolts for tightness. (Ensure correct torque on bolts – Do not overtighten).
- Check any inter-trips.
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

SBD1A – Indoor, Three (3) Panel Switch-board, Oil insulated / Oil Breakers.

- Carry out Visual Inspection – Noting any defects or damage or oil leaks.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Carry out Thermal Imaging / IR Scan of Cable ends, CT and VT enclosures.
- Brush down and wipe down entire Switch-board with a non-corrosive solvent such as Paraffin
- Wipe down and apply Q20 to Instrument panels.
- Check all busbar and earth selecting mechanisms.
- Check oil levels and top-up if necessary.
- Trip Test Circuit breaker panel. (Where supply continuity can be assured). (To be carried out by Authorized Operator).
- Lubricate all exposed mechanisms.
- Check all exposed screws and bolts for tightness. (Ensure correct torque on bolts – Do not overtighten).
- Check any inter-trips.
- Identify existing spares and recommend additional spares requirements.
- Identify existing Manuals and recommend additional requirements.

RMA1A – Indoor, 3-Way Ring Main Unit, GIS (SF6), Vacuum Breaker.

- Carry out visual inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- RMU Thermal Imaging / IR Scanning of RMU Cable end boxes.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to the RMU Instrument Panels.
- Check tightness of all bolts on RMU.
- Check Gas (SF6) pressure.
- If gas (SF6) pressure is low – top-up as per manufacturers specifications.
- Test if gas pressure low alarm is working.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check opening and closing mechanism on switches and circuit breaker.

- Identify existing spares for transformer and RMU and recommend additional spares requirements.
- Identify existing manuals for transformer and RMU and recommend additional requirements.

RMB1A – Indoor, 4-Way Ring Main Unit, GIS (SF6), Vacuum Breaker.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- RMU Thermal Imaging / IR Scanning of RMU and cable end boxes.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to the RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check gas (SF6) pressure.
- If gas (SF6) pressure is low – top-up as per manufacturers specifications.
- Test if gas pressure low alarm is working.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check opening and closing mechanism on switches and circuit breaker.
- Identify existing spares for transformer and RMU and recommend additional spares requirements.
- Identify existing manuals for transformer and RMU and recommend additional requirements.

RMC1A – Indoor, 2-Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- RMU Thermal Imaging / IR Scanning of RMU and cable end boxes.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to the RMU Instrument Panels.
- Check tightness of all bolts on RMU.

- Check oil levels and top - up if necessary.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check opening and closing mechanism on switches and circuit breaker.
- Identify existing spares for transformer and RMU and recommend additional spares requirements.
- Identify existing manuals for transformer and RMU and recommend additional requirements.

RMD1A – Indoor, 3 or 4 - Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.

- Carry out visual inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- RMU Thermal Imaging / IR Scanning of RMU and cable end boxes.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to the RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top - up if necessary.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to RMU Instrument Panels.
- Check tightness of all bolts on RMU.
- Check opening and closing mechanism on switches and circuit breaker.
- Identify existing spares for transformer and RMU and recommend additional spares requirements.
- Identify existing manuals for transformer and RMU and recommend additional requirements.

RME1A – Indoor, 3 or 4 - Way Ring Main Unit, Air insulated / Air Break.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- RMU Thermal Imaging / IR Scanning of RMU and Cable end boxes.

- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to the RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as Paraffin
- Wipe down and apply Q20 to RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check opening and closing mechanism on switches and circuit breaker.
- Identify existing spares for transformer and RMU and recommend additional spares requirements.
- Identify existing manuals for transformer and RMU and recommend additional requirements.

RMC1B – Outdoor, 2-Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- RMU Thermal Imaging / IR Scanning of RMU and Cable end boxes.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Clear all vegetation under and around RMU.
- Confirm whether RMU needs painting or not.
- Wipe down and apply Dow Corning Compound to bushings.
- Wipe down and apply Q20 to the RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top - up if necessary.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to RMU Instrument Panels.
- Check tightness of all bolts on RMU.
- Check opening and closing mechanism on switches and circuit breaker.
- Identify existing spares for transformer and RMU and recommend additional spares requirements.
- Identify existing manuals for transformer and RMU and recommend additional requirements.

RMD1B – Outdoor, 3 or 4 - Way Ring Main Unit, Oil Switches and Oil / Fused Breaker.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- RMU Thermal Imaging / IR Scanning of RMU and Cable end boxes and/or Bushings.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Clear all vegetation under and around RMU.
- Confirm whether RMU needs painting or not.
- Wipe down and apply Dow Corning Compound to bushings.
- Wipe down and apply Q20 to the RMU Instrument Panels.
- Check tightness of all bolts on RMU. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top - up if necessary.
- Brush down and wipe down exterior of RMU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to RMU Instrument Panels.
- Check tightness of all bolts on RMU.
- Check opening and closing mechanism on switches and circuit breaker.
- Identify existing spares for transformer and RMU and recommend additional spares requirements.
- Identify existing manuals for transformer and RMU and recommend additional requirements.

TRA1A – Indoor, Large Transformer Larger than 1-MVA and smaller than 2-MVA, Oil filled, OLTC.

- Carry out Visual Inspection – Noting any defects or damage or oil leaks.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Thermal Imaging / IR Scanning of transformer, bushings and cable end boxes.
- Brush down and wipe down exterior of transformer with a non-corrosive solvent such as paraffin
- Wipe down bushings and apply Dow Corning Compound.
- Wipe down and apply Q20 to the Buchholtz and temperature instrument panels.
- Check tightness of all bolts especially near oil leaks. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top up if necessary.

- Check if transformer oil is discoloured and in bad condition - If yes recommend urgent replacing or in –situ filtration of oil.
- Take oil samples for standard oil analysis and dissolved gas analysis.
- Check and replace silica gel.
- Test oil temperature and Buchholtz alarm functions.
- Install standard / approved locks on tap changers. (If applicable).
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

TRB1A – Indoor, Large Transformer, Larger than 2-MVA, Resin, OLTC.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Thermal Imaging / IR Scanning of Transformer, bushings and cable end boxes.
- Brush down and wipe down exterior of Transformer with a non-corrosive solvent such as paraffin
- Wipe down bushings and apply Dow Corning Compound.
- Wipe down and apply Q20 to temperature instrument panels.
- Check tightness of all bolts. (Ensure correct torque on bolts – Do not overtighten).
- Check for any evidence of resin insulation deterioration.
- Test temperature alarm functions.
- Install standard / approved locks on tap changers. (If applicable).
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

TRC1A – Indoor, Transformer 500 up to 800-kVA, ONAN, with Buchholtz.

- Carry out Visual Inspection – Noting any defects or damage or oil leaks.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Thermal Imaging / IR Scanning of Transformer, bushings and cable end boxes.

- Brush down and wipe down exterior of transformer with a non-corrosive solvent such as paraffin
- Wipe down bushings and apply Dow Corning Compound.
- Wipe down and apply Q20 to the Buchholtz and temperature instrument panels.
- Check tightness of all bolts especially near oil leaks. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top up if necessary.
- Check if transformer oil is discoloured and in bad condition - If yes recommend urgent replacing or in –situ filtration of oil.
- Take oil samples for standard oil analysis and dissolved gas analysis.
- Check and replace silica gel.
- Test oil temperature and Buchholtz alarm functions.
- Install standard / approved locks on tap changers. (If applicable).
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

TRD1A – Indoor, Distribution Transformer smaller than 500-kVA, ONAN, no Buchholtz.

- Carry out Visual Inspection – Noting any defects or damage or oil leaks.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Thermal Imaging / IR Scanning of Transformer, bushings and cable end boxes.
- Brush down and wipe down exterior of transformer with a non-corrosive solvent such as paraffin
- Wipe down bushings and apply Dow Corning Compound.
- Wipe down and apply Q20 to the temperature instrument panels.
- Check tightness of all bolts especially near oil leaks. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top up if necessary.
- Check if transformer oil is discoloured and in bad condition - If yes recommend urgent replacing or in –situ filtration of oil.
- Take oil samples for standard oil analysis and dissolved gas analysis.
- Check and replace silica gel.
- Test oil temperature alarm functions.

- Install standard / approved locks on tap changers. (If applicable).
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

TRD1B – Outdoor, Distribution Transformer smaller than 500-kVA, ONAN, no Buchholtz.

- Carry out Visual Inspection – Noting any defects or damage or oil leaks.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Thermal Imaging / IR Scanning of Transformer, bushings and cable end boxes.
- Brush down and wipe down exterior of transformer with a non-corrosive solvent such as paraffin
- Determine whether transformer needs painting or not.
- Clear all excess vegetation from under and around transformer.
- Wipe down bushings and apply Dow Corning Compound.
- Wipe down and apply Q20 to the temperature instrument panels.
- Check tightness of all bolts especially near oil leaks. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top up if necessary.
- Check if transformer oil is discoloured and in bad condition - If yes recommend urgent replacing or in-situ filtration of oil.
- Take oil samples for standard oil analysis and dissolved gas analysis.
- Check and replace silica gel.
- Test oil temperature alarm functions.
- Install standard / approved Locks on tap changers. (If applicable).
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

MSA1A – Outdoor Mini-sub 500-kVA or smaller, SF6, Integral RMU.

- Carry out Visual Inspection – Noting any defects or damage.
- Check all labelling.
- Check all earths for continuity and secure connections.

- Thermal Imaging / IR Scanning of mini-sub transformer and RMU bushings and/or cable end boxes.
- Clear vegetation in and around mini-sub.
- Confirm whether mini-sub requires painting or not.
- Brush down and wipe down exterior of mini-sub, transformer and RMU with a non-corrosive solvent such as paraffin.
- Wipe down bushings and apply Dow Corning Compound.
- Wipe down and apply Q20 to the temperature instrument panels and LV DB.
- Check tightness of all bolts. (Ensure correct torque on bolts – Do not overtighten).
- Check SF6 gas pressures – If pressure is low re-gas as per manufacturers specifications.
- Test temperature alarm functions.
- Install standard / approved locks on tap changers.
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

MSB1A – Outdoor Mini-sub 500-kVA or smaller, Oil filled, Integral RMU.

- Carry out Visual Inspection – Noting any defects or damage or oil leaks.
- Check all labelling.
- Check all Earths for continuity and secure connections.
- Thermal Imaging / IR Scanning of Transformer, RMU, bushings and cable end boxes.
- Clear vegetation in and around mini-sub.
- Determine whether mini-sub requires painting or not.
- Brush down and wipe down exterior of mini-sub, Transformer and RMU with a non-corrosive solvent such as paraffin.
- Wipe down bushings and apply Dow Corning Compound.
- Wipe down and apply Q20 to the Temperature Instrument panels and LV DB.
- Check tightness of all bolts especially near oil leaks. (Ensure correct torque on bolts – Do not overtighten).
- Check oil levels and top up if necessary.
- Check if transformer oil is discoloured and in bad condition - If yes recommend urgent replacing or in-situ filtration of oil.
- Take oil samples for standard oil analysis and dissolved gas analysis.
- Check and replace silica gel.

- Test oil temperature alarm functions.
- Install standard / approved Locks on tap changers.
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

BT1A – Standard Free standing BTU with Ni-Cad batteries.

- Carry out Visual Inspection – Noting any defects or damage or leaks.
- Check all labelling.
- Check all Earths for Continuity and secure connections.
- Brush down and wipe down exterior and interior of BTU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to Instrument panel.
- Spray clean batteries with Q20 and check terminals for corrosion and tightness.
- Apply grease to terminals.
- Check condition of NiCad batteries.
- Check battery voltage and carry out draw-down test.
- Check and clean charger section and spray with Q20.
- Check charging rate.
- Identify existing spares and recommend additional spares requirements.
- Identify existing manuals and recommend additional requirements.

BT2A – Standard Free standing BTU with Lead Acid batteries.

- Carry out Visual Inspection – Noting any defects or damage or leaks.
- Check all labelling.
- Check all earths for continuity and secure connections.
- Brush down and wipe down exterior and interior of BTU with a non-corrosive solvent such as paraffin
- Wipe down and apply Q20 to instrument panel.
- Spray clean Batteries with Q20 and check terminals for corrosion and tightness.
- Apply grease to terminals.
- Check Electrolyte levels and top-up where necessary as per manufacturers specifications.
- Check battery voltage and carry out draw-down test.
- Check and clean charger section and spray with Q20.

- Check charging rate.
- Identify existing spares and recommend additional spares requirements.
- Identify existing Manuals and recommend additional requirements.

SSA1A – Switch-house or Transformer Room smaller than 20m².

- Sweep out and clean switch-room.
- Remove items stored on floor.
- Replace covers over cable trenches.
- Service fire extinguishers.
- Check condition of floor, walls and doors.
- Are safety warning signs in place?
- Check lighting.
- Check ventilation.
- Is space adequate?
- Is emergency (push-bar exit) available?
- Is oil drainage provided?
- Is there any sign of vermin?
- Is a single line diagram (SLD) of the MV Installation displayed?

SSB1A – Switch-house or Transformer Room larger than 20m².

- Sweep out and clean switch-room.
- Remove items stored on floor.
- Replace covers over cable trenches.
- Service fire extinguishers.
- Check condition of floor, walls and doors.
- Are Safety warning signs in place?
- Check lighting.
- Check ventilation.
- Is space adequate?
- Is emergency (push-bar exit) available?
- Is oil drainage provided?
- Is there any sign of vermin?
- Is a single line diagram (SLD) of the MV Installation displayed?

The above check lists /sheets shall be applied to the MV Equipment at each Hospital or Health Facility as follows: -

TERTIARY HOSPITALS

2.1.1 Cecilia Makhiwane Hospital.

- **SBA1A** – Main Switch-board - 11-kV, 800-Amp – Ten (10) Panel Switch-board, SF6 Gas Insulated, Vacuum Breakers (Actom).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **BTB1A** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **TRA1A** – Main Substation Step – Up Transformers No.1 – 1250-kVA, 400/11000-V. (Power Tech) (Indoor, Manual Tap).
- **TRA1A** – Main Substation Step – Up Transformers No.2 – 1250-kVA, 400/11000-V. (Power Tech) (Indoor, Manual Tap).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **TRD1A** – Main Substation Local Transformer 1. – 100-kVA, 11000/400-V. (Power Tech) (Indoor, Manual Tap).
- **SSA1A** – Switch-house or Transformer Room smaller than 20m².
- **SBA1A** – 11-kV, 800-Amp – Nine (9) Panel Substation 2B Switch-board, SF6 Gas Insulated, Vacuum Breakers (Actom).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **BTB1A** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **TRA1A** – Substation 2B Transformers No.1 – 1600-kVA, 11000/400-V. (Alstom) (Indoor, Manual Tap).
- **TRA1A** – Substation 2B Transformers No.2 – 1600-kVA, 11000/400-V. (Alstom) (Indoor, Manual Tap).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **SBB1A** – 11-kV, 800-Amp – Five (5) Panel Substation 4C Switch-board, SF6 Gas Insulated, Vacuum Breakers (Actom).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **BTB1A** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **TRB1A** – Substation 4C Transformers No1 – 2500-kVA, 11000/400-V. (TCM Transformers) (Indoor, Manual Tap, Cast Resin Insulated, Totally Enclosed).
- **TRB1A** – Substation 4C Transformers No2 – 2500-kVA, 11000/400-V. (TCM Transformers) (Indoor, Manual Tap, Cast Resin Insulated, Totally Enclosed).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **MSB1A** – Mini-Substation Middee 2 (Outdoor) – 400-kVA, 11000/400-V & 3-Way RMU (Power Engineering & English Electric RMU).

- **MSB1A** – Mini-Substation Middee 3 (Outdoor) – 500-kVA, 11000/400-V & 3-Way RMU (Trend Technology & English Electric RMU).
- **MSB1A** – Mini-Substation Middee 4 (Outdoor) – Unknown - kVA, 11000/400-V & 3-Way RMU (GEC Power Engineering & GEC Power Engineering RMU).
- **MSB1A** – Mini-Substation 7 (Outdoor) – Unknown - kVA, 11000/400-V & 3-Way RMU (Unknown Not accessible).
- **MSB1A** – Mini-Substation 8 (Outdoor) – Unknown - kVA, 11000/400-V & 3-Way RMU (Hawker Siddeley / Tiger RMU). Not accessible – Could not open locks.

2.1.2 Frere Hospital.

- **SBC1A** – Main Switch-board (Cheltenham) - 11-kV, 630-Amp – Six (6) Panel Switch-board, Air Insulated, Air Blast/Oil/Vacuum Breakers (Eaton).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **BTB1A** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **TRC1A** – Main Substation (Cheltenham) Transformer No.1 – 500-kVA, 11000/400-V. (Power Engineering) (Indoor, Manual Tap).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **TRC1A** – Substation D Block Transformer No.1 – 630-kVA, 11000/400-V. (Free State Transformers) (Indoor, Manual Tap).
- **RMA1A** – Substation D Block 3-way, 630-Amp SF6 Switch/BKR RMU. (Schneider) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **TRD1B** – NTB – C Side Substation (Outdoor). Transformer No.1 – 300-kVA, 11000/400-V. (Power Engineering) (Outdoor, Manual Tap).
- **RMA1A** – NTB C Side Substation (Outdoor) RMU, 11-kV, 630-Amps, SF6 (ABB) (Outdoor).
- **TRD1A** – Maternity Substation Transformer No.1 – 315-kVA, 11000/400-V. (Power Technology) (Indoor, Manual Tap).
- **RME1A** – Maternity Substation 3-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **TRD1A** – NTB B Side Transformer No1 – 300-kVA, 11000/400-V. (Power Engineering) (Indoor, Manual Tap).

- **RME1A** – NTB B Side 4-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **TRD1A** – J Block Transformer No1 – 315-kVA, 11000/400-V. (BBT) (Indoor, Manual Tap).
- **RME1A** – J Block 3-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **TRC1A** – Laundry Transformer No.1 – 500-kVA, 11000/400-V. (Power Engineering) (Indoor, Manual Tap).
- **RME1A** – Laundry 3-way, 630-Amp Air Insulated / Air break RMU. (Eaton) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **BTB1A** – Laundry Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).

DISTRICT HOSPITALS AND CHCs.

2.1.3 Bhisho Hospital.

- **TRC1A** – Substation No.1 - Transformer No.1 – 800-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **TRD1A** – Substation No.1 - Transformer No.2 – 315-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **RMD1A** – Substation No1 - 4-way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Engineering) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **TRC1A** – Substation No.2 - Transformer No.1 – 500-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **TRD1A** – Substation No.2 - Transformer No.2 – 315-kVA, 11000/400-V. (Hawker Siddeley) (Indoor, Manual Tap).
- **RMD1A** – Substation No.2 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Engineering) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20².
- **MSB1A** – Mini-Substation No.1 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (Hawker Siddeley Transformer (Oil filled) & Hawker Siddeley/Tiger RMU (Oil filled)).

2.1.4 Victoria Hospital.

- **RMA1A** – Main Substation RMU - 3-way, 630-Amp SF6 Switch / Vacuum BKR RMU. (Alstom) (Indoor).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **MSB1A** – Mini-Substation A (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB1A** – Mini-Substation B (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (No Access).
- **MSB1A** – Mini-Substation C (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB1A** – Mini-Substation D (Outdoor Type) – 100 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB1A** – Mini-Substation E (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB1A** – Mini-Substation F (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (ECC of SA Vereeniging Transformer (Oil filled) & GEC Alstom RMU (Oil filled)).
- **MSB1A** – Mini-Substation G (Outdoor Type) – NOT IN USE.
- **RMD1B** – RMU No.1 - 3-way, 630-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Outdoor).
- **RMC1B** – Substation No.2 - 2-way, 630-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Outdoor).

2.1.5 Tower Hospital.

- **SBD1B** – Main Substation – 3 - Panel, 11-kV, 630-Amp Oil Insulated / Oil Switchgear. (Reyrolle Parsons) (Indoor SB).
- **BTB1A** – Battery Tripping Unit, 110-V DC – (Static Power). (Free standing).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **MSB1A** – Mini-Substation No.1 (Outdoor Type) – 200 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).
- **MSB1A** – Mini-Substation No.2 (Outdoor Type) – 400 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).
- **MSB1A** – Mini-Substation No.3 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).

- **MSB1A** – Mini-Substation No.4 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (XXX Transformer (Oil filled) & RMU (Oil filled)). **(Could not Open doors)**.
- **MSB1A** – Mini-Substation No.5 (Outdoor Type) – 315 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).
- **MSB1A** – Mini-Substation No.6 (Outdoor Type) – 400 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power RMU (Oil filled)).

2.1.6 SS Gida Hospital.

- **TRC1A** – Substation Transformer No.1 – 500-kVA, 11000/400-V. (Hawker Siddeley (Indoor, Manual Tap).
- **RMC1A** – Substation RMU - 2-way, 500-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Indoor). **(Oil Leaks reported)**.
- **SSB1A** – Switch-house or Transformer Room larger than 20m².

2.1.7 Bedford Hospital.

- **MSB1A** – Mini-Substation No.1 (Indoor) – 315 - kVA, 11000/400-V & 3-Way RMU. (Actom Transformer (Oil filled) & Actom RMU (Oil filled)).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **MSB1A** – Mini-Substation No.2 (Outdoor) – 500 - kVA, 11000/400-V & 3-Way RMU. (Actom Transformer (Oil filled) & Actom RMU (Oil filled)).

2.1.8 Cathcart Hospital.

- **MSBB1A** – Mini-Substation No.1 (Indoor) – 200 - kVA, 11000/400-V & 3-Way RMU. (Power Engineering Transformer (Oil filled) & GEC Power Distribution RMU (Oil filled)).
- **SSB1A** – Switch-house or Transformer Room larger than 20m².
- **MSB1A** – Mini-Substation No.2 (Outdoor) – 315 - kVA, 11000/400-V & 3-Way RMU. (Actom Transformer (Oil filled) & Actom RMU (Oil filled)). **(Oil leaks reported)**.

2.1.9 Grey Hospital.

- **TRD1A** – Substation Transformer No.1 – 315-kVA, 11000/400-V. (Mandaul Transformers) (Indoor, Manual Tap, ONAN, Cable Boxes, Bolted Top).
- **TRD1A** – Substation Transformer No.2 – 500-kVA, 11000/400-V. (Mandaul Transformers) (Indoor, Manual Tap, ONAN, Cable Boxes, Bolted Top).
- **RMD1A** – RMU No.1 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **RMD1A** – RMU No.2 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **RMD1A** – RMU No.3 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **RMD1A** – RMU No.4 – 3 - way, 630-Amp Oil Insulated / Oil Switch RMU. (GEC Power Distribution) (Indoor, Cable end boxes).
- **SSA1A** – MV Switch-room. (Brick, 4mx2.67mx2.88mh).
- **SSA1A** – MV Transformer-room. (Brick, 4mx3.13mx2.9mh).
- **MSB1A** – Mini-Substation No.1 (Outdoor) – 300 - kVA, 11000/400-V & 3-Way RMU. (English Electric Transformer (Oil filled) & RMU (Oil filled)).

2.1.10 Winterberg TB Hospital.

- **TRD1A** – Substation Transformer No.1 – 200-kVA, 11000/400-V. (Revive Transformers) (Indoor, Manual Tap, ONAN, MV and LV Bushings, Bolted Top).
- **SSA1A** – MV Switch-room/Transformer room. (Brick).

2.1.11 Empilweni Gompo CHC.

- **TRD1B** – Transformer No.1 – 200-kVA, 11000/400-V. (Actom) (Manual Tap, ONAN, MV Cable end boxes / LV Bushings, Bolted Top, Outdoor fenced).
- **RMC1B** – RMU No.1 – 2 - way, 12-kV, 630-Amp Oil Insulated / Oil Switch RMU. (Alstom) (Cable end boxes, Outdoor fenced).

