

FORM OF OFFER AND ACCEPTANCE

Bid No - ZNB 9930/2021-H

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

C.1.1 - FORM OF OFFER AND ACCEPTANCE

THE OFFER AND ACCEPTANCE FORM IS BOUND INTO **SECTION 1** (See end of Returnable Documents) OF THIS DOCUMENT AS PART OF THE RETURNABLE DOCUMENTS. ONCE A CONTRACT IS CONCLUDED WITH A SUCCESSFUL TENDERER, THIS PAGE WILL BE REPLACED WITH THE FILLED AND SIGNED OFFER AND SIGNED ACCEPTANCE BY THE EMPLOYER AND IT WILL BECOME PART OF THE CONTRACT.

PLEASE SUBMIT THE OFFER AND ACCEPTANCE FORM WITH THE OTHER RETURNABLE DOCUMENTS.

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

C1.2 - CONTRACT DATA

C 1.2 CONTRACT DATA:
 with GCC for Construction Works - Second Edition 2010

CONTRACT DATA FOR:

Replacement of an existing 320kVAGenerator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

Tender no: ZNB 9930/2021-H

The General Conditions of Contract are the clauses contained in the General Conditions of Contract (2010) (Second Edition) published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained through most regional offices of the South African Institution of Civil Engineering, telephone number 011 805 5947 or by visiting their website at www.saice.org.za.

CONTRACT SPECIFIC DATA
 The following contract specific data are applicable to this contract:

CONTRACT VARIABLES

This schedule contains all variables specific to this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of this agreement.

Spaces requiring information must be filled in, shown as 'not applicable' or deleted but not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [] brackets.

The Engineer/Principal Agent, in accordance with Clause 1.1.1.16, shall obtain the specific approval from the Employer before executing any of his functions according to the "Conditions under which Consultants are appointed", or in the event where an employee of the Employer represents the Employer, the relevant General Delegations applicable at the time of executing his/her duties as described in Clause 3.1.2.

Part 1: CONTRACT DATA PROVIDED BY THE EMPLOYER:

PRE-TENDER INFORMATION

CONTRACTING AND OTHER PARTIES

[1.1.1.15] Employer:
 Head: Health (KZN Department of Health: Province of KwaZulu-Natal)
 Postal address:
 Private Bag X9051
 PIETERMARITZBURG
 3200
 Tel: 0339402538 Fax:
 [1.2.1.2] Physical address:
 KZN DoH Townhill Office Park Townhill Hospital Hyslop Road Pietermaritzburg
 PIETERMARITZBURG
 3201

PART 1: DATA PROVIDED BY THE EMPLOYER

[1.1.1.13] Defects Liability Period
 The defects liability period is: 12 Months
 Defects Liability Period is 12 Months for the whole of the Works
 Defects Liability Period is 12 Months for Building Works

Latent Defect Period

[5.16.3] The latent defect period is: 10 years after the Final Approval Certificate

Documentation required before Commencement of the Works:

[5.3.1] The documentation required before commencement with the Works execution are;

[4.3]	Health and Safety Plan	The Contractor shall deliver his Health and Safety Plan of the Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
[5.6]	Initial Programme	The Contractor shall deliver his programme of work within 10 calendar days after notice from the Employer, prior to the Commencement Date.
[6.2]	Guarantee	The Contractor shall deliver his chosen Guarantee (security) for this Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
[8.6]	Insurance	The Contractor shall deliver his insurance for the Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
	Cash flow by contractor	The Contractor shall deliver his Cash flow for the Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
	Priced Bill of Quantity	The Contractor shall deliver his Priced Bill of Quantity within 14 calendar days after notice from the Employer, prior to the Commencement Date.
	Programme	The Contractor is required to submit his Programme of Works in terms of Clause 5.6.1 and 5.3.1 and the Principal Agent is required to approve this within 7 days in terms of Clause 5.6.3
	Other requirements	

[5.3.2] The time to submit the documentation required before commencement with Works execution is: 5 calendar days

	For the works in sections: The date for practical completion from the commencement date and the penalty per calendar day:
[5.5.1] [5.13.1]	Portion 1: 3 Calendar Months 0.04% of the Contract Price, rounded to the nearest R10
[5.5.1] [5.13.1]	Portion 2: N/A 0.04% of the Contract Price, rounded to the nearest R10
[5.5.1] [5.13.1]	Portion 3: N/A 0.04% of the Contract Price, rounded to the nearest R10
[5.5.1] [5.13.1]	Portion 4: N/A 0.04% of the Contract Price, rounded to the nearest R10
[5.5.1] [5.13.1]	Portion 5: N/A 0.04% of the Contract Price, rounded to the nearest R10
[5.5.1] [5.13.1]	Portion 6: N/A 0.04% of the Contract Price, rounded to the nearest R10
[1.3.2]	The law applicable to this agreement shall be that of the: Republic of South Africa
[6.10.1.5]	The percentage advance on materials not yet built into the Permanent Works is: 80.00%
[6.10.3]	Percentage retention on amounts due to contractor is: The Percentage retention is nil. The only security required by the Employer will be such as selected by the Contractor on the Form of Offer and Acceptance and Part 2: CONTRACT DATA PROVIDED BY THE CONTRACTOR, point 2 - Documents, of the Contract Data. Maximum retention is: 0.00% of the Contract Price
[6.8.1] [6.8.2] [6.8.3]	Notwithstanding anything to the contrary contained in the General conditions of Contract and Preliminaries, this contract could only, when the construction period exceeds 6 months and the contract exceeds R1,000,000.00, be subject to a Contract Price Adjustment Factor.
[6.8.2] [6.8.3]	Clause 6.8.2 the last part of the sentence saying "calculated according to the formula and the conditions set out in the Contract Price Adjustment Schedule." must be replaced by "calculated according to the Contract Price Adjustment Provisions (CPAP) Indices Application Manual for use with P0151 indices (Revised 1 January 2013)" as published by Statistics South Africa. The Contract Price Adjustment Provision (CPAP) will be subject to the most recently released indices by Statistic South Africa. Tenderers are advised that with reference to Clause 3.4.6 of the Contract Price Adjustment Provisions (CPAP) Indices Applications Manual, the Head: Health will not accept the submission by Tenderers of lists of additional items."
[6.8.2] [6.8.3]	Where this contract is a Lump Sum contract, the contract will only be subject to Contract Price Adjustment Provisions (CPAP)(Revised 1 January 2013) where the contract period equals or exceeds 6 calendar months. The applicable work group shall be WG 180 for domestic buildings or WG 181 for commercial and industrial buildings only.
[5.14.5]	The following clause must be added to clause 5.14.5: [5.14.5.6] The employers agent shall submit the final account within 3 calendar months to the principal agent.
[10.5] [10.5.3]	The determinations of disputes shall be by ARBITRATION ONLY. The number of Adjudication Board Members to be appointed is: One Replace the last part of the clause with the following: "...on the application of either party, by the Chairman, or his nominee of the Association of Arbitrators."
[10.9.1]	Where CPAP is applicable, the contract sum will be adjusted in accordance with the Contract Price Adjustment Provisions (CPAP) as set out in the CPAP Indices Application Manual as published by Statistics South Africa, dated 1 January 2013 and any amendments thereto: 1) Glass etc. measured in specialist section Metalwork, will be adjusted in terms of the index for that work group unless specifically stated otherwise in the bills of quantities. 2) In case of uninterrupted power supplies, elevators, escalators and hoists, generating sets, motor-alternator sets and intercommunication systems shall be adjusted in accordance with Work Group 170. 3) Further to clause 3.4.6 of the CPAP Indices Application Manual, the listing of additional items for exclusion by Tenderer's, will not be permitted. Alternative Indices: Not Applicable Details of changes made to the General Conditions of Contract for construction works (2010) Second Edition
[1.1]	Clause [1.1.1.5] COMMENCEMENT DATE -- means the actual date of Site Hand over that should not occur prior to the Tenderer receiving one fully signed copy of the Offer and Acceptance in terms of the Form of Offer and Acceptance. [5.12.2.2] ABNORMAL CLIMATIC CONDITIONS - means conditions over and above what could reasonably be expected for the specific locality where the Works are being executed and include inter alia excessive rain, heat, cold, wind and any other climatic condition that would not normally be experienced during the season that the Works are executed in that area. The South African Weather Service's (http://www.weathersa.co.za) 10 year average climatic conditions statistics would be what could be reasonably expected for the specific locality where the Works are executed. [6.2.1] CONSTRUCTION GUARANTEE -- means an on demand guarantee at call obtained by the contractor from an institution approved by the employer in terms of the employer's construction guarantee form as selected in the Offer and Acceptance Form and the contract data. CONSTRUCTION PERIOD -- means the period commencing on the commencement date and ending on the date of due completion date. This period will be deemed to commence on actual site hand over date to the contractor and end on the date of practical completion and shall include all annual industrial holiday periods, Sundays and public holidays. CORRUPT PRACTICE -- means the offer, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. FINAL ACCOUNT - The document prepared by the principal agent, which reflects the contract value of the works at final approval or termination. FRAUDULENT PRACTICE -- means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practise among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition.

INTEREST – the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be in terms of the legislation of the Republic of South Africa, and in particular:

- (a) in respect of interest owed by the employer, the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and
- (b) in respect of interest owed to the employer, the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply

	<p>[1.1.1.16] ENGINEER/PRINCIPAL AGENT – means the person or entity appointed by the Employer and named in the Contract Data as the Engineer /Principal Agent to act as agent of the Employer. In the event of an Engineer/Principal Agent not being appointed, then all the duties and obligations of an Engineer/Principal Agent as detailed in the Contract shall be fulfilled by a representative of the Employer as named in the Contract Data. (Hereafter referred to as Engineer)</p> <p>[1.1.1.21] GENERAL ITEMS - or preliminaries means items stipulated in the Pricing Data relating to general obligations, site services, facilities and/or items that cover elements of the cost of the work which are not considered as proportional to the quantities of the Permanent Works.</p>
	<p>[4.4.1] Add the following to the clause 4.4.1: "The Contract shall only use subcontractors who are duly registered with the CIDB and who has an ACTIVE status at the time of submitting the tender"</p>
	<p>[6.2.1] Refer to Offer and Acceptance form for the various options that the contractor may choose from in providing a form of Guarantee under "GUARANTEE OPTIONS".</p>
	<p>[6.10.6.2] Replace "at the prime overdraft rate, as charged by the Contractor's Bank," with "...at the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975)." Omit "on all overdue payments from the date on which the same should have been paid..." and replace with "only after 30 calendar days from receiving written notice from the Contractor that the amount is overdue..."</p>
<p>[5.12.3]</p> <p>[5.14.5.1]</p> <p>[5.16.4]</p> <p>[6.2.2]</p> <p>[6.2.3]</p> <p>[9.3.2.2]</p>	<p>SPECIAL CONDITIONS OF CONTRACT</p> <p>Omit clause 5.12.3 and add the following: <i>"5.12.3. If an extension of time is granted, the Contractor shall be paid such additional time-related General Items, including for special non-working days, if applicable as are appropriate regarding to any other compensation which may already have been granted in respect of the circumstances concerned. The reasons for extension of time that would invoke payment of time related General Items are inter alia;</i></p> <p>5.12.3.1 Failure to give possession of the site to the contractor. 5.12.3.2 Making good physical loss and repairing damage to the works where the contractor is not at risk. 5.12.3.3 Contract instructions not occasioned by default by the contractor. 5.12.3.4 Failure to issue construction information timeously or the late issue of a contract instruction following a request from the contractor. 5.12.3.5 Late acceptance by the principal agent of a design undertaken by a selected subcontractor where the contractor's obligations have been met. 5.12.3.6 Suspension or cancellation termination invoked by a nominated or selected n/s subcontractor due to default by the employer or the principal agent. 5.12.3.7 Insolvency of a nominated subcontractor. 5.12.3.8 A direct contractor. 5.12.3.9 Opening up and testing of work and materials and goods where such work is according to in accordance with the contract documents. 5.12.3.10 The execution of additional work for which the quantity included in the bills of quantities is not sufficiently accurate. 5.12.3.11 Late or failure to supply materials and goods for which the employer is responsible. 5.12.3.12 Suspension of the works."</p> <p>Omit entire clause 5.14.5.1</p> <p>Add the following new clause "5.16.4. Upon the issue of a Final Approval Certificate, unless otherwise provided in the Contract: 5.16.4.1. The performance Guarantee (if any) shall be returned within 14 days to the guarantor in terms of Clause 7."</p> <p>Replace the following "...it shall be deemed that the Contractor has selected a security of ten percent retention of the value of the Works." with "...it shall be deemed that the Contractor has selected a security of a bank or insurance guarantee of 5% of the value of the Works and a payment reduction of 5% of the value certified in the payment certificate excluding value added tax."</p> <p>Add to clause 6.2.3 the following "The Contractor shall provide proof of paid-up premium payments to accompany his payment certificate as proof that his performance guarantee has not expired yet. The Contractor will not receive payment without proof of the validity of their performance guarantee.</p> <p>Omit "without prejudice to the exercise of any lien the Contractor may have acquired over the Employer's property."</p> <p>Duties and functions of the Engineer requiring the specific approval of the Employer BEFORE execution of any part of these duties are as follows:</p> <p>(a) Determinations of contractors claims for extension of time (revision of the contract completion date). All claims for extension of time shall be submitted by the Engineer, together with the Engineer's recommendations, to the Employer for determination. Omit "Engineer" in clause 4.2.2 and replace with</p> <p>(b) Drawings, instructions or communications of any kind requiring variations of the works and involving EXTRA's shall NOT be given effect by the Contractor UNTIL BOTH the "Official Variation Order" and the "Financial Request for Variation Order and Additional Funds" form, as issued by the Department of Health, have been approved and signed by the Employer.</p> <p>(c) Insurance policies to be approved by the Employer within 21 days of the date of the Commencement of the Works.</p> <p>(d) Any notice of disagreement raised by the Contractor or written Dispute Notice given by the Contractor to the Engineer shall be submitted by the Engineer, together with the Engineer's recommendations, to the Employer for determination.</p> <p>(e) The issue of the certificate of practical completion, certificate of completion and the final approval certificate shall be signed and submitted by the Engineer, to the Employer for final approval and signature. The certificates shall not be considered as officially issued until signed by the Employer.</p> <p>MANAGING PROJECT DURATION</p> <p>(a) The Contractor shall co-ordinate his programme with all other contractors whose work may precede or be executed simultaneously to his own. The Contractor will be called upon to plan and control the project using the Project Evaluation and Review Technique (PERT) or other approved Critical Path Method (CPM) network analysis of his events and activities and those of the sub-contractors in his employ and must co-ordinate his planning with any other contractor employed on the project. A fortnightly project control report will be expected from the Contractor in writing, evaluating any gains or delays against the critical path and he should allow for all costs involved in planning reviewing and updating the programme to the satisfaction of the Principal Agent against this item.</p> <p>(b) Activity-and total float shall belong to the Employer.</p> <p>(c) The Contractor shall deliver his programme of work within 10 calendar days after notice from the Employer, prior to the Commencement Date. It is a condition of this contract that, the contractor submit to the Engineer/principal agent a detailed CPM Programme which shall be to the approval of the Engineer/principal agent. In this regard tenderers are advised to consult with the Engineer/Principal Agent as to the format and requirements of the programme as no claim whatsoever will entertained should the programme fail to meet the requirements of the Engineer/Principal Agent. Failure to submit the programme within the stipulated time may result in the contractor being held in breach of contract.</p> <p>The approved programme will form the basis of time management of the project and extension of time will not be guaranteed unless the Contractor has strictly complied with this provision.</p> <p>The programme shall make allowance for rain and the number of rain days allowed within the critical path shall be on the provisions of the clause dealing with inclement weather and claiming for delays in performance in this bill.</p> <p>Allowance for the above must be made under this item as no claims for failing to comply with this precondition will later be entertained.</p> <p>INCLEMENT WEATHER AND CLAIMS FOR DELAYS IN PERFORMANCE</p> <p>(a) The Contract Sum includes a monthly allowance of 3 working days inclement weather during which rainfall exceeds 10mm per day for months as indicated in the Scope of Works. These days shall be reflected on the critical path of the Contractor's programme as specified in MANAGING PROJECT DURATION above.</p> <p>(b) Claims for delays in performance due to inclement weather shall be calculated separately for each calendar month and for the project as a whole. Delays or gains to the critical path shall be reflected in all revisions of the programme. An extension of time will only be granted where the following conditions are met:</p> <p>(i) The criteria to be used for WORK stoppages shall be for safety hazards or poor quality of work.</p> <p>(ii) The Employer's site representative or the Employer's Principal Agent, if the site representative is not available shall be notified when the Contractor stops the work and intends to claim performance delays. The Employer representative shall inspect the situation together with the Contractor and give an immediate decision.</p>

1. The stoppage claimed must cause a delay in the Completion Date of work. If the critical activities can proceed and a non-critical activity is delayed due to inclement weather no claims for delay shall be granted.
2. No claims for stoppages less than 2(two) hours per day shall be considered.
3. Claims granted for more than 2 (two) hours, but less than 10 (ten) hour (lunch included) day, shall be added together and expressed as full days.
4. All claims shall be submitted in writing to the Principal Agent within one working day of the actual stoppage.
5. The total delay in performance granted to the Contractor expressed in days shall be added to the contractual Completion Date of each section of the Works. The contractual penalty clause shall only come into effect after this newly arrived date.
6. Total delays (in hours) will be rounded up or down to the nearest integer for the calculation of Working Days. The total hours (including lunch) per Working Day shall be 10 unless otherwise indicated on the Contractor's programme.
7. Where the programmed delays for inclement weather exceed the actual delays incurred the Completion Date(s) will not be adjusted.
8. Where the project includes builder's holidays the programmed durations for inclement weather shall be adjusted pro-rate to the actual Working Days.

9. The total of all monthly delays due to inclement weather shall be calculated in accordance with the example given below:

Description	Months					Total Hours
	Sept	Oct	Nov	Dec	Jan	
	Hours	Hours	Hours	Hours	Hours	
Programmed Rain days	0	30	30	15	15	90
Actual Rain days	16	22	35	15	18	106
Difference	-16	8	-5	0	-3	-16
Estimated Extension of time - in working days						2

8 hrs/day* See point 5.2 in the Scope of Works for the specific days the tenderer must allow for in this contract.

Tender no: ZNB 9930/2021-H Part 2: CONTRACT DATA PROVIDED BY THE CONTRACTOR:

POST-TENDER INFORMATION
 Note: All information for this section requires consultation with the Contractor. The Engineer/Principal Agent shall not pre-select any of the alternatives available to the Contractor.

1 CONTRACT DETAILS

[1.1.1.9] Contractor Name:

[1.2.1.2] Postal address:

Tel no: Fax no:

Tax / VAT Registration No: e-mail:

Physical address:

[1.1.1.10] The accepted contract price inclusive of tax is R :
 [Amount in words]

Payment Of Preliminaries (Clause 6.7, 6.8, 6.10 and 6.11)

The preliminaries amounts shall be paid in terms of:

*Alternative A	Yes
**Alternative B	N/A

* Assessed by the Engineer/Principal Agent as an amount prorated to the value of the Work duly executed in the same ratio as the Preliminaries bears to the Contract Price excluding VAT, Preliminary amount, Contingencies and any CPAP.

** Calculated from the priced Bill of Quantity/Lump Sum document. The Contractor and the Engineer/Principal Agent shall agree on a division of the priced Preliminaries items into: initial establishment charge, monthly charge and final disestablishment charge.

If the Contractor and the Engineer/Principal Agent can not agree, within 10 Working Days from the Commencement Date, on such a division then the Engineer/Principal Agent shall make a division of the Preliminaries to be incorporated in the valuations for each monthly payment certificate as follows;

- 10% of the General Items/Preliminaries amount shall not be varied
- 15% of the General Items/Preliminaries shall only be varied in proportion of the Contract Price to the Contract Sum
- 75% of the General Items/Preliminaries shall be varied in proportion to the revised Construction Period compared with the initial Construction Period.