2.1.12 Nkqubela Hospital.

- **TRC1A** – Transformer No.1 – 500-kVA, 11000/400-V. (Sema) (Manual Tap, ONAN, MV Cable end boxes / LV Bushings, Bolted Top with Conservator tank, Indoor).
- **RMC1A** – RMU No.1 – 2 - way, 11-kV, 630-Amp Oil Insulated / Oil Switch RMU. (Reyrolle England) (Cable end boxes, Indoor).
- **SSA1A** – MV Switch-room/Transformer room. (Brick).

2.1.13 Willowvale Hospital.

- **TRD1A** – Substation Transformer No.1 – 200-kVA, 11000/400-V. (Desta Transformers) (Indoor, Manual Tap, ONAN, MV and LV Bushings, Bolted Top, no Conservator tank).
- **SSA1A** – MV Switch-room/Transformer room. (Brick).

2.1.14 Duncan Village CHC.

- **TRD1A** – Transformer No.1 – 300-kVA, 11000/400-V. (Brush) (Manual Tap, ONAN, MV and LV Bushings, Bolted Top with Conservator tank, Indoor).
- **RMC1A** – RMU No.1 – 2 - way, 11-kV, 630-Amp Oil Insulated / Oil Switch RMU. (Reyrolle Parsons) (Cable end boxes, Indoor).
- **RMC1A** – RMU No.2 – 2 - way, 11-kV, 400-Amp Oil Insulated / Oil Switch RMU. (Reyrolle Parsons) (Cable end boxes, Indoor).
- **RMC1A** – RMU No.3 – 2 - way, 11-kV, 400-Amp Oil Insulated / Oil Switch RMU. (Reyrolle Parsons) (Cable end boxes, Indoor).
- **SSB1A** – MV Switch-room/Transformer room. (Brick).

2.1.15 Hospitals and Health Facilities which do not have any MV Equipment belonging to

the ECDOH.

- Butterworth Hospital.
- Fort Grey TB Clinic.
- Newhaven Hospital.
- Ngqamakwe Health Centre.
- Tafalofefe Hospital.
- Middledrift CHC.
- Komga Hospital.
- Dimbaza CHC.
- Stutterheim Hospital.
- Madwaleni Hospital.
- Idutywa Village CHC.
- Xhora CHC.
- Mount Coke CHC.
- Nontyatyambo CHC.
- Adelaide Hospital.
- Fort Beaufort Hospital.
- Nompumelelo (Peddie) Hospital.

3. SUBMISSION OF FIRST SITE VISIT REPAIR, MAINTENANCE AND TEST REPORTS. (Refer to Annexure C).

The Check Lists / Sheets that are detailed in Section 2.1 above, form the basis of the First Site Visit Repairs and Maintenance **Reports** that are to be submitted to the Service Manager by the Contractor after every First Site Visit.

An example of the format for the First Site Visit Repairs and Maintenance Report is attached to this Specification in Annexure C. This will also enable the Contractor to price for this Item.

The First Site Repairs and Maintenance Visit Report shall be filled in clearly (black ink) without any ambiguity, confirming the Work which was carried out and recommending the Work still outstanding for the Second / Third Site Visit.

The full set of Reports (Annexure C) for all the Hospitals and Health Facilities, will be issued to the Contractor in a separate File.

The Contractor shall submit the results of Oil Tests to the Service Manager in the prescribed format, clearly stating the Hospital / Health Facility and the specific Equipment and date which the sample was taken from.

4. SUBMISSION OF SECOND OR SUBSEQUENT SITE VISIT REPAIR, MAINTENANCE AND TEST RPORTS.

In many cases a Second or Third Site Repairs and Maintenance visit will be necessary at any given ECDOH Hospital / Health Facility.

The First Site Repairs and Maintenance Visit Report shall confirm the Work which was carried out and recommend the Work still outstanding for the Second / Third Site Visit.

The Work which the Contractor recommends for the Second or subsequent Site Visits shall be approved in writing by the Service Manager before the Contractor shall proceed with any of the Work.

Because the Contractor assumes responsibility for the Reliable and Safe Operation of the Equipment for the Contract period of 36 months after his First Site Visit, the Contractor shall: -

- Prioritise Urgent Work which he shall prepare for in parallel with obtaining the authority from the Service Manager.
- Leave clearly filled in and dated stickers on the Equipment that has been serviced.
- Submit a proposed programme of Work for each installation for the 36 months period to the Service Manager.

5. INITIAL ASSESSMENT – ASSET VERIFICATION AND CONDITIONAL ASSESSMENT REPORTS. (Refer to Annexure A).

The above Reports are attached in Annexure A of this Specification.

The Initial Assessments were completed in July 2024 and serve as a basis for the First and Subsequent Site Repair and Maintenance Visits.

As previously mentioned, these Reports are for supplementary information only.

The Contractor shall comply with the provisions of the OHS Act, HV Operating Regulations, and provisions of this Project Specification, the ECDOH Standard Specifications and the relevant SANS, NRS, IEC Standard Specifications which are dealt with in more detail in Section 8 below.

6. STANDARD SPECIFICATIONS AND GENERAL SPECIFICATIONS.

The Contractor shall comply with this Project Specification and the Standard Specifications detailed below: -

- The Occupation Health and Safety Act 1993 and the provisions of the General and Electrical Machinery Regulations.
- The Standard HV Operating Regulations.
- The ECDOH Standard Specifications for General Maintenance and Repairs of Electrical and Mechanical Installations. (Referred to as Standard Specification Part C3.1a General Maintenance).
- The ECDOH Supplementary Technical Specifications for Repairs to Medium Voltage Installations. (Part C3.1b).
- NRS 089 – 3 – 1. Maintenance of Electrical Networks – Substations – Section 1 – General.

- NRS 089 – 3 – 2. Maintenance of Electrical Networks – Substations – Section 2 – Power Transformers, Circuit Breakers, Isolators and Instrument Transformers.
- NRS 089 – 3 – 3. Maintenance of Electrical Networks – Substations – Section 3 – Miniature Substations, Distribution Transformers and Electrical Enclosures.
- IEC 60300 – 3 – 14. Maintenance and Maintenance support.

The Contractor shall fully comply with the provisions of the above Standards and Regulations, especially as the Repairs and Maintenance Work is in many cases to be carried out on Live equipment and/or in close proximity to such equipment.

The provisions of the HV Operating Regulations in terms of Permits, Authorization in terms of Operating shall be strictly adhered to.

Notwithstanding the essential compliance with the above Standards and Regulations, the Contractor shall furthermore take full responsibility for any bad workmanship, incorrect procedures, incorrect materials or equipment and/or incorrect application which may result in damage or injury.

The Contractor is expected to apply good practice at all times and consult with the Project Manager should any doubt arise before undertaking the Work.

7. STAFF AND OPERATOR TRAINING.

Training of all Hospital and Health Facility maintenance staff shall be conducted by the contractor.

8. SPARES

The recommendations, in terms of spares, is part of the First Site Repairs and Maintenance Visit **Report**. The Contractor shall recommend the provision, purchase, re-location or refurbishing of Spares for the relevant equipment.

9. CONCLUSIONS AND RECOMMENDATIONS.

The success of this Project will in part be measured by various outcomes.

The Safety of Staff and Operators is paramount, the Safe and Reliable Operation of the Electrical MV Equipment during and after the 36-month period will be essential indicators.
Adherence to Time-frames and Cost estimates are also essential factors.

It is therefore required that regular Technical and Progress meetings be held, and that the Contractor is adequately represented at these meetings.

Just as importantly, good regular communication between Contractor and the Project Manager is essential, as no exceptions shall be made for non-compliance. Hence the requirement that the Contractor consults with the Project Manager or his representative when there is any doubt or any when any clarity is required.

ANNEXURE A.

INITIAL ASSESSMENT REPORTS.

ANNEXURE B

EXCEL SPREADSHEET - DESCRIPTION OF INSTALLATIONS / SUMMARY OF ASSETS.

ANNEXURE C

FORMAT FOR REPORTS ON SITE MAINTENANCE VISITS NO. 1.

Report Sheet for Site Maintenance Visit No.1.

Note – Completed means – Task completed according to Specifications, Codes of Practice and Manufacturers Specification. (State - Yes or No).

- **Carry out Visual Inspection – Noting any defects or damage.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Check all Labelling.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Check all Earths for continuity and secure Connections.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Remove rear panels and carry out Thermal Imaging / IR Scan of CT and VT enclosures.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Brush down and wipe down entire Switch-board with a non-corrosive solvent such as Paraffin**

Completed – Yes/No.

Comments / Recommendations for follow-up visits -

- **Wipe down and apply Q20 to Instrument panels.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Record Gas pressure on each Panel and Busbar enclosure.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Trip Test three (3) random Panels.** (Where Supply continuity can be assured). (To be carried out by Authorized Operator.

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Lubricate all exposed mechanisms.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Check all exposed screws and bolts for tightness.**

Completed – Yes/No.

Comments/ Recommendations for follow-up visits –

- **Check Fibre Comms cable on Feeder to Substation 2B to establish possible fault.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Identify existing spares and recommend additional spares requirements.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits –

- **Identify existing Manuals and recommend additional requirements.**

Completed – Yes/No.

Comments / Recommendations for follow-up visits -

Submitted by (Name/signature) _____ Date - __

ANNEXURE D

FORMAT FOR OIL TEST RESULT REPORTS.

ANNEXURE E

BILL OF QUANTITIES.



PART C3.1b

EASTERN CAPE DEPARTMENT OF HEALTH

STANDARD SPECIFICATION

FOR THE

GENERAL MAINTENANCE AND REPAIRS

OF

MEDIUM VOLTAGE (MV) EQUIPMENT

AT

VARIOUS HOSPITALS AND HEALTH FACILITIES IN

THE

BUFFALO CITY METROPOLITAN MUNICIPALITY AND

AMATHOLE DISTRICT

OF THE EASTERN CAPE PROVINCE

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STANDARD SPECIFICATION FOR THE GENERAL MAINTENANCE AND REPAIRS OF ELECTRICAL AND MECHANICAL INSTALLATIONS

GM 1 GENERAL

The successful Contractor will be responsible for, and is expected to, maintain all the plant and installations detailed in the Price List and the Inventory of Equipment attached to this Contract.

The intention of this comprehensive maintenance Contract is to assess the current mechanical and/or electrical condition of each asset, repair what is needed, and maintain all equipment included as part of the Contract, in such a manner that, except for normal wear and tear, their condition don't deteriorate during the initial Service Period of 24 (twenty-four) months. This initial Service Period is extendable by up to another 12 (twelve) months to give a total Contractual period of up to 36 (thirty-six) months. Any potential extension will however be subject to the Contractor meeting the applicable quality and performance requirements of this Contract during the first 24 (twenty-four) month period. Instruction to proceed with any work related to this Contract shall be authorized by means of a Task Order from the Service Manager.

As skills transfer are an integral part of this Contract the Employer's Operating and Maintenance staff will be responsible for all operating and daily inspections on the equipment, unless otherwise specified in the relevant asset specific Supplementary Specification and/or Relevant Price List.

The Contractor is required to provide pricing for the following items in the Contract as expanded on in this specification for each asset type and equipment quantity as covered by this Tender:

- Verify the Assets and update the Asset Inventory List that is provided with this Contract;
- Compile a Preliminary Maintenance Control Plan (Annexure I) to determine what routine servicing should take place on each type of equipment covered by the Contract, and at what frequency the services should take place during the Contract Period if this does not correlate to the Price List service frequency proposed by the Service Manager. With reference to the Price List and C3.1b Supplementary Specification requirements, the Contractor must submit an all-inclusive price and quantity of, for each Service Activity required. Service Activities may include Operations, Minor Services, Major Services or Statutory Inspections as detailed in the Supplementary Specification related to this bid as well as the Price List.
- Cost to do a full functionality test and condition assessment of all equipment and installations included in the Contract (after Contract award), and provide a priced key spare part pricelist for this equipment;
- Cost to provide a detailed Functional Condition Assessment Report based on the findings from the functionality test and condition assessment process.

It is to be noted that the aim of the maintenance Contract is NOT to replace random components at the beginning of the Contract in anticipation of a possible breakdown during the Service Period. Only known defects shall be repaired once approved by the Service Manager. It is the Contractor's responsibility to decide if he/she wants to visit each site and familiarize themselves with the actual condition of each installation before submitting a Tender, or to rely on the information as contained in the Inventory of Equipment that is attached to this Contract.

On-site Tender briefing meetings per Tender will be limited to one Health Facility on the list covered by the specific Tender, as directed by the Service Manager in the Tender Notice.

Maintenance of an installation shall be performed in accordance with the Medium Voltage Installation Specific **Service Information** which will include:

1. This Standard Specification for the General Maintenance and Repairs of Electrical and Mechanical Installations,
2. The Technical Specifications that may be applicable,
3. The Supplementary Specification for this Asset Type,
4. The Operating and Maintenance Manuals (where applicable) for this Asset Type,
5. Relevant Inspection Check sheets for this Asset Type,
6. The Maintenance Control Plan per Health Facility,
7. All relevant SANS Standards and Legislation that is referred to in the abovelisted documents, and
8. All relevant drawings forming part of this Contract.

The main mechanical and electrical sections of a facility with their subsections asset out in the Service Information and in the Price List will each be deemed "an installation". Maintenance, as specified, will be applicable to all these installations.

All Contractors are to undergo a once-off Contractor's induction process at one of ECDOH Health Facilities before being allowed to work at any of the sites. This induction shall cover the General Rules for Contractors on Site, the penalty system applicable to this Contract, as well as the minimum work quality standards for the work to be done on site.

Major equipment replacement, major upgrades and/or redesigned functionality will be handled outside of this Contract via a separate projects program, and are therefore not part of this Contract. The maintenance and repair work phase will run parallel to each other at the same time.

GM 2 MAINTENANCE REQUIREMENTS

GM 2.1 CALL CENTRE

A Call Centre has been established in East London for the reporting and logging of any defects and maintenance problems from all Health Facilities in the Eastern Cape Province. The aim of the Call Centre is to ensure that equipment at the Health Facilities are kept at a satisfactory operating level by attending to ad-hoc defects and maintenance problems within the shortest possible time. The Call Centre will not be involved with normal routine servicing or any refurbishment/replacement of the equipment.

The following procedures shall be followed in case a defect or failure must be resolved:

- i The Contractor will adhere to the Task Order and when completed, contact the Service Manager for formal approval and signing off, of the Task Order. The Engineering Representative will assist the Service Manager in verifying completed work.
- ii The Contractor is expected to be fully aware of his obligations in so far as this Contract is concerned and he shall attend to the maintenance procedure within the time limits specified for each class of maintenance procedure.

- iii The completed Task Order will be returned to the Service Manager, who will forward it to the Call Centre to log the completed Task Order into the system. When the completed Task Order is logged into the system the job will be closed.
- iv When a maintenance procedure cannot be completed within the specified downtime the Contractor should apply in writing to the Service Manager for an extension of time with reasons for the delay. This application should be submitted as soon as the details of the maintenance procedure and availability of spare parts are known.
- v The Call Centre Manager will submit a weekly response performance report to the Service Manager, who will make a decision on the implementation of penalties which will depend on the nature of each breakdown, as well as valid claims on delays received from the Contractor. The recorded report date and time as well as the recorded completion date and time will be regarded as sufficient and final proof for the proper administration of this aspect of the Contract.

GM 2.2 SERVICE MANAGER

Eastern Cape Department of Health's agent will be appointed as **Service Manager** (Project Manager) to manage and administrate all work and financial aspects related to this particular bid. He/she will be supported on the ground by an Engineering Representative to verify workmanship and compliance of completed activities to Contract requirements. The Service Manager will be responsible for the following:

1. Perform duties as per the NEC3 Term Services Contract Standard Clauses;
2. Ensure that either he/she, or the Facility Specific Site Representative, visit the Facility and compile reports on the status of the Facility infrastructure that forms part of this bid;
3. Liaise with the Call Centre and check on call outs;
4. Determine routine maintenance work to be done, and issue Task Orders for routine maintenance and repairs/refurbishment/upgrades (that was accepted by the Employer), to the relevant Contractor;
5. Consult and co-ordinate with the Program Lead Consulting Engineer as needed on specific maintenance aspects, designs and specifications to be done;
6. Assess the completed work for the assessment period, consider the payment applications lodged by the Contractor during this period, Certify the payment due, and issue a Payment Certificate for the accepted work as per the Standard Contract clauses;
7. Monitor the logging of regular maintenance work done;
8. Prepare reports on maintenance and repair work done;
9. Liaise with the hospital Site Representative regarding all work to be done on this asset type at the facility;
10. Liaise with management of the facility;
11. Obtain approvals from the Employer where required for

GM 2.3 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall maintain the complete installation as specified in the **Service Information** for the full Contract period subject to the agreed repairs and performance criteria.

Maintenance implies and shall include routine preventative maintenance on a schedule as approved by the Service Manager, corrective maintenance, as well as breakdown maintenance of all components of the specified installation.

The Contractor shall be responsible to perform all tasks as specified in this specification, subject to the requirements of the NEC3 Term Service Contract Standard Clauses. In addition, the Contractor must:

1. Record work done, performance indicators, defects identified and/or corrected, and spares used;
2. Obtain work done sign-off on site as well as from the Engineering Representative;
3. Submit completed Task Orders and invoices to the Service Manager;
4. Attend scheduled project meetings with the Service Manager.

The Contractor shall, as part of his maintenance responsibilities repair MV equipment inclusive of replacing faulty MV equipment components upon logging of a breakdown, within the down-time as defined in Paragraph GM 7, against the Tendered rates as provided for in the Price List, within the down-time as specified in the applicable Task Order. In the event of any repair item for which a rate is not available in the Price List, the agreed upon rates as specified in the Task Order will apply.

GM 2.4 TASK ORDERS

All works required to be done by the Contractor will be instructed by issuing of a **Task Order** by the **Service Manager**. No Works shall be conducted without a Task Order.

The Call Centre may issue breakdown and defects correction/repair Task Orders to the Contractor at any time during the Service Period, but they must all be copied to the Service Manager. The time for the completion of the Breakdown Task Order will be as per the allowable response times in Table 1 in Section GM 7.

If the exact nature and possible cost of rectifying a breakdown is not known when the Breakdown Task Order is issued to the Contractor, the task order will be issued with provisional information and costs estimates. The Contractor shall respond to such a Breakdown Task Order by traveling to the site to evaluate the breakdown (scope of repair work), estimate the realistic cost as well as downtime and provide feedback to the Service Manager to form the basis of the revised Task Order.

Should the Contractor not be able to complete the Breakdown Task Order within the agreed and approved time for completion, it shall be the Contractor's responsibility to obtain an extension of time from the Call Centre Manager. The written report shall clearly state the reasons for requiring the extension, as well as the actual extension period required.

Should the actual time for completion of the Breakdown Task Order exceed the agreed time allowed, including any extension of time, the Contractor shall be liable for damages at the rate stated in the Task Order.

The Service Manager will issue Task Orders for the routine maintenance services, and approved repair/upgrade work once the Maintenance Control Plan has been approved and updated with the relevant information from the Repair Schedule as per GM 3.

Routine maintenance, approved repairs and breakdown repairs will all be done parallel to each other on the equipment as per the Maintenance Control Plan and Call Centre priorities.

GM 2.5 FUNCTIONAL CONDITION ASSESSMENT

Immediately after handing over of the site, and having attended the Contractor's Induction Training Session, the Contractor shall start with a **detailed functional test and condition assessment process** of the specified installation/equipment at each Health Facility and **submit a detailed report** to the Service Manager regarding the functionality, performance and condition of the equipment. It is this Contract's intention that this task be completed within **two weeks** of each site handover to the Contractor, but the Service Manager will arrange and agree specific deliverable dates for each Health Facility with the Contractor in this regard as part of the Contractor's Maintenance Control Plan.

The following work shall be carried out during the time allowed for the execution of the Functional Condition Assessment:

1. **Verify the Asset Data** from the Asset Inventory List in C4.1, obtain the additional asset information that might be required for a specific piece of equipment, and update the Inventory of MV Electrical Equipment for each Hospital and Health Facility with make and model numbers, capacities and general condition, year of manufacture (age), additional equipment to be added to the list, and equipment to be deleted from the list (i.e. equipment not on site anymore), etc., as per the fields provided in the format provided by the Service Manager after Contract award.
2. **Prepare a clear A4 size line drawing** of the building/ward/room in which the plant is installed and show positions of the equipment schematically on this drawing. Also prepare a MV single line diagram of the primary and auxiliary equipment. Please provide basic information regarding the general condition of the room/facility/building where the asset is located (this will assist to provide information to the facility repair teams), next to.
3. One line drawing per location per Health Facility must be provided and can be hand drawn, provided that the drawing is clear, neat and all info is readable. Where applicable the position of the equipment in MV switch room must be shown (i.e. Transformers, RMU).
4. Record the number/name of each piece of equipment on the line drawing. If no name/number exists on the equipment itself, allocate a descriptive number (i.e. Transformer 1 – 500kVA) and mark this on the equipment with a black permanent marker pen. Reference shall be made to this ID number in the defects listed in the Repair Schedules for each item of equipment to identify the equipment accurately.
5. Verify what spare parts (if any) are available on site for the equipment covered by the Contract, as well as the condition there-off;

6. **Compile a Priced Spare Part List**, (based on the Contractor's cost price for the spares) for the relevant spare parts required for a repair of all the types of equipment listed in the Asset Inventory, and indicate on this list what spares should be kept in stock on site for use by the site maintenance staff. The Employer however retains the right to negotiate the offered spare part prices with like type spares prices solicited through the Tender process, if they are not in line with national price norms.
7. **Inspect the condition and test the functionality** of all components of the installation to confirm the extent of the repair work required (if any). If the equipment is not in an operable state record this and proceed with item 7 below;
8. **Verify if the equipment meets current standard technical specifications** for the specific application (**for example: a split system air conditioner may be functionally good and serviceable, but does not meet the criteria to operate inside an operating theatre or infection control area**). Advise on an alternative if applicable. Please consult the Facility Manager when doing the assessment to get information regarding any issues that they are experiencing with the equipment.
9. **Verify the estimated remaining service life** for the equipment based on the equipment's age and current condition. If the equipment is old and in a bad state it might be more cost effective to replace the unit rather than rebuilding it. Please advise in this regard;
10. Should it be impossible to determine the details of the defect without dismantling the machine/equipment item, the Contractor shall nevertheless prepare an estimate with a cost breakdown for repairs he/she anticipates will be needed. After a written instruction has been received to repair the machine/equipment item, the final cost will be determined after the machine/equipment item has been dismantled for repairs. **Equipment shall not be dismantled for inspections during the equipment functional condition assessment period.**
11. **Compile a detailed Repair Schedule for each separate equipment unit (machine)**. This Repair Schedule will consist out of a clear identification of the equipment unit, a detailed description of what is wrong with the equipment unit, a detailed repair or replacement method statement (and explanation on why it is recommended that the unit be replaced if applicable), and an accurate detailed quote, with estimated lead times and a high-level project plan to enable the work to proceed if the approval to do so is granted by the Service Manager via a Task Order. (See GM 2.8 for the rates requirements)
12. The Employer does not guarantee that any, or all, of the repairs/replacements recommended via the repair schedules, will be accepted for implementation by the Contractor. Accepted Repair Schedules will however become part of the Final Maintenance Control Plan once approved by the Employer, and will then be included in the work scheduled for this Contract. Depending on the cost and complexity, equipment replacement recommendations might be transferred to the Repair Project Work Stream of the Employer's Electrical Equipment Repair Programme.
13. **Compare the identified defects of each item of equipment with the components already included under the standard minor and major services scopes** in the Contract Price List, and remove costing for these from the repair requirements. Include all identified defects into the Functional Condition Assessment Report, but only price the defects not covered by the standard servicing scope of works. (See GM 3.2 (3) for costing of the standard services)

14. Where applicable, **obtain copies of Statutory Inspection and Test Reports** from the Health Facility (if available) and attach these to the Defects Inspection Report.
15. **Submit the detailed Functional Condition Assessment Report** to the Services Manager who shall thereafter demarcate any areas to be repaired and forward this information to the Contractor. Once approval is granted, the Service Manager will instruct the Contractor about the repair work to be done.

GM 2.6 FUNCTIONAL CONDITION ASSESSMENT REPORT

A Functional Condition Assessment Report must be compiled for each Health Facility, and shall contain the following:

1. The updated Asset Inventory List (both hard and electronic copies) completed in the Excel Format provided by the Service Manager after Contract Award;
2. Clear location identifiable layout line drawings of the equipment, with ID numbers and brief room/facility/building condition description as per GM 2.5 (2)
3. A list of spare parts, and their condition, that is currently available on site;
4. A priced spare part list of the typical spare parts that might be needed to do repairs on the equipment if it should breakdown or fail. The Contractor must also indicate on this spare part price list which consumable spare parts that can be replaced by the site maintenance staff, should be kept in stock at the Health Facility;
5. A summary of the equipment per Health Facility indicating:
 - i Condition;
 - ii If the equipment meets current technical specifications;
 - iii Estimated remaining Service life before replacement will be due; and
 - iv Recommended work to be done (i.e. service only, minor repairs required, major repairs required, replacement or upgrade recommended).
6. A Repair Schedule for each repair that is required. This information will be used to populate the Task Orders for accepted repairs, or feed the Tender document information in case it is moved to the Project Work Stream;
7. A description of the defect for which repair work is not easily identifiable with an estimate of the final cost for repairs. This item will typically apply to breakdowns or defects where the machine or equipment must be de-commissioned and at least partially dismantled before the extent of the work can be fully established;
8. Compile a list of equipment for which a Statutory Inspection and Test is, or will become due during the Contract period. Copies of previous Inspection and Test Certificates to be attached to the report (if available).

Should the Contractor not be able to complete the Functional Condition Assessment Report within the period as specified GM 2.5, it shall be his responsibility to obtain extension of the Functional Condition Assessment period from the Service Manager. The written report shall clearly state the reasons for the extension, as well as the actual extension required. An extension of time shall only be considered by the Service Manager if the Engineering Representative believes the Contractor has carried out the already completed portion of the report with the due diligence and attention to detail.

Should the actual time for the completion of the report exceed the specified time for completion, including any extension granted, the Contractor shall be liable to a payment reduction for the difference between actual and approved completion periods. The value of the payment reduction for each health facility shall be as specified in Section X18 of the Secondary Options Clauses of the Contract.

After the repair phase work and costs have been accepted, the Contractor shall commence with the known and approved repair work only after site access for repair work has been approved and the Task Order issued. The Contractor shall complete the work within the period allowed for the repair work as specified in the applicable Task Order.

GM 2.7. OPERATING AND MAINTENANCE MANUALS

The Contractor shall, where specified, and as part of the repairs to each installation, compile and submit a comprehensive Operating and Maintenance Manual based on the Original Equipment Manufacturer's requirements. The Contractor shall ensure through training that the operating and maintenance personnel of the Health Facility are conversant with the instructions as presented in the Operating and Maintenance Manual, as per SS 8 and SS 9.

The Operating and Maintenance Manual, as accepted by the Service Manager, shall be used as a basis for preventative maintenance. The Contractor shall perform all preventative and corrective maintenance as described in the Operating and Maintenance Manual. This shall be in accordance with the Standard and Supplementary Specifications.

The Operating and Maintenance manuals must be based on the updated Inventory of Equipment (C4.1) data after completion of the Functional Condition Assessment, and shall be updated with respect to Make, Model Number, Capacity and any other relevant data.

The Contractor must provide three (3) sets of each required Operating and Maintenance Manual as follows:

- i One set to be installed at a suitable position on a short chain, against a wall in the room/area where the equipment is located, or as otherwise instructed by the Service Manager for outside and spread out equipment;
- ii Two sets to the Services Manager.

The Operating and Maintenance Manuals must be delivered as soon as possible after the Functional Condition Assessment Report has been completed. Also see Section GM 3.3 (15).

Where several of the same equipment is in the same room/area, only one set of three Operating and Maintenance Manuals is required. If the same equipment is spread out throughout the health facility the Contractor must install one Operating and Maintenance Manual near each one, or group of the equipment unless otherwise instructed by the Service Manager. This does not apply to equipment like split air conditioners, etc. for which only one set of three Operating and Maintenance Manuals per make and model will be required. The Service manager will instruct the Contractor where to install the chained Operating and Maintenance Manual for equipment like air Transformers.

The Contractor will be required to install several Document Consoles (storage and writing platform units) with sleeve anchors or bolts, into the walls at different locations of each Health Facility, to secure and store the chained manuals and maintenance logs. A Provisional sum will be included for this in the Price List.

GM 2.8. RATES

Scheduled work is all planned routine servicing of the equipment at the all-inclusive Contracted Rates contained in Schedule 3 of the Contract. Unscheduled work is all repairs, breakdowns, special maintenance activities, special tests and/or replacement tasks that is ordered via a Task Order by the Service Manager, in addition to the scheduled work. Payment for this work will be based on the Contracted Rates from Schedule 4.

Where no rates exist in the Contract, the itemized breakdown shall be accompanied by documentary proof from the Supplier, Manufacturer, Engineering Works, etc., where materials were bought or services out-sourced from. The Employer however retains the right to verify and test these rates against the market.

The Contractor shall submit quotes for all Unscheduled work with an itemized breakdown of the total cost involved for acceptance by the Service Manager, in a quotation as detailed below:

GM 2.8.1 MATERIALS AND OUTSOURCED SERVICES

Unscheduled: List of all items with quantities and rates as per quotations or price lists obtained from suppliers or service providers (proven reasonable cost), and attach a copy of the quotation/price list to the quotation. Apply the Direct Fee Percentage (Mark-up %) to all proven reasonable material costs and outsourced services.

Direct Fee % (Mark-up %): Mark up percentage on proven cost to cover P's & G's, overheads, profit, etc. as per Schedule 4 based on NEC3 TSC Contract Data.

Scheduled: All materials required for Scheduled Servicing are included into the pricing for the Service as per Schedule 3.

GM 2.8.2 LABOUR

Unscheduled: List time required for travelling to and back from site (subject to conditions contained in GM 2.8.3 below), actual repair and/or replacement, testing and commissioning time of all unscheduled items at the applicable labour rates as stated in Schedule 4. No Direct Fee % will be applicable to Contracted labour rates.

Scheduled: Cost is included in Service costs as per Schedule 3.

GM 2.8.3 TRANSPORT AND ACCOMMODATION

Unscheduled:

Traveling and Accommodation claims will be subject to the condition contained in GM 2.8.4 below. Travelling cost will be as per the rates for reimbursable expenses published monthly by the National Department of Public Works applicable at the time of rendering the service/repair. Allow for the actual distance travelled (and specify the reason for the traveling). All travel time and disbursements need to be supported by a Google Maps route planner printout for proof of travelling distance and time. Kilometre claims can be claimed from point of departure to destination and back, but must be linked to the indicated kilometres as per the Google Map attached and referenced to. The Contractor must submit proof of registration to verify the engine cubic capacity of the vehicle, in respect of any vehicle to be claimed for. Allow for the actual accommodation and disbursements (and specify the reason for the accommodation requirement) at the rates as per Schedule 4. **Trips must be combined with Scheduled Servicing trips where possible, to minimize additional expenditure. Trips will be in accordance with the approved Maintenance Control Plan.**

GM 2.8.4 The Employer requires that the Contractor be based in a location inside the Cluster or District Area that the Contract is awarded for. The home base (departure point) must therefore be located inside the Cluster Area. If the Contractor does not have a home base in the Cluster Area, the traveling rates (for both distance and labour) will be calculated based on a location inside the Cluster which will typically be the largest Town or City located inside the Cluster or District, as may be applicable as instructed by the Service Manager.

GM 2.8.5 PROVISIONAL SUMS

It is the Employer's sole discretion to decide on spending any, all or none of the Provisional Amounts listed in the different Price List Schedules of this Contract.

GM 2.9 REPAIR WORK

GM 2.9.1 Definitions

1. Defect

For this maintenance Contract, a defect shall mean a deficiency in any component of an installation which impairs the functionality of that component or equipment. Worn parts of a component which do not impair the functionality and/or performance of the component will not be regarded as a defect.

Defects may be classified in the following three groups:

(i) Type B defect

Those deficiencies which can only be rectified by replacing parts of, or the complete component as in the case of a breakdown or where a certain amount of upgrading is necessary such as the provision of anti-vibration mountings, removal of rust and re-painting, etc.

(ii) Type C defect

Those deficiencies which are visible but which do not impair on the functionality of the installation or system yet, such as structural cracks in parts of a component, rust, bad workmanship during a previous Contract, etc.

Components in which abnormal noise and/or vibration is present shall be serviced in accordance with the Manufacturer's recommendations and if the noise and/or vibration persists, the deficiency will be classified as a defect.

2.Repairs

Repairs of an installation shall mean the elimination of the deficiencies classified as types B and C defects in Paragraph (1.) above.

The specific repair phase commences as indicated on the Task Order issued by the Service Manager for each approved repair. The repairs must be completed within the period as determined by the Task Completion Date as stated in the Task Order. Delay damages for late completion will be applicable as indicated on the Task Order.

Depending on the nature of the work and availability of funds access may be given at any time during the Service Period and not necessarily directly after site hand-over.

A representative of the user department or person in charge of the plant, system or building shall endorse the schedule after completion of the maintenance or servicing procedure to the effect that the maintenance or service is, to his opinion, completed satisfactorily and shall countersign the service schedule. Where necessary the Site Representative will inspect the work done and report his findings to the Service Manager.

GM 2.9.2 Scope of Repair Work

The repair work shall be completed within the time allowed for repairs for each installation as defined in the applicable Task Order. If the work is to be carried over two or more financial years', the work will be segmented and prioritized according to the Final Maintenance Plan. The Contractor will be informed of the work to be completed within each financial year. **The starting date for repair work for the current financial year will be the date of acceptance of the measured Price List from the Functional Condition Assessment Report.** The starting dates for subsequent years will be on 1 April of that particular year.

All repair work shall be executed using resources (labour, equipment materials and spare parts) that comply with the requirements of GM 2.11.

The said repair work shall be executed in accordance with the relevant codes of practice, standards, regulations, municipal laws and by-laws, manufacturers' specifications and codes of practice included in this specification.

GM 2.10 MAINTENANCE WORK

Maintenance work commences with the acceptance of the Tender bid and expires at the end of the Service Period. As compensation, the Contractor is paid the **remeasured** Contracted quantities, distributed in agreed intervals and amounts over the Service Period as per the Final Maintenance Control Plan, at the rate Contracted for the applicable maintenance work, subject to the requirements of GM 8.

GM 2.10.1 ROUTINE PREVENTATIVE MAINTENANCE

This entails the rendering of services and servicing of equipment according to a predetermined Maintenance Control Plan to:

- i Repair, lubricate, clean and service components of equipment, units or parts thereof for each installation at pre-scheduled intervals regardless of condition;
- ii Re-adjust, reset, clean, balance, corrosion protect all components of equipment, units or parts thereof for each installation, and
- iii Carry out all necessary and implied actions to maintain installations in a functional condition (i.e. replace or clean filters, replace or top up fluids, etc.)

Preventative maintenance shall be aimed at prevention or at least minimization of breakdowns.

GM 2.10.2 CORRECTIVE MAINTENANCE

This entails regular observation of the equipment, identifying impending breakdowns, maladjustment or anomalies of equipment, units or parts of installations and subsequent action to restore installations to a fully functional condition before a breakdown occurs.

The Maintenance Procedures for Corrective Maintenance shall be compiled by the Contractor and is included in the Maintenance Control Plan for each system or plant. Inspection items shall include, inter alia, the following:

Checking for:

- i Unusual noise and vibration;
- ii Abnormal surface temperature of machines such as electric motors;
- iii High temperatures of equipment and wiring inside switchboards;
- iv Incorrect settings or operation of safety devices;
- v Alarm conditions of any instrument or control panel;
- vi Gas or fluid leaks from the equipment or associated piping systems.

The frequency of corrective maintenance shall be determined by the Contractor himself in line with the recommendations from the Operating and Maintenance Manuals, and actual operational environment where the equipment is operating. This may vary from once every day for high-risk, sensitive installations to once a month for low-risk installations such as exhaust fans and office air conditioners. The frequency of corrective maintenance must be accepted by the

GM 2.10.3 BREAKDOWN MAINTENANCE

This entails repair and/or replacement of defective equipment, units or parts of installations following a breakdown that leaves the installation inoperable or unsafe, and subsequent action to restore the installation to their normal functional condition, within the maximum down-time allowed.

Breakdown repairs will be controlled via the Call Centre and approved Breakdown Repair Task Order process as per GM 2.1. A provisional amount will be included in the Contract Price List Schedules to cover Breakdown Task Order expenditure.

GM 2.10.4 COMMENCEMENT OF SERVICE PERIOD

The Contractor shall accept full maintenance responsibilities for each installation from the date on which the site has been handed over to the Contractor. **An annual maintenance service shall be carried out on all installations during the period in which the Defects Inspection Report is compiled, or as soon as possible thereafter.** If the current statutory compliance of a qualifying asset cannot be verified with the correct documentation of proof, a statutory inspection must be performed immediately after the first annual service has been completed.

For equipment or installations where the complete installation is shut down for the repair phase, no maintenance services will be required during the repair period.

GM 2.11 SUPPLY OF LABOUR, EQUIPMENT AND MATERIAL

1. Labour

Only competent, qualified personnel shall be allowed to execute all maintenance work.

2. Equipment

All tools, equipment and consumables required for performing maintenance work shall be supplied by the Contractor at his own cost (except where otherwise agreed to in writing and provided by the Employer). The Contractor may use already installed Employer equipment such as crawl beams and crawls, etc. provided that they obtain written approval from the site Maintenance/Technical Manager to do so. Such site approval will be based on the serviceability of the equipment, and upon confirmation of the Contractor's competency compliance in being able to use and operate this equipment during maintenance. Thermal imaging shall be one of the tools provided by the electrical contractor.

3. Materials and Parts

All materials, spare parts, components, equipment and appurtenances necessary for the complete maintenance of each installation shall be supplied and installed by the Contractor **at the rates and quantities as instructed by the Service Manager**, after the Functional Condition Assessment Report as specified in GM 2.5 has been accepted.

Only original parts as specified by the Original Equipment Manufacturer may be used for replacement purposes. Generic or alternative parts will only be allowed if they comply fully with all the specifications of the original parts, but may only be used upon written acceptance by the Service Manager.

Substitute electronic components will be acceptable, **PROVIDED** that they are equal to, and of the same quality as, or superior to, the original components and are accepted, in writing, by the Service Manager.

All parts, spares and materials which are used, shall conform to the applicable SANS Specifications and shall, where possible, carry the SANS mark of approval.

Substitute parts, as well as the serial numbers (where available) of the original and new components, shall be entered on the service sheets and in the maintenance/repair log-book.

The Contractor shall obtain, and cede any supplier's or factory guarantee of repaired or replaced components to the Employer. All workmanship, new equipment, materials, components, systems, etc. used for servicing and repairs shall be guaranteed for 12 months unless otherwise agreed to in writing with the Service Manager. The guarantee cards for repaired or replaced components or equipment shall also be attached to service sheets and the maintenance/repair log-book. New equipment and system installations will in addition to the above requirements also have a twelve (12) month defects liability period, valid from the date of successful commissioning and hand over to the Employer as acceptance by the Service Manager.

All scrapped and/or removed parts and equipment that might be installed elsewhere, or that will not be returned to service again, must remain on site after removal or disassembly of the equipment as they remain the property of the Employer. The Maintenance/Technical Manager of the facility will indicate to the Contractor where to place these items after removal. Removal of any parts and/or equipment for whatever reason from site, may only occur with the written approval to do so by the Maintenance/Technical Manager subject to the rules and regulations that the Employer has in this regard.

GM 2.12 SITE MAINTENANCE RECORD KEEPING

The Contractor shall provide and maintain hard-cover A4 size maintenance files for each installation for the duration of the Service Period. Copies of all schedules, checklists, breakdown reports, preventative maintenance records, component replacement records, service sheets, etc. shall be filed in these.

An A4 size register book shall be kept for all work performed on the equipment, to state the service technician's name, surname, date of work performed, and a short description of the work performed. This book must be installed on a short chain next to the relevant Operating and Maintenance Manual as per GM 2.7.

Copies of the site maintenance records and all service sheets, shall be submitted to the Service Manager at each monthly meeting, while copies of the service sheets must also accompany all claims and invoices.

Statutory Logbooks must be supplied and maintained on site for all statutory equipment such as transformers, MV switchgear, Battery Tripping Unit, and associated equipment.

GM 2.13 SERVICE SHEETS

Every service, repair, test, inspection, etc. related to the maintenance portion of the Contract, shall be fully described on a service sheet which must be completed and signed by the Contractor and attached to the Task Order when it is returned to the Service Manager. The following minimum information shall appear on service sheets:

1. The company name and address;
2. A unique work sheet serial number;
3. The corresponding Task Order unique number;
4. The district and health facility names;
5. The building/area name or alternatively the building/area code;
6. The plant identity code and description;
7. The nature of the call, i.e. P1, P2, P3 or P4 (see GM 7);
8. A general description of the problem or purpose of the work to be done, alternatively the complaint as received by the Call Centre;
9. A statement as to whether the individual system is operational or not in terms of the specification;
10. Should the system not be operational (in case of a breakdown) the response time and repair time shall be recorded individually and details of a preliminary service sheet shall be forwarded to the Call Centre Manager;
11. The description of the repairs/replacements carried out on each machine/equipment item on that specific system;
12. A list of materials used for each machine/component. Where scheduled items are used, only the description can be listed. For non-scheduled items, a copy of the quotation must be attached to the service sheet;
13. A detailed report on the extent of the work done together with the total cost involved;
14. Suggestions to avoid similar future problems;

15. A list of the Contractor's personnel responsible for the work with the date, starting time, completion time, distance travelled, and any accommodation and S&T costs;
16. Signature and name of the responsible Employer site technician/artisan/engineer and the Site Representative, confirming the work was completed to the required quality and performance standards, and that the equipment is operational again;
17. Signature and telephone number of the User of the equipment or the person who initiated a call or Task Order (if it was a defect, or breakdown).

Service sheets shall also be used for normal routine maintenance services and other non-maintenance activities such as training of the health facility's operating and maintenance personnel and administration duties of heads of firms when managing the Contract.

The Service sheets shall be completed in three categories as follows:

1. **For repairs on machines:** The same data as above must be captured with one service sheet to be completed for each repair (See below for grouping of like type equipment for servicing).
2. **For normal maintenance on an installation:** The same data as above must be captured with one service sheet to be completed for each service (See below for grouping of like type equipment for servicing).
3. **For Administration and Training:** In this case only the name of the Head of the Company is required on the service sheet with no other reference to Building- or Plant codes or machine ID numbers. A full description of the service provided must be included.

Copies of the completed Service Sheet and Task Orders must be attached to all invoices and shall be submitted to the Service Manager for discussions and acceptance.

An example of the Service Sheet is attached to the Contract Documentation as C7.

The standard requirement for normal services carried out on a specific plant is to complete one service sheet for all the equipment within any one building. This standard requirement applies to installations where all such machines can be serviced within a period of approximately five working days, but all equipment serviced must be listed on the service sheet.

For larger installations where the time required for a maintenance service is more than five working days, the machines may be grouped together to form several groups within the building with the provision that each group can be serviced within a period of approximately five working days. One service sheet shall be completed for each group in a building, but all equipment included in the group must be listed on the service sheet.

For smaller installations where the complete installation inside a building can be serviced in less than one working day, the installations in more than one building may be grouped together, but all the equipment covered by the service sheet must be listed.

The definition of the groups must be determined by the Contractor and clearly specified in the

GM 2.14 VOLTAGE SURGES DUE TO LIGHTNING AND OTHER CAUSES

The area in which most of the sites are situated is known for heavy lightning storms. Damage caused by voltage surges due to lightning, phase imbalance, low and high voltages, power failures, etc. will be dealt with in the same manner as any other breakdown. Contractors are advised to investigate available surge protection systems, if any, on each plant during the Functional Condition Assessment stage, and to decide for themselves whether additional protection will be required or not.

The provision of additional surge protection systems shall form part of the repair activities, if accepted by the Service Manager, and the cost thereof must be allowed for in the Functional Condition Assessment Report.

Contractors may as an alternative provide and install one or more Universal Disturbance Analyzers to record any voltage surges at their own cost. Breakdowns caused by voltage surges which can be proved beyond any doubt will be dealt with in the same manner as operational damage and other normal breakdowns.

GM 2.15 SHEQ: SAFETY, HEALTH, ENVIRONMENTAL AND QUALITY

The Contractor must comply with all the Safety, Health, Environmental and Quality requirements as per C3.2 and GM 3.1, and must provide pricing to cover all the applicable requirements under this specification. The Contractor must take note of any specific Safety, Health and/or Environmental risks that might be highlighted in section SS 13.

GM 3 MAINTENANCE CONTROL PLAN

The Contractor is responsible to compile a detailed Preliminary Maintenance Control Plan (Annexure I) as per GM 3.2 which he need to submit with his Tender Bid. This plan must contain the details of what maintenance will be done (itemized), how often, what resources will be involved, what spares and consumables will be used, how long it will take to perform the work, and the cost breakdown per service for a specific Asset Type. The Service Manager gave service interval recommendations in Schedule 3, but the Contractor can recommend alternative intervals for consideration and approval by the Service Manager.

After Contract Award the Contractor will be required to expand the Preliminary Maintenance Control Plan to a Health Facility specific plan for each asset type with the assistance of the Service Manager.

GM 3.1 WORK QUALITY

Maintenance quality control shall be the responsibility of the Contractor who shall introduce a Maintenance Control Plan to assist him in ensuring that all preventative, corrective and breakdown maintenance is performed as described in the Service Information. The Contractor will be responsible to correct any sub-standard work that is discovered after the Contractor has done his work. The rework will be for the Contractor's own account and must be signed off by the Site Representative after completion.

If the Contractor fails to remedy any sub-standard work within the time frame stipulated by the Service Manager, the Service Manager may at his/her discretion appoint another Contractor to execute the repair work. In this case, the replacement Contractor will be paid with the funds that were earmarked for the first Contractor to do the work, and the first Contractor will not be paid for that specific work.