Adjustment of Preliminaries (Clause 6.7, 6.8, 6.10 and 6.11)

Alternative A

For the adjustment of Preliminaries both the Contract Sum and the Contract Value (including tax) shall exclude the amount of Preliminaries, all Contingency Sum(s) and any provision for Cost Price Adjustment Provisions:-

- An amount which shall not be varied.
 - An amount varied in proportion to the contract value as compared to the Contract Sum.
 - An amount varied in proportion to the Construction Period as compared to the initial Construction Period (excluding revisions to the Construction Period to which the Contractor is not entitled) to adjustment of the Contract Value in terms of the agreement.
- The Contractor shall provide a breakdown of charges (including tax) within 15 working days of the date of acceptance of tender and, where applicable, an apportionment of Preliminaries per section
- If the Contractor and the Principal Agent cannot agree, within ten (10) Working Days from the Commencement Date, on such a division then the Principal Agent shall make a division of the Preliminaries to be incorporated in the valuations for each monthly payment certificate as follows;
- 10% of the amount shall not be varied
 - 15% varied in proportion of the Contract Value to the Contract Sum
 - 75% varied in proportion to the revised Construction period compared with the initial Construction Period

Sectional Completion : Subdivision of Preliminaries Costs

For the adjustment of preliminaries for sections of the work the value of fixed, value, and time related amounts of the preliminaries for each section is required. The contractor is to provide such information within fifteen (15) working days of taking possession of the site, failing which the categorised preliminaries amounts shall be prorated to the value of each section.

The above shall apply equally for projects where sectional completion was not contemplated at tender stage but subsequently occurred on an adhoc basis during construction of the works as agreed between the client and the employer. The original priced categorised amounts for fixed, value, and time related amounts shall be prorated to the value of each section.

When an extension of time has been granted in terms of the GCC and the preliminaries require to be adjusted accordingly, the pertinent sectional (subdivided) categorised preliminaries amounts shall be utilised, where applicable and not the overall preliminary amounts.

Where sectional completion is required in terms of the agreement, the Contractor shall provide the Principal Agent with the division of the above categorized amounts into sections. Should the Contractor fail to provide such information within the period stipulated the categorized amounts shall be prorated to the value of each section.

YES no / no

or

Alternative B The Contractor shall within 15 working days of the date of possession of the site provide the Principal Agent with a detailed breakdown of Preliminaries amounts for the works as a whole, or per section where applicable, including administrative and supervisory staff charges and for the use of construction equipment in terms of the programme.

NO yes / no

The contractor is informed that only option 'A' shall apply

2 DOCUMENTS

Contract documents marked and annexed hereto:

Priced Bills of Quantities: Yes No

Lump Sum document: Yes No

Guarantee Options:

Not applicable

2.2 DESIGN BRIEF

Not applicable YES or NO

2.3 DRAWINGS

See list of drawings/Annexure's attached to this document. YES or NO

2.4 DESIGN PROCEDURES

Not applicable YES or NO

Contract drawings: Yes No

Other documents:

Waiver of the Contractors lien or right of continuing possession is required. YES

GUARANTEE OPTIONS

The Tenderer agrees to provide a bank or insurance guarantee in accordance with clause 6.2.3 of the Conditions of the GCC2010 Contract within the period stated in the Contract Data. This guarantee shall be for a sum equal to an amount stated in the Contract Data.

Guarantees submitted must be issued by either an insurance company duly registered in terms of the Insurance Act (Long Term Insurance Act No 52 of 1998 or Short Term Insurance Act No 53 of 1998) or by a bank duly registered in terms of the Banks Act No 94 of 1990, on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

(a) the tenderer accepts that in respect of contracts up to R1 million, a payment reduction of 5% of the contact value will be applicable and will be reduced by the Employer in terms of the applicable conditions of contract.

(b) in respect of contracts above R1 million, the Tenderer offers to provide security as indicated below: select one option

(i) cash deposit of 10 % of the Contract Price

(ii) bank or insurance Performance Guarantee of 10 % of the Contract Price

(iii) cash deposit of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)

(iv) bank or insurance guarantee of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)

NOTE: Where the Tenderer has not selected one of the guarantee options above, the default option will be as if the Tenderer has selected a security of a bank or insurance guarantee of 5% of the value of the Works and a payment reduction of 5% of the value certified in the payment certificate excluding value added tax. - See GCC2010 clause 6.2.2 as amended in Contract Data.

3 SIGNATURES OF THE CONTRACTING PARTIES

Thus done and signed at.....onof.....20.....

Name of signatory

for and behalf of the Employer who by signature hereof

Capacity of
signatory

as Witness.

Thus done and signed at on of 20

Name of signatory

for and behalf of the Contractor who by signature hereof

Capacity of signatory

as Witness.

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA
Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor
Building Work.

PART C2 - PRICING DATA

C2.1 PRICING INSTRUCTIONS GCC FOR CONSTRUCTION WORKS (Second Edition 2010)			
Project title:	Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.		
Bid no:	ZNB 9930/2021-H	Project Code:	0

C2.1 Pricing Instructions

	<p>Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")</p> <p>The adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories by insertion of "F", "V", "T" as the case may be against the price in the "rate" column immediately preceding the "amount" column, where "F" denotes a fixed amount (amount not varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount variable in proportion to time.</p>
1	<p>MASSES AND MEASURING UNITS</p> <p>These shall be in accordance with the Measuring Units and National Measuring Standards Act No. 76 of 1973 and amendments thereto.</p> <p>The pages of each of these documents are numbered consecutively and before the Bidder submits his bid he should check the number of pages, and if any are found missing or duplicated, or the figures or writing indistinct, or the documents contain any obvious error, he should apply to the Head : Health AT ONCE and have same rectified as no liability whatsoever will be admitted by the Administration in respect of errors in Tender due to the foregoing.</p>
2	<p>PRICES FOR VARIATIONS</p> <p>Where prices or quotations for variations are submitted by the Contractor during the currency of the Contract, it is to be clearly understood that these are for the purpose of consideration by the Head : Health and that there is no assumption of acceptance. The Contractor will be notified of acceptance of prices or quotations either by insertion of the amount on the variation order or by written intimation.</p>
3	<p>SCALE</p> <p>The scale to which the Drawings are made is only to be made use of when no figured dimensions are given either on the Drawings or in the tender documents and the figured dimensions are always to be followed though they may not coincide with the scale of the Drawings, but dimensions where possible are to be taken from the buildings.</p>
4	<p>PROVISIONAL ITEMS</p> <p>All items described as "Provisional" shall be used as directed by the Employer and measured and valued or paid for.</p> <p>No work for which "Provisional" items are allowed shall be commenced without written instructions from the Head : Health.</p>

5	<p>TIMELY ORDERING OF MATERIALS</p> <p>The Contractor is warned to place all orders for materials or special articles as early as possible, as he will be held solely responsible for any delay in the delivery of such goods. Nevertheless this tender is conditional upon no liability being attached to the Contractor if delivery of materials is rendered impossible by reason of any act of the Government.</p>
6	<p>ELECTRICAL LIGHTING, POWER AND WATER</p> <p>The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of the works, and provide electric power and water required by all Sub-Contractors, Nominated Sub-Contractors and Sub-Contractors appointed directly by the Employer.</p> <p>The Contractor shall give all notices and pay all fees in connection with temporary electrical and water connections and shall connect temporary Electrical and Water meters for and pay for all current and water consumed.</p> <p>Bidders are advised that the permanent light fittings and water points of any kind installed in the Works are not to be used to provide temporary lighting and supplement water requirements for construction purposes.</p>
7	<p>IMPORT PERMITS, DUTIES AND SURCHARGES.</p> <p>All bids by means of which imported products are being called for, must use the rate of exchange 14 days prior to the closing date indicated in the bid documents. If this day falls on a weekend or public holiday, the next working day must be used.</p> <p>Furthermore, Bidders must submit documentary proof (in the form of a certified copy) from their bank or legally recognised financial institution, clearly indicating what the rate of exchange was 14 days prior to the closing date, as mentioned above.</p> <p>Together with this, the Bidder must confirm that the tender price relating to an imported product, was based on the rate of exchange 14 days prior to the closing date as mentioned above.</p>
8	<p>STANDARD SYSTEM OF MEASUREMENT WHERE BILLS OF QUANTITIES FORM PART OF THE BID DOCUMENTS</p> <p>The work executed under this Contract has been measured in accordance with the;</p> <p style="text-align: center;">Standard System of Measuring Builders Work (7th Edition)</p> <p>including all amendments unless descriptions of items indicate a deviation and it shall be understood that the system of measurement which is herein adopted is the only system of measurement which will be recognised in connection with this contract. Any contradictions to this system of measurement contained in the "Model Preambles for Trades 2008" shall be disregarded (unless same have been accommodated in the system of measurement) but applicable rates shall be included for all requirements stated and not measured separately in compliance with this system.</p>
9	<p>PRICING OF ROCK EXCAVATIONS</p> <p>It is a condition of this bid that should the bidder elect to price the Rock Excavation included in this bid, the rates must be market related and should be identically priced for the same classification of excavations and not vary for similar billed items in the different sections.</p>