GM 3.2 PRELIMINARY MAINTENANCE CONTROL PLAN

A preliminary version of the Maintenance Control Plan, based on the Asset Inventory Data, must be submitted with the Contractor's Tender bid. This plan is a high-level plan on what maintenance tasks the Contractor will be performing on all the equipment across all Health Facilities covered by the Contract and must be completed on the forms of Annexure I. The information from the Preliminary Maintenance Control Plan will be expanded into that of the final Maintenance Control Plan as specified in Section GM 3.3 below. Details contained in this preliminary Maintenance Control Plan shall include:

1. A Maintenance Schedule containing all the different tasks that will be performed on all the equipment covered by this Contract, and captured on the **Preliminary Annual Equipment Maintenance Schedule** Form contained in Annexure I.
2. A brief Capacity Statement where the Contractor describes his company's capacity and experience that will be applicable to this Contract. This must include a description and location of his home base (workshop/home), number of staff with qualifications and experience, what staff and/or Sub-Contractors will be used to support on the Contract, available tools and/or specialized equipment, transport capacity and where staff will be based, as well as capacity/ability to repair defective equipment (i.e. overhauling a pump or compressor);
3. A detailed **Maintenance Task Planning Sheet** (See Annexure I) for each of the Minor, Major, and other, service activities priced in the Price List. This Maintenance Task Planning Sheet will describe the pricing and details of scheduled maintenance activities to be performed during services conducted as per the recommendations of the **Preliminary Annual Equipment Maintenance Schedule**, and will also be used to populate the respective Task Order. These prices must be all inclusive and must include all labour, service parts, lubricants and consumables, special equipment (if required), accommodation (if applicable) and any travelling and subsistence costs, etc. that might be applicable to do the service. The service price must indicate clearly if more than one piece of equipment will be combined for servicing during a single trip to avoid double payment for Travel and Subsistence related payments by the Employer.
4. The service methodology;
5. Preliminary grouping of equipment for maintenance purposes as per GM 2.13 (if applicable);
6. A breakdown of which sub-Contractors will be used (as per T2.2c), and for what activities, by the Contractor in rendering the services required by this Contract. **All Sub-Contractors must also be registered on the Treasury and Supplier Database;**

GM 3.3 MAINTENANCE CONTROL PLAN

One Maintenance Control Plan must be compiled for each Health Facility covered by the Contract. The Maintenance Control Plan shall be based on the Contractor's Preliminary Maintenance Control Plan information, and updated with the findings and data from the Functional Condition Assessment process. The Maintenance Control Plan shall be bound in a neat, A4 sized, ring bound document with a cover page and back cover and an original copy presented to the Service Manager. The contents of the document shall be indexed.

The Maintenance Control Plan will become the main plan for all work to be done under this Contract, as per the Main Contract Clauses, after the Contract has been awarded.

When the documents are compiled, the Contractor may reproduce relevant paragraphs from any of the specifications forming part of the Contract documents, or Operating and Maintenance Manuals, but should there be any discrepancies between such paragraphs and paragraphs in the Maintenance Control Plan and those in the Contract documents, those in the Contract documents shall be regarded as being correct and shall apply.

The Maintenance Control Plan shall also contain the following in addition to the items listed in Section GM 3.2:

1. Detailed Maintenance Schedule per equipment type, per Health Facility on the **Annual Equipment Maintenance Schedule Asset Specific** Form;
2. Re-measured service quantities for the routine services of Schedule 3 in the Price List, based on actual equipment condition and the ability to perform a service on them or not in their current condition. **The Contractual payments will be based on these re-measured quantities, accepted by the Service Manager, and not on the original Tendered quantities which might have been based on incorrect information at the time;**
3. A risk register containing all the foreseen risks that can have an impact on the cost and/or deliverables of this Contract as per the NEC3 Term Service Contract Standard Contract Clauses numbers 11.2(14), 16.1, and 16.4;
4. A summary of the repair and maintenance work to be carried out in terms of the Contract giving details of the conditions of the various installations at the facility affected by the activities under the Contract.
5. Details of how the Contractor intends to carry out the various types of maintenance work especially breakdown maintenance should breakdowns occur.
6. Details of the procedures agreed upon between the Service Manager and the Contractor on how breakdown calls will be handled (Call Centre process).
7. A list of organisations and persons directly involved with the Contract or whose requirements must be considered during the entire Service Period. Each person's position within his organisation as well as the applicable phone numbers shall be given. (See T2.2c)
8. Details of monthly meetings (dates, times and venues) to be held between the Contractor, Employer Representative and Site Representative.

9. Service Sheets and Reports to be submitted after every routine inspection (a copy of all reports, checklists, breakdown records, etc. for each system of an installation shall be kept on the site in a hardcover file);
10. A priced spare parts list for relevant spares that might be required for repairs and/or breakdowns for each equipment type. The Employer retains the right to negotiate the listed prices based on price comparisons with like type spares prices solicited through the Tender process;
11. A recommended spares list for items that should be held in stock at the facility;
12. Copies of the Repair Schedules from the Functional Condition Assessment process that has been approved to proceed;
13. An updated Cost Forecast of the estimated final total of the Prices for the whole of the services in consultation with the Service Manager at intervals as stated in the Contract Data Clause 20.5;
14. Procedures to address complaints and logged breakdowns.
15. Details of reports in electronic format, summarizing all inspections, together with inspection data such as nature of test, names of persons carrying out tests and inspection results. Detail of repairs and replacements, together with testing of repaired equipment shall also be reflected in this report, and shall be obtained from the service sheets.
16. Assistance to be given to the Service Manager and Engineering Representative with decisions regarding material, equipment and other recommendations.
17. An updated list of the inventory of equipment complete with the ID number (if available), make and model number, serial number, year of manufacture/age and capacity.
18. The Maintenance Control Plan shall be upgraded when its contents are no longer representative of actual conditions.
19. The Contractor shall check the contents of existing Operating and Maintenance Manuals (if available) and shall update or modify them and then incorporate applicable data into his own manuals. Where no manuals exist, the Contractor shall draw up his own Operating and Maintenance Manuals based on the OEM Operating and Maintenance manuals as per the requirements of GM 2.7.
20. The way maintenance data as recorded on service sheets will be captured and processed for submission to the Services Manager, for invoicing, and as part of the maintenance report.

Pertinent data contained in the Operating and Maintenance Manuals may be transferred to the Maintenance Control Plan to make it a document which can be used as an independent handbook for maintenance work in future.

GM4 COMMUNICATION

The Maintenance Control Plan (Paragraph GM 3.3) will provide, after agreement between the Contractor and the Service Manager, with the assistance of the Site Representative, for the following communication procedure to be implemented:

1. The Contractor shall establish a telephone and fax line and a cellular telephone connection to ensure that he can be reached at any time.
2. Should the Service Manager determine or suspect that preventative, corrective or breakdown maintenance is required, a call shall be logged through any communication channel available to reach the Contractor as soon as possible. This will be followed up with a Task Order.
3. Maximum down times will be as described in Paragraph GM 7.
4. All breakdown calls from the Health Facility will be reported to the Call Centre who will follow the procedure as detailed in Section GM 2.1.

GM 5 PERFORMANCE MEASUREMENT

The Contractor's performance shall be measured against the criteria specified in Section X20 of the Secondary Options Clauses of the Contract and C1.2b Annexure CD.

Poor performance by the Contractor will lead to penalties being imposed by the Service Manager as per X17 and C1.2b Annexure CD, and can lead to early termination of the Contract.

GM 6 SPECIAL TESTING OF AN INSTALLATION

An amount has been allowed in the Price List to cover the cost of additional tests that the Service Manager may request at his own discretion from time to time on the equipment and installations covered by this Contract. The Service Manager will have the sole authority to spend the amount or part thereof under sub-paragraph.

The Service Manager reserves the right to select, at random, component equipment and trade practices to be tested by the Contractor or independent authorities for compliance with specifications as specified in this Contract document.

The Contractor shall provide all equipment, tools and instruments required for such testing.

The Service Manager shall upon completion of the tests or inspections issue an inspection report including any corrective actions (if any) to be taken by the Contractor.

The Contracted mark-up percentage will be paid to the Contractor on the value of each payment made to the approved testing authority if any special testing is ordered by the Service Manager.

GM 7 MAXIMUM MAINTENANCE DOWN-TIME

After a breakdown, defect or complaint has been logged the Contractor will be expected to remedy the defect in the system/component with as little delay as possible, notwithstanding the maximum down-time allowed and listed in the following paragraphs or as stipulated in the Task Order. **Should the Contractor not respond within the maximum down-time, the Service Manager may arrange, at the cost of the Contractor, for the necessary repair work to be done by others.**

The Contractor shall respond to a breakdown registration by traveling to the site to evaluate the breakdown (scope of repair work), estimate the realistic cost as well as downtime and provide feedback to the Service Manager and Site Representative to form the basis of a Task Order.

Should the Contractor not be able to complete the required repair work within the maximum down-time period allowed, it shall be his responsibility to obtain extension of down-time from the Service Manager. 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 Service Manager if:

1. The maximum down-time is unreasonable in relation to the scope of the repair work required.
2. The delivery time of a new component/subassembly/machine or spares required for the repair of the defective component/subassembly does not enable the Contractor to successfully complete the repair work within the maximum breakdown down-time allowed.

Should the actual down-time exceed the maximum down-time, the Contractor shall be penalized as per X17 and C1.2b Annexure CD.

The maximum allowable response times are listed in table 1 below:

PRIORITY	DESCRIPTION	RESPONSE
P1	Emergency (Life Threatening)	Immediate response from the time of logging a call and the emergency to be resolved (at least temporarily) within 8 hours
P2	Urgent	Immediate response from the time of logging a call and to be resolved within 12 hours
P3	Planned Maintenance Repairs	Scheduled Maintenance is to be scheduled and performed within 3 business days of the scheduled date
P4	Emergency Facility Repairs	7 Days planning and execution subject to supply chain regulations

Table 1: Maximum allowable response times

"Maximum down-time" shall mean the period of time allowed to repair a breakdown, and "actual down-time" shall mean the measured period from the instant when the breakdown was reported or located until the installation has been repaired to its functional specification.

A guideline classification for typical P1, P2, P3 and P4 breakdowns for each installation are specified in the Supplementary Specification for each asset type.

The job card (Task Order) issued for the repair will state whether the repair is regarded as P1, P2, P3 or P4 and it will be required of the Contractor to react accordingly.

GM 8 MEASUREMENT AND PAYMENT

Measurement and payment will be done as per the Secondary Options Clauses of the Contract. See X1, X13, X17, X18, X19 and X20, supplemented by C1.2b Annexure CD.



PART C3.3

EASTERN CAPE DEPARTMENT OF HEALTH

SUPPLEMENTARY TECHNICAL SPECIFICATION

FOR THE

GENERAL MAINTENANCE AND REPAIRS

OF

MEDIUM VOLTAGE EQUIPMENT

AT

VARIOUS HOSPITALS AND HEALTH

FACILITIES IN THE

BUFFALO CITY METROPOLITAN

MUNICIPALITY AND AMATHOLE DISTRICT

OF THE EASTERN CAPE PROVINCE

SUPPLEMENTARY TECHNICAL SPECIFICATION FOR REPAIRS OF MEDIUM VOLTAGE EQUIPMENT

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**SUPPLEMENTARY TECHNICAL SPECIFICATION
FOR THE
GENERAL MAINTENANCE AND REPAIRS
OF
MEDIUM VOLTAGE EQUIPMENT**

SS 1. GENERAL

This specification is for the repair and fixed term maintenance of Medium Voltage Equipment at various hospitals and health facilities listed in paragraph SS 3. of the **BUFFALO CITY METROPOLITAN MUNICIPALITY AND AMATHOLE DISTRICT**.

This specification shall be read in conjunction with the Service Information which will include the Standard Specifications for the General Maintenance and Repairs to Electrical and Mechanical Installations, Standard Technical Specifications that may be applicable, the Supplementary Specification, the Operating and Maintenance Manuals (where applicable) and the Maintenance Control Plan, as well as the, General Conditions of Tender and all Schedules and Drawings forming part of the Tender.

Where specifications and/or drawings are at variance this Supplementary Specification will have preference over both the Standard Specifications and the Drawings.

Maintenance and servicing shall be carried out strictly as stated in the service schedules and after each service a copy of the service schedule duly completed and signed shall be submitted to the responsible Service Manager.

SS 2. EQUIPMENT INSTALLATIONS

The following equipment installations shall be maintained and repaired as part of this contract:

1. All MV Switchgear,
2. All MV/LV Distribution Transformers,
3. All MV/LV Mini-Subs,
4. All Employer owned MV power lines (if any) on the facility,
5. All MV cabling at each facility,
6. All MV related monitoring and test equipment including Battery Trip Units and ancillary equipment that is installed on the client side of the MV network.
7. Electrical termination from the secondary side of the supply authority bulk metering point or point of supply.
8. Fire detection and fire protection installations
9. Luminaires within the switch rooms
10. Switch room doors and ventilators
11. RMU, Mini-Sub and TRFR enclosures

The connection termination points will be:

The electrical termination point will be downstream from the electricity provider's point of supply (normally the breaker).

SS 3. SCOPE OF WORK

This specification is for the repair, maintenance and proper functioning of Medium Voltage Equipment, for the duration of the Contract period, in the following Health facilities:

BUFFALO CITY METROPOLITAN MUNICIPALITY

Item no.	FACILITY
1	Bhisho Hospital
2	Grey Hospital
3	Nkqubela Hospital
4	Cecilia Makhiwane Hospital
5	Frere Hospital
6	Duncan Village CHC

AMATHOLE DISTRICT

Item no.	FACILITY
1	Cathcart Hospital
2	SS Gida Hospital
3	Victoria Hospital
4	Winterburg TB hospital
5	Butterworth Hospital
6	Tafalofefe Hospital
7	Willowvale CHC

Details of the work required shall be as listed in the Price Lists which have been sub-divided into the following categories:

SCHEDULE 1: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

SCHEDULE 2: FUNCTIONAL REPAIR SCHEDULE

SCHEDULE 3: MAINTENANCE SERVICE SCHEDULE

SCHEDULE 4: TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION FOR THE WORKS

SCHEDULE 5: RENTAL MINISUBSTATIONS AND RING MAIN UNITS (RMU) OF THE SAME RATING AS THE TRANSFORMER AND OR RMU AT THE FACILITY

Note: The repair work included in Schedules 1 to 4 has been subdivided for each health facility where applicable.

The repair and maintenance phases shall run in parallel as specified in GM 2.4. The equipment to be repaired and maintained is listed under the Inventories of Equipment in Annexure A.

The maintenance work (Minor and Major Services) required on the equipment listed in the Inventory of the attached Annexure A, will be as per the pricing of the Schedule 2 Price List, but subject to the scheduling of the final Maintenance Control Plan as per paragraph GM 3.3. All work must comply to the minimum requirements set by the Standard Specifications for the General Maintenance and Repairs to MV Electrical Equipment, and this Supplementary Technical Specification for the MV Electrical Equipment.

The repair work will be as per the Schedule 3 Price List, but subject to work being approved from the Repair Schedule as per GM 2.6. Due to limited funds and as specified in paragraph GM 2.8, some of the repair work may be stretched over two or more financial years. The repair work for the first financial year will commence only after the Repair Schedule has been accepted and the relevant repairs approved by the Service Manager. The Contractor will be issued with a written instruction (Task Order as per GM 2.4) to proceed with the specified work.

SS 4. INSPECTION OF THE SITE

Due to the large number of and area over which the Health Facilities covered by this Contract is spread, it is the Contractor's own choice if he/she wants to inspect the sites prior to tendering to ascertain the condition of the equipment, or rely solely on the information provided as part of the Tender Documentation and single site tender briefing meeting. No further claims due to non-compliance with this requirement shall be entertained.

SS 5. STATUTORY AND REGULATORY REQUIREMENTS

The latest edition, including all amendments up to the date of tender, of the specifications, publications and codes of practice listed in the Standard Specification for Medium Voltage Equipment shall be read in conjunction with this specification and shall be deemed to form part thereof.

All equipment that is subject to regular statutory inspections shall be prepared for statutory inspections and tests only when the validity of the existing certificates has expired. This work will form part of the maintenance phase of the contract.

SS 6. GENERAL REQUIREMENTS FOR REPAIR AND MAINTENANCE CONTRACTS

Whenever reference is made in the specifications to repairs and/or repair phase it shall mean the repairs required to the installation to bring the installation up to a standard, as described in the Standard Specifications for the General Maintenance and Repairs to Electrical Installations. In general, the repair work shall commence only after the Functional Condition Assessment Report has been approved and the quantities verified.

Maintenance work must be completed according to the approved Maintenance Control Plan. (See GM 3.3). Repair work can only commence once the Service Manager has approved it (See GM 2.8), or a breakdown Task Order has been issued by the Call Centre. Critical repairs may be carried out immediately with the approval of the Service Manager, but will be priced as per the guidelines of GM 2.8

SS 7. ROUTINE SERVICING AND MAINTENANCE WORK

Maintenance of the Medium Voltage Installations may include, but is not limited to; inspections, service and/or replace the following:

MV SWITCH ROOM

- Ensure floors are not sagging and walls are not cracked or falling apart
- Ensure doors are functional and are lockable
- Ensure safety warnings and SLDs are accessible and legible
- The lighting should be functional and sufficient
- Clean any and all oil spillages
- Ensure fire detection and protections is functional and sufficient
- There should be sufficient ventilation is sufficient in all MV switch rooms
- There should vermin and where the is evidence of venom it should be cleared immediately

MV SWITCH GEAR (Feeder cubicles, ring main units and miniature substations)

- Open covers and remove dust
- Test MV protection relays
- Trip and rack out MV Circuit breakers
- Open oil tanks and check main contacts
- Inspect oil condition and check levels (take sample and test oil on instruction of the Service Manager)
- Service and lubricate switch trip mechanism
- Trip test HT breaker by secondary injection on protection relays

TRANSFORMERS

- Test MV and 110V potential transformers for correct operation
- Verify voltage and current loads to instruments
- Service batteries and test BTU for correct operation
- Infrared scan for hot connections
- Test transformer temperature and Buchholtz alarm trip
- Wipe down transformer and insulators with Trichloroethylene
- Check for oil leaks
- Check and service earth connections on both sides of transformer.
- Take sample transformer oil for testing of oil sample and report
- Replace silica gel if required
- Fill in and complete all log books with test results and sign off Inspections

MV Lines and Cabling

- Check and clean MV fuses
- Check surge arrestors
- Check conductors
- Check and clean isolators
- Check links
- Check earthing
- Check pole mounted transformer support brackets/platforms
- Check poles and anchor cables
- Visual inspection of MV cabling where possible/accessible

SS 8. TRAINING OF THE DEPARTMENT'S MAINTENANCE STAFF

Due to the highly specialized nature and statutory safety requirements for working on, and with Medium Voltage Installations, there will be no site-specific training required for the Employer's site maintenance staff.

The Contractor shall ensure that his own maintenance personnel are sufficiently qualified and experienced for the duties required.

SS 9. TRAINING OF DEPARTMENTS OPERATING STAFF

The Contractor shall be responsible for the training of the Department's operating staff after the maintenance and/or repairs has been completed. Operating staff must receive enough instructions to ensure that they are fully conversant with the equipment concerned, and so that they can understand what the impact of their actions (or lack thereof) will be on the equipment. Operating staff shall be instructed on:

1. The general operating method and safety requirements of the plant;
2. General operation instructions (switching, etc. may only be performed by a competent person);
3. Stopping the plant or unit in an emergency and warning against restarting after an emergency unless a competent person is present;
4. Positions and normal settings of control equipment;
5. Normal operating temperatures, Voltages, Amperes, etc.;
6. Safety measures, especially against high voltages;
7. Operational checks on sight glasses, running amperages, etc.;
8. Name, address, and telephone number of the competent person responsible for the maintenance of the plant or unit.
9. Maintenance Log Book (Update maintenance and service records into Log Book).

The operating and maintenance manual must be available during the training of operating staff. Operating staff must also be made conversant with the contents of the manual.

SS 10. COMPETENT PERSON ON SITE

It is not a condition of contract that a Competent Person must be full time on site. Payment reductions will however be imposed if repairs are not carried out within the time limitations specified in Paragraph GM 7. Tenderers are therefore advised to evaluate the additional expense required for a competent person on site to ensure quick response against the possibilities of payment reductions, before submitting a tender.

SS 11. CLASSIFICATION OF BREAKDOWNS

The classification of breakdowns specific to Medium Voltage Installations shall be as follows in line with the requirements of GM 7:

- P1 = Any breakdown or problem that causes the MV installation to trip or becoming inoperable, thus interrupting the Health Facility's main power supply.
- P2 = Any problem on the MV system that is an immediate danger to the safety of any person.
- P3 = Any problem on the MV installation's equipment that does not pose an immediate risk for a power failure, but that will have a negative effect on the equipment in the short to medium term if not remedied ASAP. (i.e. tracking due to dirty insulators, etc.)

PRIORITY	DESCRIPTION	RESPONSE
P1	Emergency (Life Threatening)	Immediate response from the time of logging a call and the emergency to be resolved (at least temporarily) within 8 hours
P2	Urgent	Immediate response from the time of logging a call and to be resolved within 12 hours
P3	Planned Maintenance Repairs	Scheduled Maintenance is to be scheduled and performed within 3 business days of the scheduled date

SS 12. PENALTIES

Penalties applicable to this specification will be as per the criteria specified in Section X17 of the Secondary Options Clauses of the Contract.

PART C4: SITE INFORMATION

C4: SITE INFORMATION

PROJECT NAME	SCHEDULE MAINTENANCE OF MEDIUM VOLTAGE EQUIPMENT IN BUFFALO CITY METROPOLITAN MUNICIPALITY AND AMATHOLE DISTRICT – HOSPITALS AND HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

C4.1 Site Information

1. GENERAL

- a) The Standard for Uniformity in Construction Procurement published in terms of the Construction Industry Development Board (CIDB) Act, 2000 (Act no 38 of 2000), the Standardized Construction Procurement Documents for Engineering and Construction Works as issued by the CIDB and any other relevant documentation pertaining thereto must be studied and all principles in this regard must be applied to all procurement documentation, practices and procedures.
- b) The Supplier must acquaint themselves fully with all matters pertaining to this section in order to enable prospective Suppliers to price for all eventualities.
- c) All hospitals are functional, caution must be taken in terms of contractor movement and noise.
- d) The employer will advise will confirm where the stripped materials need to be disposed.

2. LIST OF FACILITIES

BUFFALO CITY METROPOLITAN MUNICIPALITY

Item no.	FACILITY
1	Bhisho Hospital
2	Grey Hospital
3	Nkqubela Hospital
4	Cecilia Makhiwane Hospital
5	Frere Hospital
6	Duncan Village CHC

AMATHOLE DISTRICT

Item no.	FACILITY
1	Cathcart Hospital
2	SS Gida Hospital
3	Victoria Hospital
4	Winterburg TB hospital
5	Butterworth Hospital
6	Tafalofefe Hospital
7	Willowvale CHC



PART 5: APPENDICES

C5.1: MEDIUM VOLTAGE EQUIPMENT SIX MONTHLY INSPECTION

Note:

Annual inspections must be conducted by the service provider.
Results and findings must be entered in the MV log book and signed by the relevant operator/maintainer.
Ensure that all staff is issued with a work permit and recorded into a workers register.

The tasks listed are for a generic service regime. Where this Task List included below does not include manufacturers servicing specifications, the Original Equipment Manufacturer's servicing specifications must be added, as all services are to be carried out in accordance with the manufacture's specification.

MV Control Panel including Circuit Breakers

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Ensure installation is safe before performing any maintenance			
2	Verify voltage on Battery Trip Unit			
3	Ensure that all secondary wiring and panel wiring terminals are tight			
4	Trip and rack out circuit breaker			
5	Inspect circuit breaker			
6	Trip test MV circuit breaker by secondary injection through protection relay			
7	Test MV protection relays by secondary injection for trip timing			
8	Test functionality of spring wind mechanism (and motor if fitted)			
9	Test panel voltage transformer (VT) if fitted			
10	Verify voltage and current load to instrumentation			
11	Check and verify instrumentation functionality			
12	Check condition of labels and legend cards			



Miniature Substation (M- sub)

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Visual inspection for rust and/or missing panels			
2	Open doors on mini sub and remove dust on the inside where possible			
3	Inspection of MV protection - fuse size/direction			
5	Check and refill oil in transformer and switchgear			
6	Check condition of incoming MV cable and connections on primary side of the transformer			
7	Inspection of instrumentation			
8	Testing of thermal tripping, where applicable			
9	Conduct thermal inspection for hot spots			
10	Check earthing of mini-sub			
11	Check condition of labels and legend cards			
12	Check the status of mechanism on doors			
13	Check the status of locks on doors			
14	Check and report any significant changes since last inspection			
15	Complete a transformer check sheet for the M-sub transformer			



Transformer

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Check transformer casing for any oil leaks. Report leaks.			
2	Conduct thermal inspection for hot spots			
3	Check silica gel breathers. Ensure that they are not blocked. Replace silica gel if colour changed.			
4	Inspect condition of terminals and insulators			
5	Check oil level and top up if needed			
6	Check oil and winding temperature gauges			
7	Inspect and test transformer protection devices			
8	Check functionality of Bucholtz relay			
9	Check that all valves are functional and in the correct position, (open or closed)			
10	Listen for abnormal noise and vibration. Inspect for any alarms (including flags).			



Battery Trip Unit

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Check alarm panel for any alarm indication			
2	Visual inspection of battery cells for terminal corrosion			
3	SG readings and top up battery cells			
4	Test float and boost voltage			
5	Test and record individual battery cell voltage and total voltage			

Other MV Equipment

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Check MV panels including busbars			
2	Check for hot spots that can indicate loose connections and/or overloads			
3	Check fuses and holders			
4	Check instrumentation			
5	Check for tracking and clean if safe to do so			
6	Check power line poles			
7	Check power line insulators			
8	Check power line cable			
9	Check power line anchor lines			
10	Check power line jumpers/connections			



C5.2 MEDIUM VOLTAGE EQUIPMENT ANNUAL SERVICE

Note:

Annual service must be conducted by the service provider.

Annual service will include three monthly inspection tasks.

Results and findings must be entered in the MV log book and signed by the relevant operator/maintainer.

Ensure that all staff is issued with a work permit and recorded into a workers register.

The tasks listed are for a generic service regime. Where this Task List included below does not include manufacturers servicing specifications, the Original Equipment Manufacturer's servicing specifications must be added, as all services are to be carried out in accordance with the manufacture's specification.

MV Control Panel including Circuit Breakers

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Ensure installation is safe before performing any maintenance			
2	Verify voltage on Battery Trip Unit			
3	Ensure that all secondary wiring and panel wiring terminals are tight			
4	Trip and rack out circuit breaker			
5	Inspect circuit breaker			
6	Service and lubricate switch and trip mechanism			
7	Test insulation resistance (incl. DAR & PI), contact resistance (Ductor) and circuit breaker timing – attach test results			
8	Trip test MV circuit breaker by secondary injection through protection relay			
9	Test MV protection relays by secondary injection for trip timing			
10	Test functionality of spring wind mechanism (and motor if fitted)			
11	Test panel voltage transformer (VT) if fitted			
12	Verify voltage and current load to instrumentation			
13	Check and verify instrumentation functionality			
14	Check condition of labels and legend cards			



Miniature Substations (M-Sub)

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Visual inspection for rust and/or missing panels			
2	Open doors on mini sub and remove dust on the inside where possible			
3	Inspection of MV protection - fuse size/direction			
4	Check and refill oil in transformer and switchgear			
5	Check condition of incoming MV cable and connections on primary side of the transformer			
6	Check and test wiring on the secondary LV side of the transformer			
7	Inspection of instrumentation			
8	Service and check MV switch mechanism			
9	Test insulation resistance of switchgear (incl. DAR & PI), contact resistance (Ductor)			
10	Service and check main LV switch			
11	Service and check sub LV circuit breakers			
12	Testing of thermal tripping, where applicable			
13	Conduct thermal inspection for hot spots			
14	Check earthing of mini-sub			
15	Check condition of labels and legend cards			
16	Check the status of mechanism on doors			
17	Check the status of locks on doors			
18	Check and report any significant changes since last inspection			
19	Complete a transformer check sheet for the m-sub transformer			
20	Check and refill oil in transformer and switchgear			



Miniature Substations (M-Sub)

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Check transformer casing for any oil leaks. Report leaks.			
2	Conduct thermal inspection for hot spots			
3	Check silica gel breathers. Ensure that they are not blocked. Replace silica gel if colour changed.			
4	Inspect condition of terminals and insulators			
5	Clean insulators (only if transformer is switched off and made safe)			
6	Check oil level and top up if needed			
7	Check oil and winding temperature gauges			
8	Take oil sample and submit for analysis, and supply report			
9	Inspect and test transformer protection devices			
10	Check tap changer			
11	Check functionality of Bucholtz relay			
12	Check that all valves are functional and in the correct position, (open or closed)			
13	Listen for abnormal noise and vibration. Inspect for any alarms (including flags).			



Battery Tripping Unit

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Check alarm panel for any alarm indication			
2	Visual inspection of battery cells for terminal corrosion			
3	Re-torque battery cell terminals			
4	SG readings and top up battery cells			
5	Test float and boost voltage			
6	Test and record individual cell voltage and total voltage			
7	Inspect and test transformer protection devices			

Other MV Equipment

Step	Service/Inspection Step Description	Task Done?	Value / Reading	Comments/Findings
1	Check MV panels including busbars			
2	Check for hot spots that can indicate loose connections and/or overloads			
3	Check fuses and holders			
4	Check instrumentation			
5	Check for tracking and clean if safe to do so			
6	Inspect and test transformer protection devices			

C3.2: HEALTH AND SAFETY SPECIFICATION

PROJECT NAME	SCHEDULE MAINTENANCE OF MEDIUM VOLTAGE FACILITIES- AMATHOLE DISTRICT AND BCM – HEALTH FACILITIES
TENDER No.	SCMU3-24/25-0460-HO

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1. INTRODUCTION AND BACKGROUND

- 1.1 The Construction Regulations No. 3705 of 7th February 2014 require the Client to prepare a pre-construction Health and Safety Specification, with all existing risks identified.
- 1.2 The Eastern Cape Department of Health (ECDoH) is tasked to provide Healthcare operational facilities across the Eastern Cape.
- 1.3 The ECDoH has a responsibility to limit its risk by ensuring a zero tolerance and best practice approach to Contractors and those affiliated to a construction project. Thus, a high premium is placed on the health and safety (H&S) of ECDoH stakeholders, which include its employees, professional service providers, public and its physical assets.
- 1.4 The responsibilities that the Department and relevant stakeholders have toward its employees are captured in, but not limited to this document. The responsibilities stem from both moral, civil and a variety of legal obligations.
- 1.5 The Principal Contractor is to take due cognizance of the above statement.
- 1.6 The ECDoH, as the Client and where there is an appointed H&S Agent on its behalf, shall provide a project specific Health & Safety Specification (PSHSS) for the project and provide the Principal Contractor/s making a bid or appointed to perform construction work for the project, or parts thereof such documentation.
- 1.7 This Health and Safety Specification complies with the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations of February 2014.
- 1.8 This Health and Safety Specification is to be used as a management tool to comply with the Occupational Health and Safety Act.

2. KEY ROLE PLAYERS

2.1 CLIENT

- 2.2.1 Electrical Engineer
- 2.2.2 Health & Safety Agent

2.2 ELECTRICAL MAINTENANCE CONTRACTOR

- 2.2.3 Electrical Maintenance Manager
- 2.2.4 Electrical Maintenance Supervisor
- 2.2.5 Registered Construction Health & Safety Officer
- 2.2.6 Other

3. LIST OF ABBREVIATIONS

AAIA	Approved Asbestos Inspection Authority
AIA	Approved Inspection Authority
BoQ	Bill of Quantities
CC	Compensation Commissioner
CR	Construction Regulations
DMR	Driven Machinery Regulations
DoEL	Department of Employment and Labour
FEMA	Federated Employers Mutual Association
GAR	General Administration Regulations
GSR	General Safety Regulations
HCSR	Hazardous Chemical Substances Regulations
HIRA	Hazard Identification Risk Assessment
H&S	Health and Safety
ER	Engineer's Representative
LI	Labour Intensive
OH	Occupational Health
OHSA	Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS	Occupational Health and Safety Specification
PSHSS	Project Specific Health and Safety Specification
PC	Principal Contractor
PPE	Personal Protective Equipment
SANS	South African National Standards (Authority)
SDS	Safety Data Sheet
SMME	Small, Micro, Medium Enterprise
SWP	Safe Work Procedure

4. DEFINITIONS

The definitions used will be those set out in the Regulation Gazette N0 3705 of 7th February 2014 with the following additions:

4.1 Client:

The Superintendent General, Department of Health of the Province of the Eastern Cape.

4.2 Hazard:

Source of exposure to danger.

4.3 Hazard Identification and Risk Assessment (HIRA) and Risk Control:

Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

4.4 Health and Safety Agent:

Means any person who acts as a representative for the Client in managing the overall health and safety work as their responsible person.

4.5 Health and Safety Plan:

Means a documented plan which answers to the Project Specific Health and Safety Specification; including all the supporting documentation that indicate how the Principal Contractor or Contractor plans to manage H&S for the duration of the Contract.

4.6 Induction Training:

Means once off introductory training on general health and safety issues given to allemployees and visitors to the site before commencement of work on site.

4.7 Risk:

Means the probability or likelihood that a hazard can result in injury or damage.

4.8 Regulation/s:

Shall mean the relevant regulation/s promulgated in terms of the Occupational Health and Safety Act, No. 85 of 1993 and the Construction Regulations No. 3705 of 7th February 2014.

4.9 Site:

Means the area in the possession of the Principal Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities for the Principal Contractor and approved for such use by the Designer.

4.10 The Act:

Means, unless the context indicates otherwise, the Occupational Health and Safety Act, No.85 of 1993 and Regulations promulgated thereunder, as amended.

5. KEY REFERENCES

5.1 Occupational Health and Safety Act No. 85 of 1993 and Regulations (as amended).

5.2 Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended)

5.3 The Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations 2022, the General Conditions of Contract (GCC)

5.4 Construction Regulations No. 3705 of 7th February 2014

5.5 SANS Code 10400 and others that are applicable.

6. PURPOSE OF THE PROJECT SPECIFIC HEALTH AND SAFETY SPECIFICATION (PSHSS)

6.1 The PSHSS is a performance specification to ensure that the Client and any bodies that enter into formal agreements with the Client Viz. Agents, Professional Service Consultants (Engineers, Quantity Surveyors and Architects), Principal Contractors and Contractors achieve an acceptable level of OHS performance.

6.2 To assist in achieving compliances with the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations of February 2014, to, as far as is practical, reduce or eliminate incidents or injuries.

6.3 No advice, approval of any document required by the PSHSS, such as hazard identification and risk assessments, or any other form of communication from the Client shall be construed as acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of

performance and compliance with legal requirements.

6.4 Furthermore, there is no acceptance of liability by the Client, which may result from the Principal Contractor failing to comply with the PSHSS, i.e. the Principal Contractor remains responsible for achieving the required performance levels.

6.5 A Mandatory Agreement in terms of Section 37.2 of the OHSA will be signed between parties prior to any works commencing.

6.6 The PSHSS highlights the aspects to be implemented over and above the minimum requirements of current legislation.

6.7 Requirements may be changed should new risks or issues are identified that could not have been foreseen during the design phase of the project, or during the construction phase. Any new legislation or standards (legislated or determined by the (ECDoH) that are promulgated or accepted during the contract will automatically be applied.

6.8 Environmental management shall receive due attention as per the requirements of the Environmental Control Officer (ECO) but will be managed by the ECO directly.

6.9 The Contractor shall use this Specification as a basis for the drafting of his and any Subcontractors' Construction Health and Safety Plans.

6.10 The Specification sets out the requirements to be followed by all Contractors so that the Health and Safety of all persons who may be affected by the Construction Project will receive proper priority.

6.11 The Project Specific Risks that have been identified have been tabulated in Section 18 of this Specification.

7. IMPLEMENTATION OF THE PROJECT SPECIFIC OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS (PSHSS)

7.1. The project specific H&S specification (PSHSS) forms an integral part of the Contract, and PCs are required to make it an integral part of their Contracts with Contractors and Suppliers.

7.2. A PSHSS will be available for each level of Contract and Contractor and must be complied with.

7.3. This specification must be read in conjunction with the OHSA, Regulations thereto (as amended) and any other standards relating to work being done and ensure compliance thereto.

7.4. The information relative to the scope of the project, the works etc. are detailed in the tender, are to be considered when developing the H&S plan and associated documentation.

7.5. The summary of risks is included in Section 18 of the PSHSS.

7.6. The OHSA S.37.2 Mandatory Agreement must be fully completed by the PC, supplied by the Client.

7.7. No work may commence without written approval of the H&S plan by the H&S Agent, or the responsible person in the ECDoH.

7.8. Should there be design changes, or change in the scope of works, an amended PSHSS may be issued.

7.8.1. Where amended PSHSSs are issued, the PC will be required to ensure a resubmission of an amended H&S plan for approval.

7.8.2. Further to this, the PC must ensure that similar information must be provided as it applies to the works to all their Contractors, within 5 working days following notification thereof of such design changes.

7.9. The H&S Agent will visit the project as deemed necessary by the Designer and the H&S Agent to ensure compliance and limit risk.

7.9.1. All activities on the site and all appropriate documentation will be monitored and reported on to the Client and the Designer.

7.10. Non-conformances will be issued, and penalties or work stoppage will be issued where appropriate. Communication between the H&S Agent and the PC will be through the Designer (or Client's responsible person) as determined at the commencement of the project.

7.11. The Contractor must forward a copy of the Health and Safety plan to all Subcontractors to enable them to prepare their own Health and Safety plans.

8 APPLICATION

8.1. This Specification is a compliance document drawn up in terms of the Occupational Health and Safety Act No. 85 of 1993, and the Construction Regulations of February 2014, and is therefore binding on the Contractor as well as the Client.

8.2. All Contractors are to comply with the conditions of this Health and safety Specification.

8.3. All Direct Contractors carrying out work on behalf of the Eastern Cape Department of Health, for **SCHEDULE MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-AMATHOLE DISTRICT AND BCM – HEALTH FACILITIES** are also required to comply with the conditions of this Health and Safety Specification.

8.4. All staff and representatives of, Eastern Cape Department of Health, **SCHEDULE MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-AMATHOLE DISTRICT AND BCM – HEALTH FACILITIES**, who visit the site are required to comply with the conditions of this Health and Safety Specification.

8.5. Facility is also required to comply with the conditions of this Health and Safety Specification.

8.6. Facilities staff and everyone who visit the site is required to comply with the conditions of this Health and Safety Specification.

9 REQUIREMENTS AT TENDER STAGE

9.1. Adequate pricing for H&S is required, and the appropriate section in the BoQ is to be completed. **1**

9.1.1. Failure to do so could result in the Tender being regarded as non-responsive.

10 GENERAL REQUIREMENTS

10.1. Summary of Risks identified during Design.

- a) At the onset the Principal Agent will identify any Project Specific hazards or risks that may affect the work.
- b) These hazards or risks are listed under section 18 of this Specification.
- c) Tenderers are also advised to notify the client of any other risks or hazards that have not previously been identified.
- d) These risks are to be recorded and a recommended procedure for addressing each item agreed on and recorded.
- e) The Contractor is to conduct inspections of all tools and equipment before the commencement of the works and at least once a week during the works.
- f) The Contractor shall ensure that all Contractors and workers are informed, instructed and trained by a competent person regarding any hazards, risks and related safe work procedures as part of the Induction process before any work commences and thereafter at regular intervals as the risks change and as new risks develop.
- g) Proof of this training must be kept for inspection by the Client or Client's Representative.
- h) The Contractor shall be responsible for ensuring that all persons who could be negatively affected by the operations are informed and trained according to the hazards and risks and are conversant with the safe working procedures, control measures and other related rules (toolbox talk strategy to be implemented).
- i) The format used for the risk assessment must make provision for the following information.
 - Reference Number
 - Project Name
 - Identification of task assessed.
 - Date
 - Risk assessment team & designation
 - Approval of risk assessment team.
 - Risk rating with matrix
 - Review date
 - Task steps
 - What can go wrong (Hazard)
 - The result (Risk)
 - Risk rating
 - Preventative Action (Control Measures)
 - The format The Principal Contractor is to ensure that all Hospital Staff and Management personnel that will be affected by the works are fully informed of the risks and hazards associated with the works.

10.2 Specified Hazardous Chemical Substances

- a) Where the PC is likely to supply the product as the product has not been specified, safety data sheets (SDSs) need to be considered prior to all selections.
- b) Hazardous and potential situations

The Principal Contractor shall immediately notify other Contractors as well as the Client of any hazardous or

potentially hazardous situations that may arise during performance of construction activities.

11 OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

11.1. Scope

11.1.1. The Specification covers the requirements for eliminating and mitigating incidents and injuries at **SCHEDULE MAINTENANCE OF MEDIUM VOLTAGE FACILITIES-**

AMATHOLE DISTRICT AND BCM – HEALTH FACILITIES.

11.1.2. The scope addresses legal compliance, hazard identification, risk assessment, risk control, and promoting a Health and Safety culture on the project.

11.1.3. The Specification also provides for the protection of those persons other than employees.

11.2. Scope of Works

This specification is for the repair, maintenance and proper functioning of Medium Voltage Equipment entailing; transformers, MV Switchgear, Battery Tripping Unit (BTU) and other associated equipment, for the duration of the Contract period, in the following Health facilities:

AMATHOLE DISTRICT

Item no.	FACILITY
1	Adelaide Hospital
2	Bedford Hospital
3	Cathcart Hospital
4	Fort Beaufort Hospital
5	SS Gida Hospital
6	Tower Hospital
7	Victoria Hospital
8	Winterberg TB Hospital
9	Willowvale CHC

BUFFALO CITY DISTRICT

Item no.	FACILITY
1	Bhisho Hospital
2	Cecilia Makhiwane Hospital
3	Frere Hospital
4	Grey Hospital
5	Nkqubela Hospital
6	Duncan Village Hospital
7	Empilweni CHC

Details of the work required shall be as listed in the Price Lists which have been sub-divided into the

following categories:

SCHEDULE 1: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

SCHEDULE 2: FUNCTIONAL REPAIR SCHEDULE

SCHEDULE 3: MAINTENANCE SERVICE SCHEDULE

SCHEDULE 4: TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION FOR THE WORKS

SCHEDULE 5: ROAMING MINISUBSTATIONS AND RING MAIN UNITS (RMU) OF THE SAME RATING AS THE TRANSFORMER AND OR RMU AT THE FACILITY

11.3 Structure and Organization of H&S Responsibilities

Principal Contractor to provide a proper OHS organogram.

11.3.1 Notification of Construction Work

- a) The Principal Contractor will notify Department of Employment and Labour about the anticipated commencement of construction work (7) seven days before the commencement of construction activities. Annexure 2 will be used to notify the provincial director.

11.4 Health and Safety Plan Framework

- a) The H&S aspects related to the project outlined in the previous sections are to be considered when drawing up the H&S Plan.
- b) The PC is required to demonstrate competence by providing an H&S system that will address the requirements of the project.

11.5 Appointment of Competent Personnel

11.5.1 The CEO (OHSA S16.1) of the PC will take overall responsibility for the appointment of competent staff for the duration of the project. Should the CEO not be personally involved in the project, the H&S responsibilities are to be delegated to the Site Agent (OHSA 16.2). Knowledge and training in H&S is required, and certificates indicating H&S training as well as experience to be included in CVs.

11.5.2 All other legal appointments are to be made with relevance to the type of work required and kept current with the project programme.

11.6 Contracts Supervision

11.6.1 Competent Maintenance manager will be appointed to manage part or all the works and have training and/or experience in the area of responsibility. All site supervisors must show evidence of appropriate training in H&S, and an understanding or training in areas of responsibility (i.e., risk assessments, method statements etc.).

11.6.2 Maintenance Supervisor is to be full time on site, for this single site.

11.6.3 Curriculum Vitae (CVs) are to be submitted for approval by the Designer, and/or Client.

11.6.4 The Manager will be held responsible for the safety of working teams and subordinates, housekeeping and stacking and storage of materials.

11.7 Construction Health and Safety Management

11.7.1 The PC will employ at least one competent Part Time H&S Officer for the duration of the contract.

11.7.2 The H&S Officer CVs are to be submitted for approval to the H&S Agent or the Client.

11.7.3 The CHSO must provide the SACPCMP valid registration certificate, CV and relevant certificates/qualifications. The officer will be required to compile a monthly report, see Annexure A.

11.7.4 In the case of a contract where contractors are employed, the H&S Officer must have competence to evaluate the Contractors Health and Safety plans.

11.7.5 The H&S Officer will be held responsible for all H&S issues on the project.

11.7.6 Senior site staff and supervision, Contractors are to follow systems, instructions etc., always given by the H&S Officer.

11.7.7 No new workers or Contractors may commence work without a medical certificate of fitness issued by Occupational Medical Health Practitioner.

11.7.8 A monthly report of all H&S activities and incidents is required by the end of the first week of each month, or at a date agreed to by the H&S Agent/Client and the H&S Officer.

11.7.9 An example of the monthly report is attached as an Annexure C.

11.7.10 The H&S Officer will be responsible for collating the H&S documentation at the close out of the project in electronic format.

11.7.11 A list of the typical aspects that should be provided is available as Annexure B to this document.

11.7.12 The PC is to ensure that all Contractors documentation follows the same requirements and closed out H&S documentation must be completed and be available with the closeout of the main contract.

11.8 Failure to do so will be considered a serious offence and penalties applied.

11.9 Health and Safety Representatives and H&S meetings

11.9.1 H&S Representatives representing workers and Contractors are to be appointed following the start-up of the project, irrespective of the number of workers on site.

11.9.2 The appointed H&S Representatives are to be actively involved with H&S and will assist the H&S Officer and site management in meeting legislative duties.

11.9.3 The H&S Officer shall further ensure that H&S is discussed at all internal production or progress meetings.

11.9.4 Issues arising from the H&S Agent audits are to be discussed, as well as all H&S related issues.

11.9.5 Minutes are to be kept for all H&S interventions and meetings. Failure to do so will be deemed to be a moderate offence.

11.9.6 Every team that is allocated to a site should have someone competent to manage safety (Incident investigation/ daily risk assessment/ and feedback on other risk associated found)

11.10 Appointment of Competent Contractors

11.10.1 The Principal Contractor is to ensure compliance with the Client's minimum standards and all legislative requirements.

11.10.2 All competent persons shall have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control, and carry out.

11.10.3 The Principal Contractor is responsible to ensure that competent Contractors are appointed to carry out construction work.

11.10.4 The same H&S standards required of the PC are to be applied to all Contractors.

11.10.5 An index of all Contractors and Suppliers is to be on file and kept updated at all times.

11.10.6 Where the ECDoH appoints Direct Contractors or uses the Maintenance staff to carry out works in the site area, the ECDoH is to ensure that the appropriate competent persons are responsible for supervising & controlling the work being undertaken.

11.10.7 The PC is to ensure there is sufficient funding for H&S compliance by each Contractor.

11.10.8 The following minimum aspects are applicable to any Contractor appointed:

11.10.8.1 Mandatory agreements in place

11.10.8.2 Letter of Good Standing

11.10.8.3 Method statements and risk assessments

11.10.8.4 Available information relative to:

- a) Load testing and registers for cranes or lifting devices
- b) Medical certificates of fitness
- c) Safety data sheets (SDSs)

11.10.9 Failure to provide written approval of H&S documentation will be considered a serious offense, and could result in aspects of, or all the activities being stopped, and penalties implemented.