10	<p>BROAD BASED BLACK ECONOMIC EMPOWERMENT</p> <ol style="list-style-type: none"> It is the deliberate policy of the Provincial Administration of KwaZulu-Natal to foster and to encourage the economic empowerment of Black South Africans. This policy will be implemented without prescription and without prejudicing the principles and the integrity of the Provincial Administration of KwaZulu-Natal. Subject to these constraints and also subject to good business practise and commercial consideration, it is therefore considered appropriate that the Provincial Administration of KwaZulu-Natal should encourage business relationships with companies which actively pursue Affirmative Action and Black Economic Empowerment Programmes. In responding to this tender you are therefore encouraged to devote attention to these two subjects of Affirmative Action and Economic Empowerment. In addition, in considering the appointment of sub-contractors, you are requested to extend the spirit of these policies. The foregoing enunciations of this policy are not intended to be prescriptive nor to preclude any individual or operation from responding to this bid. 				
11	<p>REGISTRATION ON THE CENTRAL SUPPLIERS DATABASE</p> <ol style="list-style-type: none"> In terms of the Public Finance Management Act (PFMA), 1999 (Act No 1 of 1999) Section 38 (1) (a) (iii) and 51 (1) (iii) and Section 76 (4) of PFMA National Treasury developed a single platform, The Central Supplier Database (CSD) for the registration of prospective suppliers including the varification functionality of key supplier information. Prospective suppliers will be able to self - register on the CSD website: www.csd.gov.za Once the supplier information has been varified with external data sources by National Treasury a unique supplier number and security code will be allocated and communicated to the supplier. Suppliers will be required to keep their data updated regularly and should confirm at least once a year that their data is still current and updated. Suppliers can provide their CSD supplier number and unique security code to organs of state to view their varified CSD information. Bidders are required to fill in clearly, legibly, in bold print and black ink their CSD supplier number in the space hereunder: <table border="1" data-bbox="135 1211 1243 1346"> <tr> <td data-bbox="135 1211 555 1272">Name of Supplier</td> <td data-bbox="555 1211 1243 1272"></td> </tr> <tr> <td data-bbox="135 1272 555 1346">Central Supplier Database (CSD) Supplier Number:</td> <td data-bbox="555 1272 1243 1346"></td> </tr> </table>	Name of Supplier		Central Supplier Database (CSD) Supplier Number:	
Name of Supplier					
Central Supplier Database (CSD) Supplier Number:					
12	<p>TAX CLEARANCE REQUIREMENTS</p> <p>It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations. It is a condition of this Offer of Commission that your practice remains in good standing with SARS (South African Revenue Services) in terms of its tax clearance, during the project, which is required to process your payment certificates.</p> <ol style="list-style-type: none"> In order to meet this requirement bidders are required to apply via e-filing at any SARS branch office nationally. The Tax Compliance Status (TCS) requirements are also applicable to foreign bidders / individuals who wish to submit bids. SARS will then furnish the bidder with a Tax Compliance Status (TCS) PIN that will be valid for a period of 1 (one) year from the date of approval. In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Compliance Status (TCS) PIN. Application for Tax Compliance Status (TCS) PIN can be done via e-filing at any SARS branch office nationally or on the website www.sars.gov.za. Tax Clearance Certificates may be printed via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za. Tax Clearance Certificates may be printed via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za. <table border="1" data-bbox="135 2056 1243 2166"> <tr> <td data-bbox="135 2056 459 2112">Security PIN Number</td> <td data-bbox="459 2056 1243 2112"></td> </tr> <tr> <td data-bbox="135 2112 459 2166">Company / Entity Tax Reference Number</td> <td data-bbox="459 2112 1243 2166"></td> </tr> </table>	Security PIN Number		Company / Entity Tax Reference Number	
Security PIN Number					
Company / Entity Tax Reference Number					

13	BILLS OF QUANTITIES/LUMP SUM DOCUMENT The Bills of Quantities document forms part of and must be read and priced in conjunction with all the other documents forming part of the contract documents, the Standard Conditions of Bid, Conditions of Contract, Standard Preambles to all Trades, Specifications, Drawings and all other relevant documentation.
14	VALUE ADDED TAX The bid price must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the Bills of Quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.
15	FIXED PRICE CONTRACT Should the Bills of Quantities/Lump Sum Document be a fixed price contract, the following clause must be inserted in the Pricing Instructions: Bidders are to take note that the contract price adjustments are not applicable to this contract. Bidders should therefore make provision in the Contract Sum, schedule of rates, etc. for possible price increases during the contract period, as no claims in this regard shall be entertained.



Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

PART C2.3 BILL OF QUANTITIES

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

PART C3. SCOPE OF WORKS

C3.1 SCOPE OF WORKS			
GCC FOR CONSTRUCTION WORKS (Edition 2 of 2010)			
Scope of Works complied in accordance with SANS 10403 where reference is made to this part of SANS 1921-1:2004			
Project title:	Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.		
Bid no:	ZNB 9930/2021-H	Project Code:	0
	<u>SECTION 1</u>		
1	<u>EXTENT OF THE WORKS</u>		
1.1	EMPLOYERS OBJECTIVES Replacement of an existing standby Emergency Power Generator with a new Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Works.A411		
1.2	OVERVIEW OF THE WORKS Replacement of an existing 320kVA & 500kVA Emergency Power Generators with new 450 kVA & 630kVA Indoor Canopy Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Works.		
1.3	EXTENT OF THE WORKS Upgrade of existing standby Generator Plant, Cable and LV panel upgrade, Plant room refurbishment. Decommission and removal of existing plant .		
1.4	LOCATION OF THE WORKS Port Shepstone Regional Hospital		
1.5	TEMPORARY WORKS Not Applicable		
2	<u>ENGINEERING</u>		
2.1	EMPLOYER'S DESIGN Specifications & Bil of Quantities		
2.2	DESIGN BRIEF Refer to PSH Generator Replacement - Stage 1B Project Brief		
2.3	DRAWINGS Not Applicable		
2.4	DESIGN PROCEDURES Not applicable		

3

PROCUREMENT

3.1 PREFERENTIAL PROCUREMENT PROCEDURES

This bid will be subject to the implementation of the Preferential Procurement Regulations, 2017 pertaining to the Preferential Procurement Policy Framework Act, Act Number 5 of 2000 and the relevant Supply Chain Management Legislation and the KwaZulu-Natal Supply Chain Management Policy Framework published by the KwaZulu-Natal Provincial Treasury. Bidders are referred to www.kzntreasury.gov.za for access to the relevant documents.

Bidders are advised to familiarize themselves with the contents of the KwaZulu-Natal Supply Chain Management Policy Framework regarding Preference Point Systems, evaluation of bids appeals and other matters.

3.2 RESOURCE STANDARD PERTAINING TO TARGETED PROCUREMENT

NOTE : This project will be adjudicated as not exceeding R 5,000 000,00

3.3 SCOPE OF MANDATORY SUBCONTRACT WORK

DIESEL FUEL REMEDIATION INCLUDING THE CLEANING OF DIESEL FUEL TANKS BY A SPECIALIST SUB-CONTRACTOR.

3.4 PREFERRED SUBCONTRACTORS/SUPPLIERS

Not applicable

3.5 SUBCONTRACTING PROCEDURES

Not applicable

4

CONSTRUCTION

4.1 APPLICABLE SANS 2001 STANDARDS FOR CONSTRUCTION WORKS

Wherever the words "shall be deemed to be included in the description", "shall be stated" or other words having the same effect, appear in the Standard System, it shall be deemed that all descriptions in these Bills of Quantities/Lump Sum documents incorporated such inclusions and statements whether specifically stated or not.

The Contractor is hereby informed that where SABS/SANS Specifications are referred to in these Bills of Quantities/Lump Sums documents and Specifications thereto, then ONLY the Specification of Work Clauses will apply. The method of measurement and payment clauses will NOT apply to this Contract.

The Contractor is hereby informed that risk of collapse and keeping excavations free from water (excluding subterranean water) generally are deemed to be included in the descriptions unless accommodated in the system of measurement. Please refer to the Geotechnical Investigation report when included at the end of these bid documents.

Whenever reference is made to "Sub-Contractor", "Nominated Sub-Contractor" or the like in the specifications included or referred to in these Bills of Quantities/Lump Sums documents, it shall be deemed to mean "Contractor" as defined.

4.2	APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS												
	SABS 1473 Part 1 - 1989 /IEC 439 - 1 1985.												
4.3	PARTICULAR / GENERIC SPECIFICATIONS												
	The Contractor is referred to the following documents whether attached to this document or not:												
	<table border="0"> <thead> <tr> <th data-bbox="197 374 379 400"><u>SPECIFICATION</u></th> <th data-bbox="951 374 1034 400"><u>PAGES</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="197 405 671 432">Specification for HIV/AIDS Awareness (CIDB)</td> <td data-bbox="951 405 1102 432">HIV1 TO HIV3</td> </tr> <tr> <td data-bbox="197 436 831 463">Specific Construction, Safety, Health and Environmental Plan</td> <td></td> </tr> <tr> <td data-bbox="197 468 767 495">Standard Preambles for all Trades (Rev 3) - DOH 2009</td> <td data-bbox="951 468 1023 495">1 to 95</td> </tr> <tr> <td data-bbox="197 499 212 526">0</td> <td data-bbox="951 499 965 526">0</td> </tr> <tr> <td data-bbox="197 530 212 557">0</td> <td data-bbox="951 530 965 557">0</td> </tr> </tbody> </table>	<u>SPECIFICATION</u>	<u>PAGES</u>	Specification for HIV/AIDS Awareness (CIDB)	HIV1 TO HIV3	Specific Construction, Safety, Health and Environmental Plan		Standard Preambles for all Trades (Rev 3) - DOH 2009	1 to 95	0	0	0	0
<u>SPECIFICATION</u>	<u>PAGES</u>												
Specification for HIV/AIDS Awareness (CIDB)	HIV1 TO HIV3												
Specific Construction, Safety, Health and Environmental Plan													
Standard Preambles for all Trades (Rev 3) - DOH 2009	1 to 95												
0	0												
0	0												
4.4	CERTIFICATION BY RECOGNIZED BODIES												
	Only contractors registered with the Electrical Contracting Board of South Africa or Registered with the Department of Labour as an Electrical Contractor in accordance with the Regulations of the Occupational Health and Safety Act will be accepted and permitted to do work under this contract.												
4.5	AGRÉMENT CERTIFICATES												
	Not applicable												
4.6	PLANT AND MATERIAL PROVIDED BY THE EMPLOYER												
	Not applicable												
4.7	SERVICES AND FACILITIES PROVIDED BY THE EMPLOYER												
	Not applicable												
4.8	OTHER SERVICES AND FACILITIES												
	The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of the works, and provide electric power and water required by all Sub-Contractors, Nominated Sub-Contractors and Sub-Contractors appointed directly by the Administration.												
	The Contractor shall give all notices and pay all fees in connection with temporary electrical and water connections and shall connect temporary Electrical and Water meters for and pay for all current and water consumed.												
	The Contractor is advised that the permanent light fittings and water points of any kind installed in the Works are not to be used to provide temporary lighting and supplement water requirements for construction purposes.												
5	<u>MANAGEMENT</u>												
5.1	APPLICABLE SANS 1921 STANDARDS												
	Bidders are referred to SECTION 2 : SPECIFICATION DATA ASSOCIATED WITH SANS 1342, SANS 10089 & SANS 10131.												

5.2	<p>RECORDING OF WEATHER</p> <p>The Contractor shall keep record of abnormal climatic conditions to facilitate the adjudication of claims for extension of the contract period.</p>																																																																	
	<p>The Contractor shall allow in his programme for the following number of days for rain days (rain > 10mm per day) as per the table below:</p> <table border="1" data-bbox="272 371 1364 757"> <thead> <tr> <th colspan="3">CURRENT YEAR</th> <th>YEAR + 1</th> <th>YEAR + 2</th> </tr> </thead> <tbody> <tr><td>January</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>February</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>March</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>April</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>May</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>June</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>July</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>August</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>September</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>October</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>November</td><td>w/days</td><td></td><td>0</td><td>0</td></tr> <tr><td>December</td><td>w/days</td><td>0</td><td>0</td><td>0</td></tr> </tbody> </table>	CURRENT YEAR			YEAR + 1	YEAR + 2	January	w/days		0	0	February	w/days		0	0	March	w/days		0	0	April	w/days		0	0	May	w/days		0	0	June	w/days		0	0	July	w/days		0	0	August	w/days		0	0	September	w/days		0	0	October	w/days		0	0	November	w/days		0	0	December	w/days	0	0	0
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December	w/days	0	0	0																																																														
5.3	<p>MANAGEMENT MEETINGS</p> <p>Not applicable</p>																																																																	
5.4	<p>FORMS FOR CONTRACT ADMINISTRATION</p> <p>The Employer shall provide all necessary forms.</p>																																																																	
5.5	<p>ELECTRONIC PAYMENTS</p> <p>The Contractor shall provide all required information to the Employer to facilitate electronic payments upon request.</p>																																																																	
5.6	<p>DAILY RECORDS</p> <p>The Contractor shall keep daily records of people and equipment employed as well as a site diary in respect of work performed on the site. At the end of each week the Contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all Sub-Contractors on the works each day. At the end of each week the Contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works.</p>																																																																	
5.7	<p>BONDS AND GUARANTEES</p> <p>The Contractor shall within 10 calendar days after receiving notice from the Engineer and prior to receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the Employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data.</p>																																																																	
5.8	<p>PAYMENT CERTIFICATES</p> <p>Requirements will be in accordance with the Employers prescriptions.</p>																																																																	

5.9	<p>PERMITS</p> <p>The Contractor is advised that, in the case of an existing building or institution, all security measures in force will remain in operation and he must acquaint himself and his Employees with them as he and his Employees will at all times be subject to these measures.</p> <p>The Contractor will on no account extend his operations beyond the confines of the building site as indicated by the Employer and must ensure that all his Employees are made aware of these limits. Any Employee disregarding this instruction and found outside the limit of the building site without authority, shall be redeployed immediately and shall not again be employed on this Contract.</p> <p>The Contractor will be responsible for ensuring that this instruction is strictly enforced and must provide and remove upon completion or when directed, such other necessary temporary barriers, fences, etc., as may be required and is to allow opposite this item for any charges he may wish to make in this connection.</p> <p>The Employer will accept no responsibility whatsoever for damage to or the loss of plant, materials, etc., from the site.</p>
5.10	<p>PROOF OF COMPLIANCE WITH THE LAW</p> <p>The following certificates must be provided before first delivery is taken:</p> <ul style="list-style-type: none"> - HIV/STI Report (Bound into this document) - Electrical Compliance Certificate - Fire Compliance Certificate - Electrical and Mechanical test certificates if applicable - Registration with ECB or DOL - Registration with the Institute of Waste Management of Southern Africa (IWMSA) - Disposal Certificate by an accredited Toxic Waste Disposal Company - Independent laboratory test results of remdiated diesel fuel
5.11	<p>INSURANCE PROVIDED BY THE EMPLOYER</p> <p>Not Applicable</p> <p><u>SECTION 2</u></p> <p><u>SPECIFICATION DATA ASSOCIATED WITH SANS 1921-2004</u></p>
<p>Clause Numbers</p> <p>4.1.7</p> <p>4.2.1</p> <p>4.2.2</p> <p>4.2.3</p>	<p>The requirements for drawings, information and calculations for which the Contractor is responsible</p> <p>Drawings to be submitted as per Technical Specifications and BOQ</p> <hr/> <p>The responsibility strategy assigned to the Contractor for the works is:</p> <p>Strategy A</p> <hr/> <p>The structural engineer is:</p> <p>Not Applicable</p> <hr/> <p>Drawings & other info are to be submitted in accordance with the contractors programme</p> <p>Not Applicable</p>
4.3	<p>The planning, programme and method statement are to comply with the following:</p> <p>N/A</p>

4.12.1	<p>Samples of materials</p> <p>The work is to be executed with materials of the best specified and in the most substantial and workmanlike manner under the inspection of the Employer and to his satisfaction. The Contractor shall furnish, without delay, such samples as called for or may be called for by the Employer, who may reject all materials or workmanship not corresponding with the approved sample. The samples of materials, workmanship and finishes that the Contractor is to provide and deliver to the employer are: 0</p>
4.12.2	<p>Fabrication drawings that the contractor is to provide to the employer are:</p> <p>None</p>
4.12.3	<p>Office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are:</p> <p>OFFICE FOR FOREMAN</p> <p>Not Applicable</p> <p>TELEPHONE</p> <p>Not Applicable</p> <p>OFFICE FOR INSPECTOR OF WORKS</p> <p>Not Applicable</p> <p>TELEPHONE IN OFFICE FOR INSPECTOR OF WORKS</p> <p>Not Applicable</p>

	SHED
	Not Applicable
4.14.6	The requirement for provision and erection of signboards are:
	As per Technical Specifications and BOQ
4.17.1	Requirement for the termination, diversion or maintenance of existing services:
	Not Applicable
4.17.3	Services which are known to exist on the site:
	Not Applicable
4.17.4	Requirement for detection apparatus
	None
4.18	ADDITIONAL HEALTH AND SAFETY REQUIREMENTS ARE:
	<p>By the submission of a bid, any Bidder will, if awarded the contract to which this bid document relates, be deemed to be the mandatory as envisaged by Section 37 (2) of the Act. As a mandatory the successful Bidder will be deemed to be the "principal contractor" and an employer in his/her/their own right with duties as prescribed in the Act and accordingly will be deemed to have agreed to be solely responsible for ensuring that in connection with the service to which this bid document relates, all work will be performed and machinery and plant used in accordance with the Act. Should the Contractor, for whatever reason be unable to perform as required by the Act, the Contractor undertakes to inform the Employer accordingly.</p> <p>Bidders are advised that it is a Condition of this Bid that a 'Construction Phase Safety, Health and Environmental Plan' specifically relates to the project for which bids are being submitted and must be prepared by the Bidder and submitted with the other bid documents at the time of bid. Failure to do so will invalidate the Bidders are therefore advised to study the 'Construction Safety, Health and Environmental Specification' which is issued as part of this bid document, the Model Preambles to Trades - 2008, any project Specification included in this bid document and any and all drawings which are referred to and issued as part of this bid document before preparing their own project specific 'Construction Phase Safety, Health and Environmental Plan' . Bidders are also advised that such a plan which is submitted with a bid but is incomplete or considered inadequate by the Employer or his Representative will invalidate the bid.</p> <p>The Contractor will be deemed to have satisfied himself with his obligations in terms of the Act and to have allowed for all costs arising from compliance with the Act as no claim for extra costs arising from compliance with, and obligations in terms of the Act will be entertained.</p>
4.22	WORK BY NOMINATED AND SELECTED SUBCONTRACTORS COMPRISE:
	[Provide list of applicable contractors]

C3.2 - SPECIFICATION FOR HIV/AIDS AWARENESS

1 Scope

This generic specification contains requirements applicable to the reduction of the risk of transfer of the HIV virus between and among construction workers and the local community through the following four strategies:

- a) raising awareness about HIV/AIDS;
- b) providing construction workers with access to condoms;
- c) HIV counselling, testing and referral services; and
- d) Sexually Transmitted Infection diagnosis and treatment.

2 Normative references:

The following standard contains provisions that, through reference in this text, constitute provisions of this standard:

SANS 4074 ISO 4074, *Condom Rubbers*

3 Definitions and Abbreviations

3.1 Definitions

Construction Worker: all persons in the employ of the contractor or in the employ of any of the subcontractors contracted by the contractor.

Local Community: the communities local to the site which are most likely to have contact with the construction worker and, in particular, sex workers in those communities.

Service provider: the natural or juristic person recognised by the South African Department of Health as specialist in conducting Aids Awareness Programmes.

3.2 Abbreviations

STI: Sexually transmitted infection

HIV: Human Immunodeficiency Virus

AIDS: Acquired Immune Deficiency Syndrome

4 Objectives

The objectives are to:

- a) reduce the risk of transfer of the HIV virus between and among construction workers and the local community;
- b) raise awareness amongst construction workers and the local community of the risk of infection with the HIV virus;
- c) promote early diagnosis; and
- d) assist affected individuals to access care and counselling.

5 Requirements

5.1 General requirement

The contractor shall, in order to satisfy the objectives stated in 4:

- a) make condoms complying with the requirements of SABS ISO 4074 available to all construction workers at readily accessible points on the site, suitably protected from the elements, for the duration of the contract;
- b) either place and maintain HIV/AIDS awareness posters of size of not less than A1 in areas which are highly trafficked by construction workers, or provide construction workers with a pamphlet, in languages largely understood by construction workers, which
- c) encourage voluntary HIV/STI testing;
- d) provide information concerning counselling, support and care of those that are infected services; and
- e) comply with the requirements of 5.2.

The provisions of 5.1 c) and d) do not apply to this contract.

5.2 HIV awareness programme

5.2.1 The contractor shall:

- a) engage a qualified service provider as described in the scope of works to conduct an HIV Awareness Programme which is structured to achieve the outcomes stated in 5.2.3 for contract workers as soon as a construction workers camp is established and populated or, where no such camp is established, within two weeks of the commencement of a significant portion of the works and at subsequent intervals, if any, provided for in the scope of works; and
- b) arrange for, provide a suitable venue, and instruct all construction workers to attend the HIV Awareness Programme and notify the Employer's Representative of the date, time and venue whenever a session with construction workers is conducted.

Note: The National Department of Health maintains a list of qualified service providers.