12 General Risk Management

12.1 Health Risks and Medical Surveillance

- 12.1.1 All permanent workers (including those of Contractors) are required to be in possession of a medical certificate of fitness issued by a registered Occupational Medical Practitioner prior to commencing work. Medical surveillance will commence pre-employment.
- 12.1.2 All workers (including Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.
- 12.1.3 Lung Function test a must be done in Medical.
- 12.1.4 Employees required to perform work at heights or from fall risk position must be medically fit to perform such work, such employee's medicals must specify "Fall Risk" or "Working at heights" in the exposure section of the annexure 3 template.
- 12.1.5 Annual medical surveillance is required (unless identified as being required more frequently), as well as exit medical.
- 12.1.6 Arrangements for keeping medical records for the required time are to be noted.
- 12.1.7 It is preferable that the PC has a medical surveillance plan.
- 12.1.8 Where a TB Hospital we need:
 - a) Proper ventilation when working in areas.
 - b) FFP 2 Mask to be worn when working in areas.
 - c) Medicals must be done for all with Lung function test as a must.
 - d) Employees must wear mask when working near patients.
- 12.1.9 Where working near Forensic facilities:
 - a) All people working near patients to have Hepatitis B inoculations.
- 12.1.10 Failure to do so will be considered a serious offence.

12.2 General Environmental Conditions

- 12.2.1 Compliance with the Environmental Regulations (as amended), among others, is required.
- 12.2.2 Environmental monitoring of ventilation, lighting and dust may be deemed to be required by the Approved Inspection Authority used to measure the environment.
- 12.2.3 Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.
- 12.2.4 Any spillages of substances which could be toxic to persons must be dealt with adequately. The Contractor must include his spillage removal system in the OHS Plan. (spill kit to be carried with every bakkie)

12.3 Noise Risks

- 12.3.1 All plants from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations.
- 12.3.2 Plant identified that has not been tested and marked for noise emissions will result in having to be tested at the Contractors or PCs expense.
- 12.3.3 Failure to do so within a reasonable time will result in such plant being removed from site.
- 12.3.4 Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work commencing.
- 12.3.5 Temporary labour working in identified noise areas will require testing if the noise levels are indicated on plant or through processes as greater than 85dB.
- 12.3.6 Audiometry records are to be available in the H&S file.
- 12.3.7 Suitable SANS approved hearing protective equipment shall be issued and worn where noise levels are identified as equal to or greater than 85 db.
- 12.3.8 Failure to do so will be considered a serious offence.

12.4 Emergency Procedures

- 12.4.1 The Principal Contractor must prepare a detailed emergency procedure manual for approval by the Client prior to commencement of work on the site.
- 12.4.2 It is advised that the system should be simple and easy for any worker to follow.
- 12.4.3 The plan may be adapted should new information or risks are identified.
- 12.4.4 The procedures for dealing with the emergency evacuation of staff must be agreed upon with the Facility Management.
- 12.4.5 All teams should have knowledge and skills for emergency (Per Bakkie Designation)

12.5 First Aiders and First Aid Equipment

- 12.5.1 Competent, trained First Aider is to be formally appointed for the project.
- 12.5.2 At least one worker is to be trained to level 3.
- 12.5.3 A first aider is to be available at all times and be able to cover each working team.
- 12.5.4 Further first aiders from the community or SMMEs, if not already accredited, are to be sent for accredited first aid training.
- 12.5.5 Appropriately stocked first aid kits are to be available at all times and to assure continual availability and access on site.

12.6 Fires and Emergency Management

- 12.6.1 Attention to emergency planning and procedures is very important.
- 12.6.2 The full emergency plan must form part of the supporting documentation with the H&S Plan.
- 12.6.3 It is advised that the system should be simple and easy for any worker to follow.
- 12.6.4 The plan may be adapted should new information or risks are identified.
- 12.6.5 First aiders shall be available in each working team and be able to work as a team when responding to any emergency on the project.
- 12.6.6 The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements:
 - a) Appointment of a competent emergency response coordinator and wardens;
 - b) Fire Fighting equipment to be supplied per vehicle and a competent person per bakkie to be able to have fire training.

12.7 Incident Management and Compensation Claims

- 12.7.1 The PC will ensure there is a management system to investigate all incidents.
- 12.7.2 All serious incidents involving any form of disabling injury or fatality are to be reported to the Client immediately.
- 12.7.3 This shall be confirmed in writing following the incident.
- 12.7.4 Full details are to be included in each site meeting or when the Client visits site.
- 12.7.5 A summary of incidents is to be included in the monthly report.
- 12.7.6 Failure to comply with emergency provisions will be considered a serious offence, and the operation or project may be stopped if deemed inadequate for the work at the time of assessment or site inspection.
- 12.7.7 Per team all employees to have knowledge of above

12.8 Personal Protective Equipment (PPE) and Clothing

- 12.8.1 The PC is to provide a procedure as an addendum to indicate how PPE is managed within the Company.

12.8.2 The wearing of the identified SANS approved PPE always is non-negotiable.

12.8.3 The PC shall ensure that all workers (Including Contractors) are issued with and shall wear asrequired; the first 3 items are mandatory for all workers:

- a) Protective footwear.
- b) Reflective jackets (no bibs)
- c) Overalls that ensure worker visibility
- d) Eye protection.
- e) Hearing protection.
- f) Respiratory protection (minimum of FFP2), and
- g) Any other necessary PPE identified from SDSs and/or risk assessments.

12.8.4 Adequate quantities of PPE shall be available. This shall include the necessary PPE for visitors. The procedures for managing PPE are to be in a formal procedure submitted with the H&S plan for approval.

12.8.5 Failure to comply will result in penalties being applied.

12.9 Occupational Health and Safety Signage

12.9.1 On-site H&S signage is required.

12.9.2 Signage shall be posted up at temporary working areas, or other potential risk areas/operations.

12.9.3 These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended.

12.9.4 Signage is to be noted on the site drawings indicating where fixed/temporary signage is required.

12.9.5 Temporary signage is to include (but not be limited to) the following:

- a) "Warning: Construction Site – Keep out" or similar.
- b) 'First aid box positions (including vehicles); and where one is working
- c) Fire extinguishers.

12.9.6 Signs shall be posted at areas of work on site indicating that a construction site is being entered and that persons should take note of H&S requirements.

12.9.7 The Contractor shall establish a system for controlling and recording entrance to the Site office and camp area.

12.9.8 Failure to comply will result in penalties being applied.

12.10 Induction of Employees and Visitors, General H&S Training (to be done at office/ workshop)

12.10.1 A formal induction programme is to be submitted as an addendum for approval with the H&S plan.

12.10.2 Inductions must be carried out for all workers and visitors (including Client, Designers) to the site.

12.10.3 Pre-task training is required to ensure workers are familiar with the risks and H&S measures of the work or tasks to be done.

12.10.4 Such training is to be done at least weekly.

12.10.5 Records of inductions and pre-task training are to be kept in the H&S file.

12.10.6 Any person found on site without proof of induction will be removed from site until the proof is supplied and, and a penalty issued per non-compliance.

12.11 Public and Health and Safety

12.11.1 The Contractor shall ensure that each person working on or visiting a site, and the surrounding community, shall be made aware of the dangers likely to arise from on-site activities and the precautions to be observed to avoid or minimize those dangers. Appropriate health and safety signage shall be posted at all times.

12.11.2 Warning notices are to be provided at the main entrance to area of works to each hospital facility, notifying that construction work is taking place within the existing buildings.

12.11.3 Hoardings are to be inspected daily and monitored during working hours.

12.12 Awareness

12.12.1 The Principal Contractor shall ensure that, on site, periodic toolbox talks take place at least once per week at a workshop or office area.

12.12.2 These talks should deal with risks relevant to the construction work at hand.

12.12.3 A record of attendance shall be kept in the Health & Safety File.

12.12.4 All Contractors must comply with this minimum requirement.

12.12.5 At least one of the Toolbox talks shall include an environmental related issue.

12.12.6 The Principal Contractor is to ensure that the Hospital Management & Staff are kept informed of any change in the situation regarding the risks and hazards relating to the construction work on the site.

13. MANAGEMENT OF PLANT AND EQUIPMENT

13.1 Construction Plant (where necessary)

13.2 Construction Plant” includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment.

13.3 The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993 and Construction Regulations 2014

- a) The Principal Contractor and all relevant Subcontractors shall inspect and keep records of inspections of the construction plant used on site.
- b) Only authorised/competent (certified) persons are to use machinery under proper supervision.
- c) Appropriate PPE and clothing must be provided and maintained in good condition at all times.
- d) Proof of medical evaluations as required by the Construction regulations is available for inspection by the Client.

13.12. **Plant & Equipment**

- a) Close control of plant and equipment is required, including that of Contractors.
- b) Daily monitoring of all plant and equipment is required prior to commencing work.
- c) Full lists of hired and own plant are to be available at the H&S Agent's/Client audit.
- d) All daily inspection records are to be kept in the H&S file where plant and equipment is brought on to site.
- e) Registers are not to be more than 1 week behind.

13.13. **Operators**

- a) Only competent, fit plant operators are to be used.
- b) Medical certificates of fitness are required for all operators.
- c) Operators are to be adequately trained and certified to operate mobile cranes or crane trucks.
- d) Certificates and registers are to be placed in the H&S file.
- e) Failure to do so will be considered a serious offence.

13.14. **Machinery and Power Tools**

- a) Only authorized competent persons are to operate machinery and power tools.
- b) Appropriate PPE and clothing must be provided, used and maintained.
- c) No unsafe / dangerous equipment or tools may be brought onto, or used, on the site.

- d) The Client / Principal Agent reserve the right to inspect all tools and equipment at any time and to prevent / prohibit their use, if found to be unsafe, without any penalty to the Client and without affecting the terms of the contract in any way.
- e) The Contractor may not use any machinery or power tools belonging to the Hospital.

13.15. Portable Electrical Tools/Equipment and Explosive Powered Tools

- a) The Principal Contractor shall ensure that use and storage of all explosive powered tools and portable electrical tools are in compliance with relevant legislation.
- b) The Principal Contractor shall ensure that all-electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order.
- c) The Principal Contractor is to ensure that extension cables and temporary power supplies do not impede access ways or escape routes.
- d) Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measures to be implemented e.g. personal protection equipment, guards, etc.
- e) The Principal Contractor shall ensure the following:
 - i. A competent person undertakes routine inspections and records are kept.

13.16.e.1. Only authorized trained persons use the tools.

13.16.e.2. The safe working procedures apply.

13.16.e.3. Awareness training is carried out and compliance is enforced at all times.

13.16.e.4. PPE and clothing is provided and maintained.

13.16.e.5. Electrical cables must be free from any damage.

13.16.e.6. Electrical tools & equipment may not be exposed to water.

13.16.e.7. Signs to be posted up in the areas where explosive powered tools are being used.
(WARNING - EXPLOSIVE POWERED TOOL IN USE - KEEP CLEAR).

13.16.e.8. That prior arrangement is made with the facility Maintenance Supervisor before any explosive powered tools are used.

13.16. Hired Plant and Machinery

- a) The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use.
- b) The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (February 2014) shall apply.
- c) The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file.
 - i. This includes medical certificates of fitness to operate construction vehicles and appointment of the operator.
 - ii. All relevant Contractors must ensure the same.
- d) Daily inspections must be recorded by each operator.
 - i. A copy of the machines service logbook & planned maintenance schedule must be supplied with the machine.
- e) Operators must be trained on the relevant risk assessments and safe working procedures.
- f) The hired plant company must provide proof of registration with Workman's Compensation or FEM before delivery of plant to site.
- g) The Hire Company must be required to sign a 37(2) Mandatory Agreement with the hire company before commencing with work. (Applicable if an operator is supplied with the machine.

13.17. Hand tools

- a) No handmade or damaged tools may be used on site.
- b) The Principal Contractor needs to exercise control over all contractors on site.
- c) Hand tools may only be used for its intended purpose.
- d) A competent person must be appointed to inspect hand tools monthly.
- e) Inspections need to be recorded on a register and each tool identified with a unique number.

13.18. Inspection of equipment and tools.

- a) The following items of equipment must be inspected weekly and maintained, and appropriate records kept.
 - i. First Aid dressing registers
 - ii. Fire equipment
 - iii. Lifting equipment
 - iv. Lifting Gear
 - v. Portable electrical equipment
 - vi. Stacking and storage inspections
 - vii. Explosive power tools
 - viii. Hazardous Chemical Substances (HCS) Materials hoists (where applicable)
 - ix. Ladders
 - x. Excavations
 - xi. Safety harnesses
 - xii. Scaffolds - static and mobile.
 - xiii. Pneumatic tools
 - xiv. Construction vehicles and mobile plant.
 - xv. Health and Safety Representatives checklists.

13.19. Barricading / Hoarding

- a) The Principal Contractor shall ensure that his / her employees do not mix with hospital personnel to avoid biological risk.
- b) The working area will be barricaded so that only Principal Contractor's employees are in the working area.
- c) The movement of employees will be restricted.

13.20. Cranes and lifting equipment. (Where Applicable)

- a) Should any form of lifting device or crane (fixed or mobile) be used during the project for deliveries, moving of supplies or equipment, the appropriate documentation must be made available.
- b) The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (section 20).
- c) Method statements, risk assessments, safe work procedures and training are to be available prior to work commencing.

- d) A procedure for managing loads and lifting must be made available as an addendum to the H&S Plan.
- e) There must be competent lifting machinery and tackle inspector who must inspect the equipment daily or before use, considering that:
- f) All lifting machinery has a safe working load clearly indicated.
- g) All lifting equipment is clearly marked with a unique number and safe working load.
- h) Regular inspection and servicing is carried out:
 - i. Lifting Machinery load test – every 12 months
 - ii. Lifting Machinery Inspection & service – every 6 months
 - iii. Lifting Tackle Load test – every 12 months
 - iv. Lifting Tackle Inspections – every 3 months
- i) Records are kept of inspections and of service certificates.
- j) Any plant or slings used to lift plant or material requires annual load testing by an AIA, and all certificates must have the testers LMI/E number.
- k) There is proper supervision in terms of rigging & guiding the loads that includes a trained banks man to direct lifting operations and check lifting tackle.
- l) The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness to be available on site.

14. WORKING PROCEDURES

14.1 Site Works and Excavations

- a) A competent person is to be appointed in writing to supervise the Site Works and Excavations.
- b) A method statement on the procedures relating to the diversion of existing services and the maintenance of services to the existing facilities is to be agreed between the Contractor and the Principal Agent prior to the commencement of the work.
- c) The Contractor is to ensure Risk Assessments & Safe Working procedures have been communicated to the workers before any work is commenced.

14.2 Excavations

- a) A procedure for managing excavations is to be provided as an addendum to the H&S plan describing how excavations are to be managed.
- b) Excavation method statements are to be approved by the Designer and associated risk

assessments are required.

- c) All Excavations are to be properly barricaded and demarcated. The project will not have deep excavation due to the nature of maintenance projects. It is anticipated that the worst excavation will be from 300mm – 700mm.

14.3 Mechanical installations

14.3.1 All mechanical installations are to be carried out in conformity with the manufacturer's instructions.

14.3.2 Method statements and risk analyses must be compiled for each type of installation.

14.3.3 A competent person must be designated to supervise the work.

14.4 Electrical work

14.4.1 In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection.

14.4.2 Leads must be properly and firmly connected.

14.4.3 Plugs and sockets shall be in good and safe condition.

14.4.4 All electrical apparatus, other than electrical hand tools, shall have a physical "lock out" system which will prevent any operation other than that authorized by a supervisor.

- i. A "lock out" sign shall be displayed when the apparatus is not in use.

14.4.5 Method statements and safe work procedures will be required for all work involving electrical apparatus.

14.4.6 Because there is a serious threat of flashover, shock, arcing etc. When working in a medium voltage environment, lower voltage tends to be treated with less respect. It must be remembered that a voltage as low as 50Volts, with a current of +-30 milliamps cause asphyxia and /or heart muscle fibrillation.

14.4.7 The biggest danger of electricity is that live and dead apparatus are indistinguishable from each other. Therefore, apparatus must never be assumed dead. Always presume it is live. This can only be ascertained by safety testing with the appropriate approved tester. Or by the presence of visual earth connections.

14.4.8 Electricity can jump gaps, which means that it is not even necessary to touch a medium voltage conductor to get hurt. Merely approaching too close can have fatal results, therefore it is necessary to maintain proximity distance.

CLOSE PROXIMITY

Close proximity is the minimum distance any part of a person's body or work tool may encroach to any unearthed, bare LV conductors or any unearthed and unscreened MV/HV conductor.

RATED VOLTAGE	CLEARANCE
Up to 11kV	0,2m
Exceeding 11 KV, but not exceeding 33KV	0,43m
Exceeding 33KV, but not exceeding 132KV	1.45m
Exceeding 132KV but not exceeding 275KV	2,35m

15. AUDITING

- a) Frequency of external auditing by the Client or client's agent will be as agreed with the Client and Designer but will at least conform to the requirements of the Construction Regulations.
 - i. The site will be inspected, and the documentation audited relative to the activities and H&S plan.
 - ii. The H&S Officer of the PC must accompany the Client, or the H&S Agent, on all audits and inspections.
 - iii. Not all audits will be, or need be announced.
- b) The PC will ensure that all their Contractors are audited at a frequency determined by the H&S Agent.
 - i. Audit frequency may be increased if Contractors are not performing adequately.
 - ii. Audit results will be acted upon and non-conformances and penalties issued where deemed appropriate.
 - iii. The Client, Designer or H&S Agent may act or require further outcomes if non-compliances are noted or unsafe acts are noted on site.
- c) Internal audits are to include site conditions as well as ensuring H&S files are appropriate, and compliant.
 - i. Comprehensive audit reports are to be made available; the format of the audit reports is to be acceptable by the H&S Agent.
- d) The PC will be audited using a template as supplied in the tender document.
 - i. The audit template will be adjusted from time to time relative to the activities on site.
 - ii. A similar process is to be used by the PC when auditing their Contractors on site.
 - iii. Compliance with legislative requirements and the systems provided by the PC to manage the H&S on site will be measured.
 - iv. Full compliance is required. Time limits for corrective actions will be set and must be adhered to. The Principal Contractor will be expected to submit a closeout report within 3 working days after the receipt of audit.
- e) Failure to address findings or non-conformances will be considered a serious offence.

16. OCCUPATIONAL HEALTH

16.1. Communication

- a) All H&S communication during the project between the Client and the PC will be done through the Client's agent and be in writing, including the issue and responses to non-conformances and H&S audit results.
- b) Failure to address issues timeously will be considered a serious offence.
- c) To be done at DEPOT/ OFFICE before getting to premises.

16.2. Care of Workers on Site (Welfare)

- a) Clean, safe drinking water.
- b) Hand washing facilities to be arrange with facilities.
- c) Arrangements made where existing facilities are shared with existing users must be made in writing and placed in the H&S file.
- d) Failure to manage specific conditions or address issues timeously will be considered a serious offence.

16.3. Discipline. Alcohol and Substance Abuse

16.3.1. All employees (management included) are to follow instructions given in the interest of H&S.

16.3.1.a.1. Disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies.

16.3.2. No person can work or access site if under the influence of alcohol or other substances that could impact on their own or others safety.

16.3.2.a.1. The PC is to have a drug and alcohol policy available to manage such instances.

16.3.3. These requirements are applicable to any employee of any organization providing services on site.

16.3.3.a.1. Penalties may also be applied by the Client, OHS Agent, Engineer or Principal Agent.

16.4. Compliance with the Rules of Conduct.

16.4.1. The Principal Contractor, Subcontractors and all employees under their control, including any visitor brought onto site must adhere to the Rules of conduct on site, as listed under Section 12.28.

16.4.2. These Rules of Conduct must also be adhered to by any of the following who visit the Site:

- i. Electrical & Mechanical Engineering
- ii. Hospital Management and Staff
- iii. ECDoh Employees
- iv. Direct Contractors
- v. Trade Representatives
- vi. Any other visitors to the Site.

16.5. Electrical Equipment

- i. In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection.
- ii. Leads must be properly and firmly connected.
- iii. Plugs and sockets shall be in good and safe condition.
- iv. All electrical apparatus, other than electrical hand tools, shall have a physical "lock out" system which will prevent any operation other than that authorized by a supervisor.
 - 1. A "lock out" sign shall be displayed when the apparatus is not in use.
- v. Method statements and safe work procedures will be required for all work involving electrical apparatus.

17. SAFETY RULES WITH RESPECT TO WORK TO HEALTH CARE FACILITIES

- a. All persons on the premises shall obey the ECDoh & facilities' Health and Safety rules, procedures and practices.
- b. No smoking will be permitted within the buildings or within the buildings under construction. Smoking will take place in the designated area.
- c. All work shall be carried out within normal working hours except certain essential works which may need to be carried out after hours or over weekends – arrangements for such work to be agreed in advance between the Contractor and Principal Agent.
 - i. Note: That on this contract it is assumed that work will take place 7 days a week

including after hours and at night as required.

- ii. The Contractor is to agree the weekly work schedule in advance with the Client's Agent.
- d. All workers are to be instructed in and familiarize themselves with the existing emergency and safety procedures and to co-operate in any drills or exercises which might be held by the Hospital.
- e. Emergency / Firefighting equipment belonging to the premises is not to be interfered with.
- f. Emergency Exits and Escape Routes, including Temporary Escapes Routes are not to be obstructed.
- g. No persons shall carry out or initiate an unsafe / unhygienic act or operation whilst on the premises.
- h. Workers are not to interfere with the duties of the hospital, its staff, patients or visitors.
- i. The Contractor shall maintain good housekeeping standards in the areas being worked on throughout the duration of the contract.
- j. All waste / scrap materials are to be removed from the work areas on an on-going basis and should not be allowed to accumulate.
- k. The Client and facility Management reserves the right to act in any way necessary to ensure the safety and / or security of any persons or equipment on its premises and will not be liable for any costs incurred or loss evoked by such actions.
- l. The Client and health facility Management reserves the right to search all vehicles entering, leaving or parked on the premises and to inspect any parcel, package, handbag, tog-bag or suitcase.
- m. The health facility reserves the right to search any person entering or leaving the health facility premises.
- n. All workers must wear proper identification labels at all times – The Contractor will be asked to remove persons without identification from the premises.
- o. The Contractor will not be permitted to use any tools or equipment belonging to the health facility.

- p. The Contractor is to ensure that noise is kept to a minimum so as not to unduly interfere with the functioning of the adjacent facilities.
- q. The Contractor is to ensure that dust from the works is properly contained so as not to cause problems with the normal functioning of the adjacent facilities.

18. PROJECT SPECIFIC RISKS

18. 1. Risk Associated with electrical installation and maintenance

- a) Electric shock.
- b) Burns from contact with live parts
- c) Injury from exposure to arcing (when electricity jumps from one circuit to another)
- d) Fire from faulty electrical equipment or installation
- e) Toxic exhaust fumes
- f) Moving and rotating equipment
- g) Explosion caused by unsuitable electrical equipment
- h) The limiting of noise & vibration from maintenance activities.
- i) Keeping the escape routes clear and unobstructed.
- j) Working in confined spaces.
- k) Restricted access for materials and work areas.
- l) Encountering biological hazards
- m) Encountering Medical waste

18. 2. HEALTH AND SAFETY FILE

- 18.2.1. The documentation submitted and approved following the awarding of the contract will be used to form the H&S file.
- 18.2.2. The H&S file is required to be laid out in a logical manner, and documentation filed within the file is to be easily accessible.
- 18.2.3. The following completed information shall be included (but not be limited to) as part of the index:
 - a. The PSHSS;
 - b. The H&S Plan and the approval by Client;
 - c. Appointment by Client;
 - d. Mandatory agreement with Client;
 - e. Notification of construction work;
 - f. A record of all working drawings, calculations and design where applicable;
 - g. Detailed list of Contractors with contact details, appointments, Mandatories etc., H&S specifications issued;
 - h. Record of Competencies (CVs) and appointments;
 - i. Training Records;
 - j. Permits;
 - k. Method statements;

- l. Risk assessments;
- m. Safe work procedures;
- n. Emergency and injury management;
- o. Safety data sheets
- p. Medical surveillance records;
- q. Registers;
- r. Records of audits, minutes etc.
- s. Plant lists
- t. Temporary electrical installations
- u. Employee records (who is on site)

19. NON-CONFORMANCES

19.12. Should, at any time, the works, or part of the works, be stopped due to unsafe acts or non-compliance with the Clients or PCs H&S Plan; neither the PC nor any other Contractor shall have a claim for extension of time or any other compensation.

19.13. The following constitute examples of the types of non-conformances that will attract penalties:

Minor: Penalty: R50/count	Medium: Penalty: R500/count and a non-conformance	Severe Penalty: R5000/count, a non-conformance and/or activity stoppage
Non-use of PPE supplied	Toilets not supplied or regularly serviced, lack of drinking water	Contractors working without Health and Safety Plan approval
Non-completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHSplan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate, approved H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	Non-compliance with traffic accommodation requirements: layout or physical conditions.
	No monthly OHS report on site meeting to report on	Any serious breach of legal requirements.
	No certificates of fitness for workers as required	Working at heights without the necessary PPE relating to work at heights.
	Working without approved method statements	

19.14. Failure to Comply with Provisions

- a) Failure or refusal on the part of the PC or their Contractors to take the necessary steps to ensure the safety of workers and the general public in accordance with these specifications or as required by statutory authorities or ordered by the engineer, shall be sufficient cause for the engineer to apply penalties as follows:
- A penalty as shown in the Table above shall be deducted for each occurrence of non-compliance with any of the requirements of the PSHSS.
 - In addition, a time-related penalty of R500,00 per hour over and above the fixed penalty may be deducted for non-compliance to rectify any non-conformance within the allowable time after a site instruction to this effect has been given by the Designer.
 - The site instruction shall state the agreed time, which shall be the time in hours for reinstatement of the defects.
 - Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

RESPONSIBILITY	SIGNATURE	DATE
CLIENT'S AGENT SIGNATURE:		
CLIENT SIGNATURE:		

ANNEXURE A

Acknowledgement of the H&S Specification by Principal Contractor

Construction Health & Safety Specification

Issued in terms of the Occupational Health and Safety Act, 1993

Construction Regulations, 2014

I, _____ representing _____
_____ Principal Contractor have satisfied me with the content of this Construction Occupational
Health and Safety Specification and shall ensure that the Principal Contractor, all contractors and sub-contractors and all
employees on site comply with it.

Signature of Principal Contractor

Date

Signature of Agent

Date

This document must be signed and returned to the Pr. Construction Health and Safety Agent.

ANNEXURE B

CLOSE OUT REQUIREMENTS

The H&S files for the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project. The following list is an example of what should be included, but is not exhaustive. The OHS Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are met. Documentation would include all records from the start of the project. Daily or monthly plant inspection records are not required unless they are related to an accident. All records to be in electronic format and submitted to the OHS agent for approval in adequately formatted lists and folders. Layout should be logical and in the same order as in the site files.

Health and Safety close out file requirements include:

- a) Client H&S Specification
- b) Principal Contractor's OHS Plan(s)
- c) Organograms
- d) Legal Appointments
- e) List of all employees employed on a permanent or contractual basis over the duration of the contract
- f) Notification to Department of Labour of commencement of work
- g) Letters of Good Standing for the Project
- h) Full files for all Contractors as well as their close out reports
 - List of Contractors
 - All employees employed on a permanent or contractual basis over the duration of the contract
 - Letters of Approval of Contractors
 - Mandatary Agreements
 - Letters of Good Standing
 - Appointments
- i) Incident Records
- j) Non- Conformance records
- k) Agent's Audits
- l) Method Statements
- m) Risk assessments
- n) Safe work procedures
- o) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended
- p) All drawings for temporary structures (suspended beams/scaffolds etc.)

- q) All operating manuals for any systems that require on-going maintenance
- r) Copies of test results, policies and procedures for environmental monitoring (silica, noise, dusts etc.)

Defect and Liability Period

The H&S files are to be kept 'live' for the defect and liability period by the Principal Contractor, including those of their Contractors. Any work required during the defect and liability period will require an assessment of the H&S file by the OH&S Agent prior to any work commencing.

A copy of drawing records for the as-built drawings are to be placed on file by the Designers once complete.

ANNEXURE C: NON-CONFORMANCES

HEALTH AND SAFETY SITE INSPECTION		
NON-CONFORMANCE NO		
AGENT:		PROJECT:
Consultant:		Date and time:
Client		Area:
Contractor:		
ASPECTS NOTED:	COMMENTS:	COMPLETION REQUIRED BY (DATE):
	•	
	•	
	•	
	•	
	•	
PHOTOGRAPHIC EVIDENCE (if available):		
OTHER:		
The following penalties are to be applied:		
Signature of H&S Officer/Site Agent		
Signature: of Client/client's Agent		

ANNEXURE D: PRINCIPAL CONTRACTOR MONTHLY HEALTH AND SAFETY REPORT

(To be submitted by the end of the first week of each month and be available with each audit)

CONTRACT NUMBER:		PROJECT NAME:	CONTRACT DETAILS:
1	GENERAL ACTIVITIES FOR THE MONTH (detail each area of work)		
2	NUMBER OF WORKERS (permanent and local, contractors)		
3	TRAINING DONE (supplier, no of people, type)		
4	INCIDENTS / ACCIDENT (list number and details, attach reports)		
6	NON-CONFORMANCES (closed out or active)		
7	CONTRACTORS (list, approval status)		
8	AUDITS COMPLETED (internal and external)		
9	CRITICAL ISSUES		

10	GENERAL	

Health and Safety Officer: _____ **Signature:** _____

Date: _____

Construction Manager: _____ **Signature:** _____

Date: _____

ANNEXURE E - Guidelines to Health and Safety Bill of Quantities

DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
				R	C
Preparation of principal contractor's site-specific health and safety plan, safety file, risk assessments, fall prevention/protection plan, Annexure 2 notification to Dept. of Labour, demolition method statement, other method statements requested to be prepared for safety reasons, permits, amendments to safety plan during course of project, traffic management /accommodation plans, and any other legally required health and safety documentation	Lump sum	Lump sum			
Provision of current workman's compensation cover for employees for the project, and ensuring that contractors appointed have such cover too	Lump sum	Lump sum			
Health and safety management of principal contractor's employees, visitors, and contractors' employees on site.	Lump sum	Lump sum			
Provision of full time Construction Manager for site, provision of Alternate Construction Manager in absence of Construction Manager and provision of sufficient safety supervision on site	Lump sum	Lump sum			
Provision of full time SACPCMP registered Construction Health & Safety Officer for site (refer to safety specification for full time / part time requirement) and preparation of safety reports after each safety inspection	Lump sum	Lump sum			
Competence assessment, appointment and required competence and safety training of all principal contractor's legally required appointments for site	Lump sum	Lump sum			
Maintenance of principal contractor's plant and equipment on site so as to be in safe condition, including inspection registers, inspections by competent persons, thorough examination certificates, hand over certificates and related documentation	Lump sum	monthly			
Provision of general safety signage (e.g., first aid, firefighting, traffic safety, excavations, PPE, Assembly Point, noise zones, etc.)	Lump sum	monthly			
Each Bakkie to have Safety File for Emergency and registers	Lump sum	Lump sum			
DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
				R	C
Provision of medical certificates of fitness for employees on site (Annexure 3)	Lump sum	Lump sum			

Provision of personal protective equipment (PPE) by principal contractor to employees and, as applicable, visitors to site, incl. • reflective vests • hard hats • protective footwear • hearing protection	Lump sum	Lump sum			
--	----------	----------	--	--	--

• respiratory protection • safety eyewear • gloves • overalls • Safety harnesses and lanyards • Sunblock • UV Protective clothing / hats / eye wear • Protective thermal wear (heat / wind / cold / rain) • Protective firefighting clothing • Arc flash and electrical protective clothing • Spill Kits					
Provision of Fall Prevention and Protection Equipment including. • Rope • Lifelines & Self-Retracting Lifelines (SRL) • Anchor Points • Warning Lines & Areademarcation • Fall Arrest Accessories • Fall Rescue Equipment • Passive Fall Protection Equipment • Confined Space Rescue and Retrieval (In elevated work situations) • Etc.	Lump sum	Lump sum			
Provision of Confined Space work equipment & Training • Training • Air Monitoring Equipment • Ventilation Equipment • Entry Equipment • Personal Protective Equipment • Confined Space Rescue and Retrieval Equipment • Communication Equipment • Etc.	Lump sum	Lump sum			
Holding of safety meetings with safety representatives and safety officers at workshop on at least weekly basis	Lump sum	monthly			

DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
				R	C
Principal contractor construction safety management attendance at health and safety meetings called by client, professional team, or safety agent	Lump sum	monthly			
Provision of site-specific health and safety induction training for all at Workshop / Office	Lump sum	Lump sum			
Conducting of toolbox talks to employees on health and safety issues on a weekly basis at Workshop or office	Lump sum	Lump sum			
Provision of sufficient First Aiders for site as per legal requirements	Lump sum	Lump sum			
Provision of First Aid Boxes per bakkie as per legal requirements	Lump sum	Lump sum			
Provision of sufficient fire extinguishing equipment per bakkie.	Lump sum	Lump sum			
Fire drills on site at least 1-monthly basis for duration of project	Lump sum	Lump sum			
Provision for safe disposal of waste, spill kits, safe housekeeping, and storage practices	Lump sum	Lump sum			
Provision of leading-edge protection, covers to prevent falls	Lump sum	Lump sum			
Compilation of consolidated Safety File at Close Out stage and handover of file to safety agent in hard copy or digital format	Lump sum	Lump sum			
Any other compliance item in site specific safety specification issued by project client/ safety agent with potential cost implication	Lump sum	Lump sum			
• Item 1					
• Item 2					
• Item 3					
• Item 4					
• Item 5					
Principal contractor's general compliance with respect to the Occupational Health and Safety Act, Construction and other health and safety Regulations apart from other provisions in this bill.	Lump sum	Lump sum			
SUMMARY TOTAL OHS COST PROVISION					

**ANNEXURE F – SAFETY SPECIFICATION AND BASELINE RISK
ASSESSMENT ISSUE REGISTER**

Date of Original Safety Specification Compilation	Compiled By	Issue Date
15 th September 2023	J Bhana	18 th September 2023

Revision Summary	Revised By	Revision Date
	Eric Nqampi	27 August 2024

Acknowledgement:

I, _____ representing.

_____(Contractor), have satisfied myself with the content of this Health and Safety Specification and shall ensure that our employees and contractors on site comply with the requirements of this document, our safety documentation and health and safety legislation.

Signature of Contractor

Date

Comments:

BASELINE RISK ASSESSMENT FOR MAINTENANCE OF MEDIUM VOLTAGE FACILITIES IN AMATHOLE DISTRICT AND BCM

TYPE OF REPORT			BASELINE RISK ASSESSMENT					 Eastern Cape Government HAZARD IDENTIFICATION AND RISK ASSESSMENT			 EQ Project Managers & Safety Solutions PTY (Ltd) Est. 2012 <i>Safety is not just a slogan its life & future</i>						
COMPILED BY			ERIC NQAMPI														
DATE OF ASSESSMENT			16 August 2024														
DATE OF REVIEW			17 August2024														
SCOPE OF WORK			Maintenance of Medium Voltage														
REVIEW DATE			EVERYONE (1) year or after reportable incident or change in scope of work.														
Probability Index	5	Almost certain to inevitable	Severity index injury /disease	5	Fatal	Severity index (Production)	5	No production for at least 12 months	Severity index due to Environment	5	Permanent effects	Severity index (Financial impact)	5	Greater than R500 000.00	Frequency index	5	Hazards permanently present
	4	Probable		4	Permanently disabling injury		4	Loss of 1 month or more		4	Long term > 2 years		4	R100 000. 00 – R499 999,00		4	Hazards arises every week
	3	Improbable		3	Likely to be absent for more than 14 days		3	Loss of 1 week in production		3	Medium – 6 months to 12 months		3	R10 000.00 – R99 999.00		3	Hazards arises every month
	2	Less than even a chance		2	Medical recovery within 14 days		2	Loss of 1 day in production		2	Short term 1 day to six (6) months		2	R1 000.00 – R9 999.00		2	Hazards arises every year
	1	Highly improbable		1	First aid only		1	Loss of half day in production		1	Insignifican t effect		1	R0 – R999.00		1	Hazards arises every five (5) years

BASELINE RISK ASSESSMENT FOR MAINTENANCE OF MEDIUM VOLTAGE FACILITIES IN AMATHOLE DISTRICT AND BCM

	0	Not probable		0	Near misses		0	No loss of time but production affected by shock of employees		0	No aspect or impact		0	No cost involved		0	No hazards exists
				PRIORITY OF ACTION						ACTION TO BE TAKEN							
				RISK VALUE	A	75 – 100%		Immediate			Training, Safe Work Practice, Method Statements & detailed action plans						
					B	60 – 74%		Within 1 week			Training, Safe Work Practice, Method Statements & detailed action plans						
					C	45 – 59%		Within 1 month			Training, Safe Work Practice, Method Statements & detailed action plans and registers						
					D	30 – 44%		Within 6 months			Training and Safe Operating Procedures						
					E	15 – 29%		Within 12 months			Training						
					F	0 – 14%		As reasonable			Training						
Ref No.	Sequenc e of Activity in Action	Hazards (Safety, Health, and Environment)	Risk rating E (L + C)				Control Measure					Control Effectiveness Rating					
			Exposur e (E)	Likelihoo d (L)	Consequ ence (C)	Risk Ratin g						Control Type	Control effectiveness rating				
1.	Hazardous Chemical Substances	Exposure to hazardous chemical substances such as chlorine gas, polyelectrolytes and flame retardants.	4	2	3	20	Before any employee is allowed to use HCS, they must be trained and made aware of possible hazards as per MSDS. Correct and relevant PPE should be issued and worn to mitigate any possible risk of exposure.					Administrative and the use of PPE	Good				

BASELINE RISK ASSESSMENT FOR MAINTENANCE OF MEDIUM VOLTAGE FACILITIES IN AMATHOLE DISTRICT AND BCM

2.	Electricity	Electrical shock due to contact with live electrical wire	3	5	3	24	- Develop detailed method statement and ensure that it is implemented. - Exclusion zones to be created with rigid barriers and warning signs. - No machine to be operated in an area where any part of machine or equipment can contact electrical wire. - All persons to be provided with training in the hazards associated with live electrical wire. - Provide employees with relevant PPE	Combination of Administrative process and PPE	Satisfactory
	Electricity	Electrical shock or electrocution due to the use of unsafe electrical equipment (including generators)	3	5	3	24	- Electrical equipment to be inspected by an authorised operator or inspector daily prior to use. - Details of these inspections to be recorded in a register which will be always kept on site.	Administrative	Satisfactory
	Electricity	Electrical shock or electrocution due to contact with live overhead power lines	3	5	3	24	Electrical artisans need to be mindful of existing electrical wires. Before any equipment is used on a work site, an assessment should be carried out and reports of such assessments kept in the Contractor's SHE file.	Administrative	Satisfactory
3.	Excavation work will not exceed 500 mm because the project is a maintenance	Excavated trenches left open resulting in employees and members of the public tripping and falling causing injuries.	4	3	5	32	- All excavation work must be supervised by a competent person who is appointed in writing as an excavation's supervisor. - All excavations must be inspected, and a register must be kept in the contractor's OHS file. - All open excavations must be barricaded off with a high visibility orange and yellow net that is not shorter than 1 meter in height. - Signs warning of open excavations must be installed. - No excavations or trenches may be left open over weekends and public holidays.	Administrative Engineering solution	Good

BASELINE RISK ASSESSMENT FOR MAINTENANCE OF MEDIUM VOLTAGE FACILITIES IN AMATHOLE DISTRICT AND BCM

4.	Loading, offloading and installing.	Loading and offloading of heavy electrical equipment e.g. telemetry equipment, 11kV switchgear and associated 440 V cables, MCC and DB boards and attributed components crushing limbs etc.	3	3	6	27	Train employees on safe lifting techniques, reduce the weight of items to be lifted and use the appropriate mechanical equipment to lift heavy items.	Administrative	satisfactory
5.	Portable Electrical Equipment	Noise will be generated by portable electrical equipment which will lead to noise induced hearing loss	2	2	3	10	Principal Contractor to provide PPE (Ear Protection). Workers should be rotated to reduce exposure. Noise must be measured and if found to be more than 85 decibels, the contractor must provide means to mitigate the impact.	Administrative	Satisfactory
6.	Removal of old services	Unsafe removal of underground services leading to electrocution, waterline bursts/disruption in supply of services.	4	5	4	36	- The Principal Contractor must ensure that the removal of old services is included in the health and safety plan. A detailed method statement must be submitted for review and approval before any work can be carried out. Such plans must be shared with the employees once approved. - Employees must be provided with the relevant PPE such as gloves and goggles.	Administrative	Good
7.	Mistakes in operation by employees and operators	Lack of training leads to mistakes, use of equipment incorrectly	4	5	4	36	- All employees on site to be properly inducted. - Competent supervision to be provided on site.	Administrative	Good

BASELINE RISK ASSESSMENT FOR MAINTENANCE OF MEDIUM VOLTAGE FACILITIES IN AMATHOLE DISTRICT AND BCM

8.	Housekeeping	Housekeeping not being maintained daily. Generated waste, scrap and debris not removed from site at reasonably appropriate intervals. Construction areas near occupied offices not sufficiently hoarded.	4	3	4	28	- Housekeeping to be maintained daily. - Hoarding must be maintained daily and must be kept up to standard.	Administrative	Good
9.	Oil and attributed tools and equipment.	Oil, diesel, petrol, and grease spillage Oil/ grease being flushed down drains	3	4	3	21	- All cleaning and servicing of plant and equipment to be conducted in a controlled manner and working area. - No oil or grease to be disposed of down drains or into the stormwater systems. - Empty oil/ grease containers to be removed from site and disposed of as per regulations on disposal of hazardous chemical waste.	Administrative	Good
10.	Working on the live Hospital	Hospital personnel mixing with the construction workers and employees getting infected. Biological risk	4	5	5	40	- The Principal Contractor is expected to cordon off the area where the work is executed. - Signage to be provided along with the hoarding - Ensure that the workers remain in the working area and are maintaining the hoarding regularly so that it remains intact.	Administrative	Good
								Administrative	Good

BASELINE RISK ASSESSMENT FOR MAINTENANCE OF MEDIUM VOLTAGE FACILITIES IN AMATHOLE DISTRICT AND BCM

		Hospital patients mixing up with construction workers may infect the employees through aerosols and breathing.					Hoarding should be implemented to separate the hospital patients, and the staff so that they do not meet each other.		
11.	Servicing the machines	Soil pollution due to leaking oils. Area becoming slippery due to oil spillage. Contamination of water resources	2	2	3	10	Ensure that drip tray is inserted underneath the machine been serviced.	Administrative	Good
12.	Use of Crane to deliver a transformer / Generator	Crane can have the following challenges: - Irregular movements - Swinging - Dropping the load - Hitting electrical overhanging wires	2	3	4	14	- Ensure that the work is supervised by competent person - Make sure that the ground where the Crane is placed is firm and levelled. - Reduce the exposure to danger by allowing only those who really needs to be there. - Barricade the area where the rigging is taking place - Ensure that weather is conducive to offload the equipment.	Administrative and Engineering	Good



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HEALTH

1. A risk level is attributed to each circumstance in the following manner

- Low Risk = 1 – 15
- Medium Risk = 16 – 30
- High Risk = 31 – 50

2. Risk Ranking calculation

2.1 Consequence

- Medical Treatment only or less (minor injury) = 2
- Average Lost Time Injury = 4
- Major Injury = 6
- Fatality or Permanent disabling injury = 8

2.2 Probability

- Not likely to occur in our lifetime = A
- Could occur = B
- Has happened = C
- Common Occurrence = D

2.3 Calculation of Risk

- Consequence = probability x frequency

3. Evaluation of results

Activities listed in the high-risk zones must be seen as tasks requiring immediate attention. Administration will in most instances solve some of the problems satisfactory, administration would involve training and awareness programmes to educate employees about the hazards and risks associated with their tasks.

An implementation plan must be devised to address the outstanding issues which may need engineering solution or PPE if all attempts fail. The action plan must be cognisance of the specific hazards that need to be eliminated.

4. Assessment Team

The following professionals were involved in the design of this baseline risk assessment for the installation of mechanical and electrical components for healthcare facilities:

Eric Ngampi – Pr. CHSA
Dunyiswa Nosana:CHSO
Siviwe Dandala: CHSO

5. Task Specific Risk Assessment

Should the baseline risk assessment indicate tasks in high-risk zone, a specific task risk assessment must be conducted. The assessment will then target the specific tasks and hazards attached to the identified activity.

6. Required and Existing Control Measures

- Safe Work Procedures
- Training
- Medical Examination
- Supervision
- Risk assessment
- Mitigation measures
- Consequence management



Province of the
EASTERN CA
HEALTH



**ENVIRONMENTAL MANAGEMENT PLAN
FOR
EASTERN CAPE DEPARTMENT OF HEALTH
GENERAL MAINTENANCE AND REPAIRS
OF
MEDIUM VOLTAGE (MV) EQUIPMENT AT
VARIOUS HOSPITALS AND HEALTH FACILITIES IN THE
BUFFALO CITY METROPOLITAN MUNICIPALITY & AMATHOLE
DISTRICT**

DOCUMENT REF No:

240812082026 AUGUST 2024

COMPILED BY: MRS NG NKONKI COMPANY:

NOANLILE CONSULTING ENGINEERS



**11 LAGOON VIEW DRIVE, BEACONBAY, 5241,
EAST LONDON**

DEFINITIONS

Environmental Management Plan: A detailed plan of action prepared to ensure that recommendations for enhancing or ensuring positive impacts and limiting or preventing negative environmental impacts are implemented during the life-cycle of a project. This Environmental Management Programme should preferably form part of ECDOH's Environmental Management System and ISO 14001 standard compliance system.

Environment: In terms of the National Environmental Management Act (NEMA) (No107 of 1998), "environment" means the surroundings within which humans exist and that are made up of:

- The land, water and atmosphere of the earth;
- Micro-organisms, plant and animal life, and
- Any part or combination of (i) of (ii) and the interrelationships among and between them; and the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

ECDOH Project/Service Manager: The person appointed by ECDOH from time to time to act in the capacity and notified, by name and in writing by ECDOH to the Contractor, to act as required in the contract.

Environmental Site Manager/Site Supervisor: An individual appointed by the Contractor to be present on site to act on behalf of the contractor in matters concerning the implementation and day to day monitoring of the EMP.

Environmental Control Officer: A person appointed by the Project/Service Manager to monitor environmental compliance of the contractor and produce monthly environmental compliance reports.

Rehabilitation: Is defined as the return of a disturbed area to a state which approximates the state (where possible) which it was before disruption. Rehabilitation for the purposes of this specification is aimed at post-reinstatement re-vegetation of a disturbed area and the insurance of a stable land surface. Re-vegetation should aim to accelerate the natural succession processes so that the plant community develops in the desired way, i.e. promote rapid vegetation establishment.

Contractor: A person or company appointed by ECDOH to carryout stipulated activities. **Site Manager:** The person, representing the Contractor, responsible for all the Contractor's activities on the site including supervision of the workers and activities associated with the construction phase. The Site Manager will liaise with the Principal Agent in order to ensure that the project is conducted in accordance with the Environmental Management Programme.

Incident: An undesired event which may result in significant environmental impacts but can be managed through internal response.

Impact: A description of the potential effect or consequence of an aspect of the development on a specified component of the biophysical, social –economic environment within a defined time and space.

Environmental Impact: A change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services.