5.2.2 The contractor shall do nothing to dissuade construction workers from attending such an HIV Awareness Programme and shall take all reasonable steps to ensure that a minimum of 90% of construction workers engaged in the works attend such a programme, when it is conducted.

5.2.3 The outcomes of the HIV Awareness Programme shall as a minimum, result in contract workers exposed to such a programme being able to:

- a) communicate the existence of problems of HIV and be able to outline the consequences of transmission of HIV to or from the local community;
- b) recall and communicate the mode of HIV transmission and preventative measures including the proper use of the condom.

The HIV/ Aids awareness programme described in 5.2 is to be repeated at four month intervals throughout the duration of the contract. (Four times in total, including the initial one at the start of the contract)

5.3 Reporting

- 5.3.1 The contractor shall prepare and attach to his claims for payment a brief report which outlines how the actions taken by the contractor in the period for which payment is claimed satisfy the requirements and a schedule which lists the names, identity numbers, trade / occupation and name of employer of all construction workers exposed to the programme (see HIV/STI Compliance Report).
- 5.3.2 The employer's representative shall certify the report and schedule described in 5.3.1 whenever a claim for payment is issued to the employer.

Note: In the event that the contractor fails to satisfy the requirements of this specification, the employer (Head: Health) may apply any of the sanctions provided for in the contract. Sanctions may include the application of a financial penalty of .04% of the Contract Sum.

The HIV /Aids awareness programme described in 5.2 shall in addition *be conducted* for the benefit of the local community on two occasions in the community centre nearest to the building site. The contractor shall be *responsible* for inviting identifiable community-based *institutions and organisations, churches, and schools to participate in the programme.*

C3.3 - HIV/STI COMPLIANCE REPORT

Pro-forma reporting format in terms of the SPECIFICATION FOR HIV/AIDS AWARENESS

Project Code:

0

Payment Claim number:

Period covered by payment claim:

1. Distribution of condoms (briefly describe where and how condoms are distributed).

2. Posters / pamphlets (briefly describe where posters were placed / how pamphlets were distributed).

3. Voluntary testing (briefly describe the actions taken / information provided to promote testing).

4. Counselling, support and care (summarise information provided).

5. HIV awareness programme (briefly describe action).

6. Schedule of construction workers exposed to the HIV awareness programme.

Name	Identity number	Trade / occupation	Name of employer

I hereby declare the above to be a true reflection of actions taken to ensure compliance with the specification.

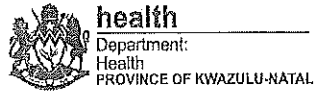
For Contractor:
Name: _____
Signature: _____
Date: _____

Employer's representative:
Name: _____
Signature: _____
Date: _____

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

PART C4. SITE INFORMATION

C4.1 SITE INFORMATION GCC FOR CONSTRUCTION WORKS (2 Edition of 2010)			
Project title:	Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.		
Bid No.	ZNB 9930/2021-H	Project Code:	0
C4.1 Site Information			
C4.1	GENERAL		
(a)	Access roads to generator plants rooms are tar surfaced. Entry points to the plant rooms may not be easily accessible and contractor observe clearances upon site inspection for equipment, site establishment and driven machinery.		
(b)	Generator placement is within dedicated plant rooms. Plant rooms contain switchgear, mechanical plant and cable tunnels.		
(c)	Plant rooms are in direct contact with other buildings and exhaust pipework extends through multiple rooms before discharging at the top of the roof. Bulk fuel tank is situated away from the two standby generator plant rooms.		
C4.2	GEOTECHNICAL INVESTIGATION REPORT		
(a)	Not applicable		



Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

PART C5 - DRAWINGS / ANNEXURES

C5.1 - LIST OF DRAWINGS/ANNEXURES

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

Bid No.:	ZNB 9930/2021-H	Project Code:	0
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(Where drawings/annexure's are issued, document compilers must insert the following paragraph and list the applicable drawings/annexure's below.)

The following drawings/annexure's shall be issued during the bid period to form part of the bid documentation. Where applicable, drawings/annexure's could be re-issued to the Contractor at commencement of the construction phase.

<u>DRAWING NO</u>	<u>DESCRIPTION</u>
List of Drawings	
C5.1 -	Standard Preambles for all Trades (Rev 3) - DOH 2009
C5.2 -	General Electrical Specifications
C5.3 -	Health and Safety Specification
C5.4 -	Health and Safety Bill of Quantities
C5.5 -	Builders Lien Agreement

0
Joint Venture Agreement
(March 2004)
(First Edition of CIDB document 1017)

1. **PREAMBLE**

This agreement is made and entered into by and between

of the first part and

of the second part and

of the third part.

(allow for additional parties as necessary).

Whereas the foregoing parties have resolved to form a Joint Venture under the title of

for the exclusive purposes of securing and/or executing the Contract to be awarded by

(name of Employer)

to the KZN Department of Health in respect of the following project:

for (brief description of Contract)

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

Now it is hereby agreed as follows :

2. **DEFINITIONS AND INTERPRETATION**

2.1 Definitions

The following words and expressions shall have the meanings indicated, except where the context otherwise requires. Defined terms and words are, in general, signified in the text of the Agreement by the use of capital initial letters, but the absence of such letters does not necessarily signify that a term, or word, is not defined.

'Agreement' means the agreement between the Members of the Joint Venture and includes this model form of agreement together with the Preamble, Specific Provisions, if any, Schedules 'A', 'B' and 'C' and any relevant Documents prepared prior to the signing of the Agreement and appended thereto.

'Contract' means the contract with the Employer for the supply of the Deliverables, for the purposes of securing and executing which, the Joint Venture has been formed.

'Deliverables' means the works and/or services, equipment, materials, goods, etc. to be furnished by the Joint Venture to the Employer in terms of the Contract.

'Document' means any written, drawn, typed, printed, or photographic material, which relates to the Agreement.

'Employer' means the person, or body, which is to award the Contract and will employ the Joint Venture if it is awarded the Contract.

'Joint Venture' means the joint venture formed by the Members in accordance with the Agreement.

'Management Committee' means the body established in terms of the Agreement to manage all aspects of the work of the Joint Venture in securing and executing the Contract and in meeting the provisions for the Agreement.

'Member' means a person, or body which, being a party to the Agreement, is a member of the Joint Venture.

'Member's Interest' means the proportion expressed as a percentage, which the total monetary value of all resources provided and contributions made by a Member towards the execution by the Joint Venture of the Contract bears to the total of such values by all Members and, unless otherwise indicated in the Agreement, represents the extent to which the Member participates in the fortunes of the Joint Venture.

'Representative' means the person representing a Member on the Management Committee.

'Schedules' means Schedules 'A', 'B' and 'C' which set out general, financial and other information relating to the Members and the obligations, duties, rights, risks and benefits arising from their participation in the Joint Venture.

'Specific Provisions' means the variations, if any, required to this standard form of agreement for the specific purposes of the Agreement.

2.2 Interpretation

Unless inconsistent with the context, an expression in the Agreement which denotes:

- any gender shall include the other genders
- a natural person shall include a juristic person and vice versa
- the singular shall include the plural and vice versa

2.3 Headings

The headings to clauses of the Agreement shall not be considered part thereof, nor shall the words they contain be taken into account in the interpretation of any clause.

2.4 Law

The Agreement shall be construed in accordance with and governed by the laws of the Republic of South Africa and the English language versions shall prevail.

2.5 Language

English shall be exclusively used by the Members in the preparation of Documents unless otherwise indicated.

2.6 Conflict between Agreement and Contract

Should any provision of the Agreement be in conflict with the terms of the Contract, the Agreement shall be amended to the approval of the Management Committee so as to eliminate the conflict.

3. **JOINT VENTURE GENERAL**

3.1 Establishment and Purpose

The Joint Venture established by the Members in terms of the Agreement is an unincorporated association with the exclusive purposes of securing and executing the Contract for the benefit of the Members.

3.2 Termination

The operation of the Joint Venture and the validity of the Agreement shall terminate if and when it becomes evident that the Joint Venture will not be awarded the Contract, or, if the Joint Venture secures the Contract, when all obligations and rights of the Joint Venture and the Members in connection with the Contract and the Agreement have ceased and/or been satisfactorily discharged.

Unless otherwise decided by the Management Committee, the Agreement shall not terminate if a Member changes its name, or is taken over by, or merged with, another body.

This agreement will terminate when any one of the Members resigns, are liquidated or opts out of this agreement and the Joint Venture will be in breach of contract with the Employer and their contract could be cancelled.

3.3 Exclusivity

Unless otherwise agreed by the Management Committee, or provided for in the Contract no Member shall engage in any activity related to the Contract other than as a Member of the Joint Venture and Members shall ensure that their subsidiaries and other bodies over which they have control comply with this requirement.

3.4 Participation of Members

Except as may otherwise be stipulated in the Agreement, each Member shall be responsible for all costs incurred by it prior to the date of inception of the Agreement.

Subsequent to the date of inception of the Agreement, each Member shall, participate in the operations, risks, responsibilities and fortunes of the Joint Venture including, inter alia, the provision of funding, sureties, guarantees, insurances, human and other resources and participation in profits and losses to the extents indicated in the Schedules. Participation in any aspect not covered in the Schedules shall, if an agreement cannot be reached between the Members, be to the same extents as indicated by the Members Interests.

3.5 Management

The affairs of the Joint Venture shall be directed and controlled by the Management Committee, as set out in Section 4 hereof.

3.6 Confidentiality

All matters relating to the Agreement and the Contract shall be treated by the Members as confidential and no such matter shall be disclosed to any third party without the prior written approval of the Management Committee.

No Member shall be party to the dissemination of publicity relating to the Contract, or the Agreement, without the prior written approval of the Management Committee and the Employer.

3.7 Assignment

No Member shall cede, assign, or in any other way make over any of its rights, or obligations, under the Agreement without the prior written consent of the Management Committee.

3.8 Subcontracting

No Member shall subcontract any obligation, work or duty for which it is, itself, responsible in terms of the Agreement without the prior written consent of the Management Committee.

3.9 Variations to Agreement

No variation, modification, or waiver of any part of the Agreement shall be of any force, or effect, unless unanimously agreed by the Members and reduced to writing.