Mitigation: Measures designed to avoid, reduce or remedy adverse impacts

Emergency: An undesired event that does result in significant environmental impact and requires the notification of relevant statutory body such as a local or provincial authority.

Waste Disposal Facility: means any site or premise used for the accumulation of waste with the purpose of disposing of that waste at that site or on that premises.

Hazardous Waste Landfill site: A waste disposal site that is designed managed and permitted to allow for the disposal of hazardous waste.

Hazardous Waste: means any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste have a detrimental impact on health and the environment.

Domestic Waste: means waste, excluding hazardous waste that emanates from premises that are used wholly or mainly for residential, educational, health care, sport or recreation purposes.

Building Waste: Building and demolition waste means waste, excluding hazardous waste, produced during the construction, alteration, repair or demolition of any structure, and includes rubble, earth, rock and wood displaced during that construction, alteration, repair or demolish.

ACRONYMS

DESD	Distribution Environmental Screening Document
ECO	Environmental Control Officer
EMP	Environmental Management Plan/Programme
ESO	Environmental Site Agent
IEM	Integrated Environmental Management
I&AP's	Interested and Affected Parties
PPE	Personal Protective Equipment
EP	Environmental Practitioner
OHS	Occupational Health and Safety
WUL	Water Use License
DEDEA	Department of Economic Development and Environmental Affairs
ECDOH	Eastern Cape Department Of Health
MV	Medium Voltage

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1 Introduction

1.1 Objectives

The objectives of the EMP are to:

- Identify arrange of mitigation measures which could reduce and mitigate the potential impacts to minimal or insignificant levels;
- Detail specific actions deemed necessary to assist in mitigating the environmental impact of the project;
- To identify measures that could optimize beneficial impacts;
- To create management structures that address the concerns and complaints of I & APs with regards to the development;
- To establish a method of monitoring and auditing environmental management practices during all phases of the activity;
- Ensure that the maintenance and operational phases of the project continues within the principles of Integrated Environmental Management (IEM);
- Ensure that safety recommendations are complied with and time periods within which the measures contemplated in the final environmental management plan shall be implemented where appropriate

The emphasis of the EMP is to:

- Avoiding impacts by not performing certain actions;
- Minimizing impacts by limiting aspects of an action;
- Rectifying impacts through maintenance, restoration, etc. of the affected environment;
- Compensating for impacts by providing substitute resources or environments;
- Minimizing impacts by optimizing processes, structural elements and other design features;
- Provide ongoing monitoring and management of environmental impact sofa development and documenting of any digressions /good performances;

1.2 Site Location

BUFFALO CITY AND AMATHOLE DISTRICTS: MV INSTALLATION: ASSESSMENTS			
#	Facility	Nearest Town	Co-ordinates
1	ec Bhisho Hospital	Bhisho	Latitude: 32°49'37.70"S Longitude: 27°27'19.54"E
2	ec Cecilia Makhiwane Hospital	East London	Latitude: 32°55'45.56"S Longitude: 27°44'36.93"E
3	ec Nkqubela Hospital	East London	Latitude: 32°55'56.38"S Longitude: 27°44'26.86"E
4	ec Frere Hospital	East London	Latitude: 32°59'46.02"S Longitude: 27°53'30.17"E
5	ec Duncan Village CHC	East London	Latitude: 33° 0'28.02"S Longitude: 27°53'9.85"E
6	ec Empilweni Gompo CHC	East London	Latitude: 33° 0'51.94"S Longitude: 27°50'56.89"E
7	ec Cathcart Hospital	Cathcart	Latitude: 32°17'54.48"S Longitude: 27° 8'10.44"E
8	ec Grey Hospital	Bhisho	Latitude: 32°52'43.24"S Longitude: 27°23'46.81"E
9	ec SS Gida Hospital	Alice	Latitude: 32°40'27.72"S Longitude: 27° 8'39.13"E
10	ec Victoria Hospital	Alice	Latitude: 32°46'36.98"S Longitude: 26°50'46.45"E
11	ec Winterberg TB Hospital	Fort Beaufort	Latitude: 32°46'45.45"S Longitude: 26°39'23.60"E
12	ec Tower Hospital	Fort Beaufort	Latitude: 32°46'11.86"S Longitude: 26°37'22.63"E
13	ec Fort Beaufort Hospital	Fort Beaufort	Latitude: 32°46'50.39"S Longitude: 26°37'59.91"E
14	ec Bedford Hospital	Bedford	Latitude: 32°40'34.72"S Longitude: 26° 4'58.28"E
15	ec Adelaide Hospital	Adelaide	Latitude: 32°42'1.66"S Longitude: 26°17'40.22"E
16	ec Willowvale CHC	Willowvale	Latitude: 32°15'55.49"S Longitude: 28°29'53.39"E

1.2.1 Locality Map – Buffalo City Municipality



1.2.2 Locality Map – Amathole District



2 Management and Monitoring

In order to ensure compliant implementation of the EMP the following roles need to account to their responsibilities.

2.1 Electrical Maintenance Site Supervisor

The Site Supervisor is responsible for overall management of project and EMP implementation.

The following tasks will fall within his / her responsibilities:

- Be familiar with the recommendations and mitigation measures of this EMP and implement these measures;
- Monitor site activities on a daily basis for compliance;
- Conduct internal audits of the maintenance site against the EMP;
- Confine the maintenance site to the demarcated area and rectify transgressions by implementing corrective action

2.2 The Environmental Control Officer

- Monitor the implementation of the EMP during the maintenance phase of the MV Equipment maintenance;
- Be familiar with the recommendations and mitigation measures of the associated EMP for the project;
- Ensure site protection measures are implemented on site;
- Monitor all site activities on a monthly basis for compliance;

-
- Conduct monthly audits of the site according to the EMP, and report findings to the Project/Service manager and Contractor;
 - Recommend corrective action for any environmental non-compliance noted on site;
 - Compile a monthly report highlighting any non-compliance issues as well as progress and compliance with the EMP prescriptions. These monthly reports are to be submitted to the Client and the contractor
 - Conduct once-off training with the Contractor on the EMP and general environmental awareness;
 - It must be noted that the responsibility of the ECO is to monitor compliance and give advice on the implementation of the EMP and not to enforce compliance

2.3 The Contractor

The Contractor is responsible for the overall execution of the activities envisioned in the maintenance phase including the implementation and compliance with recommendations and conditions of the EMP. The Contractor shall therefore ensure compliance with the EMP at all times during maintenance activities and maintain an environmental register which keeps a record of all environmental incidents which occur on the site during construction of the roads.

These incidents may include:

- Public involvement / complaints;
- Health and safety incidents;
- Incidents involving Hazardous materials stored on site; and noncompliance incidents;
- The Contractor is also responsible for the implementation of corrective actions issued by the ECO and Project/Service Manager within a reasonable or agreed period of time

The Contractor shall compile and maintain an environmental emergency contingency plan to ensure that there will be an appropriate response to unexpected or accidental actions or incidents that will cause harm to the environment. These are to include:

- Accidental discharges to water and land;
- Accidental exposure of employees to hazardous substances;
- Accidental fires;
- Accidental spillage of hazardous substances;
- Accidental toxic emissions into the air;
- Specific environmental and ecosystem effects from accidental releases or incidents

2.4 The Environmental Site Agent(ESA)

Ensuring compliance is the responsibility of the Environmental Site Agent appointed by the contractor and the ESA shall;

- Be fully conversant with the content of the Environmental Management Programme;
- Be fully conversant with all relevant environmental legislation applicable to the project, and ensure compliance with them;
- Compile the Method Statements together with the Contractor that will specify how potential environmental impacts in line with the requirements of the EMP will be managed and how they will practically ensure that the objectives of the EMP are achieved;
- Convey the contents of this EMP to the maintenance site staff and discuss the contents in detail with the Contractor;
- Undertake regular and comprehensive inspections of the site and surrounding areas to monitor compliance with the EMP;
- Take appropriate action if the specifications contained in the EMP are not followed;
- Monitor and verify that environmental impacts are kept to a minimum, as far as possible;
- Order the removal from the maintenance site of any person(s) and/or equipment in contravention of the specifications of the EMP;
- Ensuring that the list of transgressions issued by the ECO is available on

request The following documents must be kept on site:

- EMP;
- Method Statements;
- A site diary;
- I&AP's complaints register;
- Environmental incidents register;
- Updated Material Safety Data Sheets(MSDS)

3. Environmental Training and Awareness

“According to regulation 33 of GNR543, and Environmental Management Programme must include:

- i. An environmental awareness plan describing the manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work; and
- ii. Risks must be dealt with in order to avoid pollution or the degradation of the environment.

The environmental training is aimed at:

- Promoting environmental awareness
- Informing the Contractor of all environmental procedures, policies and programs applicable
- Providing generic training on the implementation of environmental management specifications; and
- Providing job-specific environmental training to understand the key environmental features of the maintenance site (referring to the site where work is conducted) and the surrounding environment.

The environmental training shall as a minimum include the following:

- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;
- Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Agency’s environmental management systems, including emergency preparedness and response requirements;
- The potential consequences of departure from specified operating procedures;
- The mitigation measures required to be implemented when carrying out their work activities.
- Environmental legal requirements and obligations.
- Details regarding floral/faunal species of concern and protected species and the procedures to be followed should these be encountered during maintenance phase considering that these may also feature in landscapes and hospital vegetation programs.
- The importance of using supplied toilet facilities.
- Encouragement to minimize the production of waste and re-use, recover and recycle waste where possible;
- Details regarding archaeological and/or historical sites which may be unearthed during maintenance (applicable only where new cable routes are used and/or equipment is to be moved to a new location) and the procedures to be followed should these be encountered

4. Legal Requirements

LEGISLATION	SECTIONS AND CHAPTERS	REFERRING TO
The constitution Republic of South Africa (Act No108 of 1996)	Chapter 2	Bill of rights
	Section 24	Environmental right
National Environmental Management Act (107 Of 1998) revised 2010	Chapter 2	Defines the strategic environmental management goals and objectives of the government. This applies throughout the Republic and to the actions of all organs of state that may significantly affect the environment
	Chapter	Integrated Environmental Management
	Section 24 (a) & (d) And 24(5)	Listed activities and Regulations
	Chapter 7	Compliance Enforcement and Protection
	Section 28	The developer has a general duty to care for the environment and to institute such measures as maybe Needed to demonstrate such care.
National Environmental Management: Waste Act (59 of 2008)	Chapter 2	Defines the national waste management strategy, norms and standards. It emphasizes the role of the provincial organ of the state in the implementation of Waste Management.
	Section 2	General policy.
	Chapter 4	The develop or manufacture has a general duty to avoid generation of waste and if not avoided minimize and manage it accordingly.
	Section 16	Provision of containers for waste management The waste containers to ensure that the waste is treated and disposed of in an environmentally sound manner.
National Environmental Management: Waste Act (59 of 2008)	Section 27	Provision of containers for waste management.

LEGISLATION	SECTIONS AND CHAPTERS	REFERRING TO
National Heritage Resources act (No 25 of 1999) and regulations	Section 34	No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial Heritage Resources Authority.
	Section 35	No person may, without a permit issued by the responsible heritage resources authority destroy, damage, excavate, alter, deface, or otherwise disturb any archaeological or paleontological site.
	Section 38	This section provides for Heritage Impact Assessments (HIAs), which are not already covered under the ECA. Where they are covered under the ECA the provincial heritage resources authorities must be notified of a proposed project and must be consulted during the HIA process. The Heritage Impact Assessment (HIA) will be approved by the authorizing body of the provincial directorate of environmental affairs, which is required to take the provincial heritage resources authorities' comments into account prior to making a decision on the HIA.
National Environmental Management: Air Quality Act (No 39 of 2004)	Section 26-27	Control of fuels.
	Section 32	Control of dust
	Section 34	Control of noise
	Section 35	Control of odours
National Water Act (36 of 1998)	Section 4	Provides Principles that govern the distribution, use and management of water resources in the Republic South Africa.
	Section 19	Prevention and remedying the effects of pollution
	Section 20	Control of emergency incidents
	Section 21	Control of Water Use
	Section 22	Permissible Water Use
Hazardous Substances Act (No 15 of 1973) and regulations		Provides for the definition, classification, use, operation, modification, disposal or dumping of hazardous substance.

LEGISLATION	SECTIONS AND CHAPTERS	REFERRING TO
National Environmental Management: Biodiversity Act (No 10 of 2004)		Provides management and conservation of South Africa's biodiversity within the framework of the National Environmental Management Act 107 of 1998; the protection of species and ecosystems that warrant national protection and the sustainable use of indigenous biological resources.
National Roads and Traffic Act (No 93 of 1996)		Road safety
Occupational health and safety Act (85 of 1993)	Section 8	General duties of employers to their employees
	Section 9	General duties of employers and self-employed persons To persons other than their employees.
Local Municipality By-Laws		Community disturbances, private property laws and Any public-related issues

5. Maintenance Stage

Environmental Impact Aspects and Mitigation Plans		
Environmental Impact Aspect	Mitigation Measures	Responsible Person(s)
Waste management	The contractor shall obtain a pre-agreement with local authorities to dispose of rubble. Provide sufficient waste bins for different types of waste to enable recycling. ESO shall monitor the neatness of the site and littering. Avoid burning solid waste on-site, Electrical MV Equipment components that are removed for disposal during maintenance shall not be left of ECDOH facilities but shall be disposed of at accredited institutions that provide electrical equipment disposal services. Immediately attend to any oil spillages.	Contractor, ECO,ESO,PM
Hazardous substances	Machinery shall be properly maintained to avoid oil leaks. Hazardous waste (e.g. oil) shall not be kept onsite for a period more than 30 calendar days. Hazardous waste bins shall be labelled and stored safely to avoid spillage-where there's spillage all work should stop and immediately report to PM, ECO and facility management. Hazardous waste shall be barricaded. Liaise with the facility waste management authorities for safe disposal of hazardous waste closer to the facility. All disposal certificates shall be kept	Contractor, ECO,ESO,PM

	on file.	
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Environmental Impact Aspects and Mitigation Plans		
Environmental Impact Aspect	Mitigation Measures	Responsible Person(s)
Oil Spill Management	<u>Oil Spill Kits</u> Spillage kits are to be made available on all vehicles used during the maintenance and or repair activities The oil spill kits should be replenished regularly especially after usage. The oil spill kit should meet the basic requirements for the volume of oil that is being dealt with. <u>Oil spill clean and remediation</u> Contaminated soil by oil should be treated by a biogel and other treatment products to absorb oil. The ECO shall be notified within 24 hrs by phone or email of the spillage and the facility where this has occurred A detailed and comprehensive oil spill report shall be compiled by the contractor and submitted to the ECO. As a minimum, the report shall have the following: • Date of spill • Date of clean-up • Brief description of the incident Including what led to the spill. • Location of the spill • How the spill was managed	
Soil	In cases where cables need to be upgraded/replaced but are inaccessible through sleeving, and trenching is required, vegetation must be retained where possible to avoid soil erosion. Polluted topsoil should be disposed of at a licensed landfill site in case of spillages. Maintenance vehicles should not open new path tracks and are to use the available access roads at all times. Contaminated soil shall be excavated or treated on-site	Contractor, ECO,ESO,PM

Dust	Damp down un-vegetated areas during dusty activities. Retain vegetation where possible Excavate only in agreed times Ensure no nuisance caused affects neighbouring residents and admitted patients. Speed limit to be kept at 30km/h for construction vehicles on dusty roads	Contractor, ECO,ESO,PM
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Environmental Impact Aspects and Mitigation Plans		
Environmental Impact Aspect	Mitigation Measures	Responsible Person(s)
Flora and fauna	These may be discovered on site as they may form part of landscaping on facility pathways and part of our historical pride therefore it is crucial to note the mitigation measures should such occurrences arise. Minimize disturbance of fauna and its breeding patterns Scorpions should not be intentionally killed and rather be left alone Sting from a scorpion commonly found inland are mildly venomous and the affected limb should be immediately immobilized. Non-Indigenous trees or plants can be cleared as stipulated by the ECO in EMP .	Contractor, ECO,ESO,PM

Environmental Impact Aspects and Mitigation Plans		
Environmental Impact Aspect	Mitigation Measures	Responsible Person(s)
Noise	Noisy activities should only take place during allocated day hours 07:00 – 17:00 Where high noise levels cannot be avoided the Hospital of Health Facility Manager should be consulted prior commencement of works.	Contractor, ESO, PM
Sanitation	Contractor is to make prior arrange with the hospital and health facility management for the use of their ablution facilities for the duration of the contract. The contractor is to ensure that the ablution facilities utilized by their maintenance team are left in a hygienic condition.	Contractor, ESO, PM
Water Quality	Hazardous substances must not be stored near water sources e.g. water tanks. The Contractor must manage contaminated wastewater to ensure existing water resources on the site are not contaminated.	Contractor, ESO, PM

Environmental Impact Aspects and Mitigation Plans		
Environmental Impact Aspect	Mitigation Measures	Responsible Person(s)
House Keeping	Good housekeeping must be maintained on site at all times	ESO
Archaeological sites	Permits shall be obtained from the South African Heritage Resources Agency.	Contractor, ECO,ESO,PM

Environmental Impact Aspects and Mitigation Plans		
Environmental Impact Aspect	Mitigation Measures	Responsible Person(s)
Fire prevention	The Contractor shall have operational fire-fighting equipment available on site at all times, e.g. fire extinguishers The level of firefighting equipment must be assessed and evaluated thorough a typical risk assessment process. It may be required to increase the level of protection, especially during the winter months. Smoking may only be conducted in demarcated.	Contractor, ECO,ESO, PM
Liaison with participating facility personnel	The contractor should at least have a signed memorandum of work notifying the following facility stakeholders to maintain an efficient work environment and so to achieve cooperation: • Hospital CEO • Clinic Nurse In-Charge • Waste manager • OHS Officer • Security Head The contractor must liaise with the Local electrical supply authority should the work extend beyond facility boundaries, e.g., by upgrading/replacing the MV supply cable.	Contractor, ECO,ESO,PM

Environmental Impact Aspects and Mitigation Plans		
Environmental Impact Aspect	Mitigation Measures	Responsible Person(s)
Traffic and access	Planning of temporal access routes shall be discussed and agreed between contractor, ECO, PM Photograph and document conditions of existing access roads 30km/h speed limit for vehicles. Rehabilitate all temporal access routes created during maintenance period.	Contractor, ESO, PM
Occupational Health and safety	ESO needs to ensure implementation of Occupational Health Safety Act 1993 (108 of 1993) and its regulations to prevent contraction of communicable diseases on site as that will adversely affect the community and environment. Exposure to dust will cause pulmonary infections that can be spread to community. Adequately mark harmful and hazardous substances and control access to prevent exposure to scavengers.	ESO, Contractor, OHS Officer.

6. Emergency Preparedness

Utilize standard for compliance with SABS ISO14001 document SCSASACI0 for emergency preparedness and response as follows:

a) The person responsible for sites where activities that have the potential for accidents are carried out shall establish an emergency and response plan.

b) The emergency and response plan shall as a minimum contain the following: A

list of all activities with the potential for accidents such as:

- Handling, transporting, or storage of hazardous substances including all petroleum and hydrocarbon (i.e. oil) substances;

Procedures to be followed in the event of an accident resulting in spillage or fire require contact numbers of Department Environmental staff, Emergency services

NB: SCSASAAR3 can be used as a benchmark in cooperation with plan provided by Project OHS Officer which must be filed in OHS file.

7. Record keeping

- Waste disposal certificate
- Environmental management plan
- Final design documents and diagrams issued to and by contractor
- Emergency contingency plan
- All relevant permits
- All method statements from the contractor for all phases of the project
- Disciplinary procedures
- Meeting minutes during maintenance period
- Crisis communication manual
- Training manual
- Training attendance registers
- Incidents and accidents reports
- Medical reports
- Complaints records
- All communications detailing changes of design/scope that may have environmental implications

8. **New cable routes and new MV Equipment Position**

Following the site visit and evaluating the ECDOH DESD assessed by surveyor (specifically where cables need to be replaced) the table below shows details of the preferred route and comments by environmental practitioner.

<i>SOME OF THE ITEMS BELOW ARE ONLY APPLICABLE FOR NEW CABLE ROUTES AND/OR WHERE MVEQUIPMENT NEEDS TO BE RELOCATED DUE TO EXISTENCE OF WETLANDS</i>		
Impact	Preferred Route	Comments
Wetlands	Utilized Route	If streams and non-seasonal wetlands are discovered on the planned MV cable route during survey, the proposed MV cable route will need to be re-routed by the surveyor. If wetlands are not discovered during survey stage and are discovered at the time of construction, the ECO must be informed immediately.
Water Reticulation	Utilized Route	When planning cable routes, it is crucial to ensure that these paths are clear of water reticulation systems. This requirement stems from several key considerations such as safety, operational integrity, regulatory compliance, maintenance access, and environmental considerations.
Flora	Utilized Route/MV Equipment	The newly suggested cable routes or new MV Equipment positions must be designed in a manner that does not interfere with the community farming initiative run by the hospital.
Traffic and vehicle access	Utilized Route	All motor vehicles operated by Contractors within the area shall, in all respects, comply with the Road Traffic Ordinance and Road Traffic Act. Designated drivers shall be in possession of a driver's license, valid for the class of vehicle. The driver's license shall be kept by the person so authorized and shall produce such card on request. The speed limit within the bounds of the ECDOH facilities is <u>30</u> km/h. The Principal Contractor in collaboration

		with the Client/Agent's representative will ensure that proper access control is in place and functional at all times on and off the maintenance site.
Liaison with relevant authority	Utilized Route/MV Equipment	The proposed MV cable route and/or new MV Equipment position needs to be approved in writing by the Hospital/Health Facility representative, Environmental Practitioner and Service Manager prior to commencement of works
Social and environmental effects	Utilized Route	All social and environmental impacts that may arise shall be brought to the attention of the Environmental Practitioner.

EMP Summary Notes

- Emphasis must be ensured on all contents of this document to prevent any detrimental effects to the environment
- Legal requirements shall also be taken into consideration to prevent service delivery delays and environmental impacts.
- Contractor shall be responsible of safe disposal.
- No trees shall be cut, pruned, felled, or topped outside the area of works unless it has been clearly marked for the project purpose by PM
- A further walkthrough is recommended prior the commencement of maintenance to ensure identification of any environmental aspects concerned with SAHRA
- If unmarked graves are dug accidentally, the contractor must stop working immediately and contact ECO and urgent intervention will be requested from the department of health (Environmental Health Officer)

ELECTRICAL MAINTENANCE CONTRACTOR EMP CHECKLIST

To be submitted with every completed scope (as identified on the task order):

		N/A	YES	NO
1.	Did you obtain a copy of DESD Report from the Environmental Management Officer?			
2.	Did you obtain a copy of an Environmental Management Programme (EMP) from Environmental Management Officer?			
3.	Has the EMP been included in the contract specification?			
4.	Have you given copies to the bush clearing contractor (If applicable) And explained the content of the EMP?			
5.	Have you given copies to the Site Supervisor and explained the contents of the EMP?			
6.	Have the above signed and understood the EMP?			
7.	Was any part of the followed? If yes, please specify.			
8.	Was any part of the EMP not practical to follow? If yes, please specify.			
9.	Were any environmental problems encountered during bush clearing and / or construction phase? What were these problems?			
10.	Were these problems addressed? What action was taken to address the environmental problems?			
11.	Did you report these problems to Environmental Practitioner Officer?			
12.	Have you ensured that Hospital/Health facility technical services is aware of and have a copy of the EMP for this project including all specific environmental information on the project.			

General comments: Signed

by:(Contractor):..... Date:

.....

(Clerk of Works): Date:
.....

**Copy of completed checklist to be placed in
Closure File of the project.**

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