3.10 Liability

Each Member warrants that it will indemnify the other Members against all legal liabilities arising out of, or in connection with the performance of its obligations under the Agreement.

It is acknowledged by the Members that they may be held jointly and severally liable in respect of claims against the Joint Venture by the Employer or third parties.

4. **MANAGEMENT OF JOINT VENTURE**

4.1 General

The affairs of the Joint Venture shall be directed, controlled and managed by the Management Committee, which, within the terms of the Agreement and the Contract, shall have full authority to bind the Members in all matters relating to the affairs of the Joint Venture.

Communication between the Joint Venture and the Employer, or third parties, relating to the Contract shall be conducted exclusively by the Management Committee, or by such person as it may delegate to perform this function.

The Management Committee shall have the power to appoint a project manager and/or such other persons as it may see fit to appoint for the purpose of executing the Contract and may delegate such of its powers, responsibilities and duties as it may consider necessary, or desirable, to persons or bodies appointed or seconded for this purpose.

Such administrative functions as are necessary to ensure the effective operation of the Management Committee shall be performed by its chairman.

4.2 Management Committee

4.2.1 Composition

The Management Committee shall, unless otherwise agreed by all the Members, consist of one Representative of each Member and each Member shall be obliged, at all times, to maintain a Representative on the Management Committee.

Each member shall, not later than three working days after the signing of the Agreement, appoint its Representative and notify the other Members of the name and contact details of the Representative. Such Representative shall have the power to bind the Member that he represents in all matters relating to the execution of the Contract and the performance of the Agreement.

A Member shall be entitled, after giving the other Members not less than three working days written notice of his intention to do so, appoint, remove and/or replace, an alternate who shall, at any meeting of the Management Committee from which the Representative whom he represents is absent, be vested with all rights and powers and subjected to all the obligations of the absent Representative.

The chairman of the Management Committee shall be the Representative of the Member which has the largest Member's Interest. If two, or more, Members have the same, largest Member's Interest, the chairmanship shall rotate between the Representatives of such Members at three monthly intervals, the order of rotation to be determined by ballot.

Notwithstanding the foregoing, the chairmanship of the Management Committee may be determined, or changed, at any time by unanimous decision of the Management Committee.

4.2.2 *Meetings*
No remuneration shall be paid by the Joint Venture to Representatives or their alternates for serving on the Management

Meetings of the Management Committee shall take place at such times and places as the Management Committee may determine, provided that the chairman shall convene a meeting of the Management Committee to be held not later than ten working days after he has been requested, in writing, by a Member to do so. Not less than five working days written notice of any meeting of the Management Committee shall be given to all Representatives and their alternates.

The Management Committee may permit, or invite, persons other than Representatives or alternates to attend any of its meetings, but such persons shall not have voting rights.

4.2.3 *Decisions*

Each Representative shall have one vote on the Management Committee and where, in terms of this clause, a casting vote is required, this shall be exercised by the chairman.

All decisions of the Management Committee shall, desirably, be unanimous. Accordingly, if unanimity cannot, initially, be achieved in regard to a decision, the meeting at which that decision is sought shall be adjourned for a period of 48 hours to enable Representatives to consult with their principals. If, on resumption of the adjourned meeting, unanimity can still not be achieved, the decision, provided it is not one requiring unanimity of the Members, shall be taken by majority vote and, in the event of a tie, the chairman shall exercise a casting vote.

A Member not satisfied with a majority decision of the Management Committee may declare a dispute, to be dealt with in terms of Clause 8 hereof, but the majority decision shall, nevertheless, be implemented with immediate effect.

Decisions of the Management Committee, whether taken at a meeting, or otherwise, shall be recorded in written minutes, which shall be distributed by the chairman to reach the Representatives not later than five working days after those decisions were taken. Such minutes shall be deemed to have been affirmed by the Representatives unless written notice of dissent is received by the chairman not later than three working days after receipt of the minutes by the Representative.

4.2.4 *Powers and duties*

The functions, responsibilities and powers of the Management Committee shall include, inter alia, those listed below:

4.2.4.1 Formulating overall policy in regard to the achievement of the objectives of the Joint Venture.

4.2.4.2 Managing the day to day affairs of the Joint Venture.

4.2.4.3 Monitoring, directing and co-ordinating the activities of the Members to ensure that the objectives of the Joint Venture are achieved and that the obligations and responsibilities of the individual Members are met.

4.2.4.4 Monitoring and controlling the financial affairs of the Joint Venture and ensuring that proper books of account and financial records relating to affairs of the Joint Venture are maintained in an approved form and submitted to the Management Committee for approval at regular intervals, which shall not be longer than one month.

4.2.4.5 Determining the necessity for and the details of any changes in the duties and responsibilities of Members provided that any resulting changes in Members' Interests shall be unanimously approved by the Members.

4.2.4.6 Determining the terms and conditions of employment of personnel and the emoluments applicable to staff seconded to the Joint Venture by the Members.

4.2.4.7 Controlling and approving the appointment of all subcontractors.

4.2.4.8 Procuring, after the completion of the Contract and the release of all bonds, guarantees and sureties given in respect of the performances of the Joint Venture and the Members, the preparation and auditing of a final set of accounts, on the basis of which the final profits, or losses, attributable to the individual Members shall be determined and any necessary adjustments effected.

5 RESOURCES OF JOINT VENTURE

The resources to be utilised by the Joint Venture in securing and executing the Contract shall, insofar as these are to be provided directly by the Members, be as set out in the Schedules and may, from time to time, be amended by decision of the Management Committee, provided that the Member's Interests are not, except with the unanimous approval of the Members, affected thereby.

Similarly, specific areas of responsibility of the Members for the performance of work and the provision of facilities shall be as set out in the Schedules and may, from time to time, be amended by decision of the Management Committee, provided that the Members' Interest are not, except with the unanimous approval of the Members, affected thereby.

5.1 Schedule 'A' (General)

Schedule 'A' shall contain general information relating to the Joint Venture including, inter alia, the following :

1. The Employer's name and address.
2. A brief description of the Contract and the Deliverables.
3. The name, physical address, communications addresses and domicilium citandi et executandi of each Member and of the Joint Venture.
4. The Members' Interests.
5. A statement indicating whether, or not, Specific Provisions apply to the Agreement.
6. A schedule of insurance policies which must be taken out by the Joint Venture and by the individual Members.
7. A Schedule of sureties, indemnities and guarantees that must be furnished by the Joint Venture and by the individual Members.
8. Details of the persons, who, in the event of failure by the Members to reach agreement on the appointments of mediator and arbitrator, will nominate appointees to these positions in terms of Clauses 8.2 and 8.3.

5.2 Schedule 'B' (Financial)

Schedule 'B' shall contain information regarding the financial affairs of the Joint Venture including, inter alia, the following :

1. The working capital required by the Joint Venture and the extent to which and manner whereby this will be provided and/or guaranteed by the individual Members from time to time.
2. The banking accounts that are to be opened in the name of the Joint Venture and the manner in which these are to be operated.
3. The rates of interest that will be applicable to amounts by which Members are in debit, or credit, to the Joint Venture.
4. The names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture.
5. The intervals at which interim financial accounts and forecasts will be prepared for approval by the Management Committee.
6. Insofar as not covered in Schedule 'C', the basis on which contributions of various types by the Members towards the work of the Joint Venture in securing, executing, managing and satisfactorily completing the Contract, will be valued.
7. The basis on which profits and/or surplus cash will, if available from time to time, be distributed to Members.
8. The basis upon which losses, if any, are to be apportioned to Members.

5.3 Schedule 'C' (Contributions by Members)

Schedule 'C' shall set out the contributions of various types, other than cash, that will be made by the individual Members towards the work and obligations of the Joint Venture and shall, as far as possible, indicate the monetary values to be placed on such contributions, which may include, inter alia, the following :

1. Staff seconded to the Joint Venture.
2. Work carried out and services provided to, or on behalf of, the Joint Venture.
3. Plant, equipment, facilities etc. made available for use by the Joint Venture.
4. Materials and goods supplied to, or on behalf of, the Joint Venture.
5. Licences, sureties, guarantees and indemnities furnished to, or on behalf of, the Joint Venture.
6. Joint Venture Disclosure form required for the Contract.

6. **BREACH OF AGREEMENT**

If a Member breaches any material provision of the Agreement, or delays or fails to fulfil its obligations in whole, or in part, and does not remedy the situation within fourteen calendar days of receipt of notice from the Management Committee, or another Member, to do so, the other Members shall have the right, without prejudice to any other rights arising from the default, to summarily terminate the Agreement and re-assign the defaulting Member's rights and obligations in the Joint Venture as they see fit and withhold any moneys due to the defaulting member by the Joint Venture.

Each Member shall indemnify the other Members against all losses, costs and claims which may arise against them in the event of the Agreement being terminated as a result of breach of the Agreement by the said Member.

7. **INSOLVENCY OF MEMBER**

Should a Member be placed in liquidation, or under judicial management, whether provisionally or finally, or propose any compromise with its creditors, the other Members shall be entitled to proceed in terms of Clause 6, as if the Member had breached the Agreement.

8. DISPUTES

8.1 Settlement

The Members shall negotiate in good faith and make every effort to settle any dispute, or claim, that may arise out of, or relate to, the Agreement.

If agreement cannot be reached, an aggrieved Member shall, if he intends to proceed further in terms of Clause 8.2 hereof, advise all other Members in writing that negotiations have failed and that he intends to refer the matter to mediation in terms of Clause 8.2.

8.2 Mediation

Not earlier than ten working days after having advised the other Members, in terms of Clause 8.1, that negotiations in regard to a dispute have failed, an aggrieved Member may require that the dispute be referred, without legal representation, to mediation by a single mediator.

The mediator shall be selected by agreement between the Members, or, failing such agreement, by the person named for this purpose in Schedule 'A'. The costs of the mediation shall be borne equally by all Members.

The mediator shall convene a hearing of the Members and may hold separate discussions with any Member and shall assist the Members in reaching a mutually acceptable settlement of their differences through means of reconciliation, interpretation, clarification, suggestion and advice. The Members shall record such agreement in writing and thereafter they shall be bound by such agreement.

The mediator is authorised to end the mediation process whenever in his opinion further efforts at mediation would not contribute to a resolution of the dispute between the Members.

8.3 Arbitration

Where a dispute or claim is not resolved by mediation, it shall be referred to arbitration by a single arbitrator to be selected by agreement between the Members or, failing agreement, to be nominated by the person named for this purpose in Schedule 'A'.

The Member requiring referral to arbitration shall notify the other Members, in writing, thereof, not later than thirty calendar days after the mediator has expressed his opinion, failing which the mediator's opinion shall be deemed to have been accepted by all Members and shall be put into effect.

Arbitration shall be conducted in accordance with the provisions of the Arbitration Act No. 42 of 1965, as amended, and in accordance with such procedure as may be agreed by the Members or, failing such agreement, in accordance with the rules for the Conduct of Arbitrations published by the Association of Arbitrators and current at the date that the arbitrator is appointed.

The decisions of the arbitrator shall be final and binding on the Members, shall be carried into immediate effect and, if necessary, be made an order of any court of competent jurisdiction.

9. DOMICILIUM

The Members choose domicilium citandi et executandi for all purposes of and in connection with the Agreement as stated in Schedule 'A'. A Member shall be entitled to change his domicilium from time to time, but such change shall be effective only on receipt of written notice of the change by all other Members.

Member No. 1

Thus done and signed at _____ this _____ day of _____ 20__

For and on behalf of _____ [Company]

by [name] _____ who warrants his authority to do so.

As witnesses 1. _____

As witnesses 2. _____

Member No. 2

Thus done and signed at _____ this _____ day of _____ 20__

For and on behalf of _____ [Company]

by [name] _____ who warrants his authority to do so.

As witnesses 1. _____

As witnesses 2. _____

Member No. 3

Thus done and signed at _____ this _____ day of _____ 20____

For and on behalf of _____ [Company]

by [name] _____ who warrants his authority to do so.

As witnesses 1. _____

As witnesses 2. _____

[Allow for additional parties as necessary].

0

Occupational Health and Safety Specification

(OHSE SPEC)



health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Project Name:

Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

Project Code:

0

Agent Name:

Ms. Slindile Ngcobo (Head Office)

Region:

Head Office

District:

Head Office

Ward no.:

REFER TO ANNEXURE

WAIVER OF CONTRACTOR'S LIEN

DEFINITIONS

Contractor: _____

Employer: Head: Health (KZN Department of Health: Province of KwaZulu-Natal)

Agreement: GCC FOR CONSTRUCTION WORKS - SECOND EDITION 2010

Works (description): Replacement of an existing 320kVA Generator and 500kVA Generator with new 450kVA and 630kVA Indoor Type Emergency Power Generators including Associated Electrical Equipment and Minor Building Work.

Site: Port Shepstone Regional Hospital

AGREEMENT

The Contractor waives, in favour of the Employer, any lien or right of retention that is or may be held in respect of the Works to be executed on the Site

Thus done and signed at _____ on _____
[Date]

Name of signatory

Capacity of signatory

As witness

For and on behalf of the contractor who by signature hereof warrants authorisation hereto

Location	
Locality Name	Port Shepstone
Municipality	uGu District Municipality
Subplace	
Ward	
Government Facility	Port Shepstone Regional Hospital
Latitude	-30.7428
Longitude	30.4515
Physical Address/Location	7 Bazley Street, Port Shepstone

Please do a print preview
before printing.

PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF HEALTH

BID No. ZNB _____

PORT SHEPSTONE REGIONAL HOSPITAL
REPLACEMENT OF AN EXISTING EMERGENCY POWER GENERATORS INCLUDING
ASSOCIATED ELECTRICAL EQUIPMENT.

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- PART TWO – TECHNICAL SPECIFICATION**
- PART THREE – PARTICULAR SPECIFICATION**
- PART FOUR - SCHEDULE OF EQUIPMENT**
- PART FIVE - BILL OF QUANTITIES**

PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF HEALTH

BID No. ZNB _____

PORT SHEPSTONE REGIONAL HOSPITAL
REPLACEMENT OF AN EXISTING EMERGENCY POWER GENERATORS INCLUDING
ASSOCIATED ELECTRICAL EQUIPMENT
PART ONE

PROJECT SPECIFICATIONS

1 NOTES TO BIDDERS

- 1.1 The institutions will remain open and operational at all times therefore the Contractor shall make the necessary arrangements with the Institutional Management and maintenance staff for any power outages that are required. This may necessitate weekend work
- 1.1.2 All items to be priced fully inclusive of all charges e.g. labour, transport, scaffolding, materials, profit, etc., but excluding Value Added Tax.
- 1.1.3 The Administration reserves the right to negotiate prices in the Schedule of Prices.
- 1.1.4 All redundant material and rubble shall to be removed from the institution's property immediately. Material removed from site must have approval for site removal together with appropriate disposal certificate.
- 1.1.5 All equipment and materials used in this contract shall be that which is specified or **approved prior to submission and closure of the bid.**
- 1.1.6 The Contractor is advised to examine all the drawings (if any) and to visit the site prior to tendering to acquaint him/herself with the nature of the work to be done and access to the siting of the existing buildings etc., as no claim will be allowed on the grounds of ignorance of the conditions under which the work will be executed.
- 1.1.7 All items in the Schedule of Prices are **PROVISIONAL** and subject to re-measure after installation.
- 1.1.8 The Schedule of Prices shall be read in conjunction with the Scope of Work. Any discrepancies or omissions shall be brought to the attention of the Project Leader immediately.
- 1.1.9 **Preference will be given to Bidders who have registered offices / workshops within the borders of the Province of KwaZulu-Natal. This is in an effort to reduce response times to call outs for breakdowns in the more remote areas of the Province.**
- 1.1.10 **Only Contractors who are registered with a CIDB Grading of 1 EB or higher shall be considered.**

1.2 SCOPE OF CONTRACT

- 1.2.1 The Scope of the Contract is contained in Part Three (Particular Specification) contained hereunder.

1.3 PERIOD OF CONTRACT

Three (3) Months as the completion period for the Contract from the date of site handover.

1.4 SITE AND MODE OF PROCEDURE

The work contained in this contract will be carried out on the site of **Port Shepstone Regional Hospital**, uGu District in the Province of KwaZulu-Natal.

Damage to the existing buildings - Bidders to note that any damages done or occurring to any of the buildings will be repaired at the expense of the contractor/ Bidder.

The work undertaken shall be to the satisfaction of the KwaZulu-Natal Department of Health.

1.5 SATISFACTORY INSTALLATION

All work shall be carried out according to the Department of Health's Standard Preambles to all Trades, the OHS Act, National Building Code of Practices and Regulations, the KZN DOH Policy Document for the Design of Electrical Installations and the SANS 10142-1 Wiring Code.

Copies of these documents are available from the office of the Manager, Infrastructure Development KwaZulu-Natal Department of Health, Townhill Office Park, 35 Hyslop Road, Pietermaritzburg and may be obtained on request.

PROVINCE OF KWAZULU-NATAL

BID No. _____

PORT SHEPSTONE REGIONAL HOSPITAL
REPLACEMENT OF AN EXISTING EMERGENCY POWER GENERATORS INCLUDING
ASSOCIATED ELECTRICAL EQUIPMENT.

PART TWO

TECHNICAL SPECIFICATION

1. GENERAL: PLANT ROOM TYPE STANDBY GENERATOR

FAILURE TO COMPLETE THE SCHEDULE OF INFORMATION IN ITS ENTIRITY SHALL LEAD TO THE DISQUALIFICATION OF THE BID.

The standby generator set herein specified is to be installed at **Port Shepstone Regional Hospital located in Port Shepstone uGu District**. The ambient temperatures are 40°C maximum and 10°C minimum and +- 500m above mean sea level.

In order to best meet South Africa's employment targets, locally assembled generator sets will receive preference.

Due to the critical nature of this installation, ONLY genuine and accredited DIESEL GENERATOR SET MANUFACTURERS / ASSEMBELERS with Local 24 hour support and IN HOUSE maintenance facilities will be considered.

When pricing this document, allowance must be made for the installation to be carried out after hours and / or over a weekend at a time suitable to the KZN Department of Health's institution.

Prior to any shutdown it should be agreed with the Health Institution whether any temporary standby plant is required. Apart from this, downtime must be kept to a minimum and once an installation starts, it must be completed and commissioned without any interruptions.

The Tenderer must provide documented proof that they have the staff and capacity to carry out this type of installation. Including additional rotational staff on standby in the event of increased staff infection due to Covid19.

The whole of the installation shall be carried out in accordance with:

- The Department of Health Policy Document on the Design of Electrical Installations Revision 7 of 2013.
- All low voltage switchgear and control gear assemblies are to comply to SABS 1473 Part 1 - 1989 /IEC 439 - 1 1985.
- An Electrical Certificate of Compliance, in accordance with the SANS 10142-1 Wiring Code will be required for all Electrical Works.
- The Occupational Health and Safety Act and Regulations 85 of 1993.
- The Municipal By-laws and any special requirements of the Supply Authorities of the area or district concerned.
- Local Fire Regulations.
- National Building Regulations – SANS 10400 Part T
- The contractor should fully familiarise himself with these documents prior to quoting.

2. SCOPE OF CONTRACT

The contract comprises the design, manufacture, assembly, delivery to site, off-loading at site, installation, testing, commissioning and handing over in first class working order of a complete standby diesel generating set and all ancillary equipment necessary to comply with the requirements of this specification.

The plant generally shall comprise a diesel engine coupled to an alternator mounted on a common base, a set of starting batteries, automatic charging unit, interconnecting cables, a control panel housing the generator M.C.C.B. and all necessary switchgear, including the changeover equipment and on-load bypass switch, together with a fuel system, capable of running the set for 72 hours at full load.

- Removal from site of an existing :
- 125 kVA generator and installation of a new 150 kVA plantroom type generator.
- Minor building work to enlarge existing generator plant room.
- Decommission and rig out of position and out of the generator room the existing 320kVA Roll-Royce Gen Set as well as the 500kVA Volvo Genset. Make safe and remove from the generator room the existing generator sets.
- Manufacture, supply and deliver a single 450 kVA, 400V, 50Hz, diesel standby generator set (to replace 320kVA Rolls-Royce Genset).
- Manufacture, supply and deliver a single 630 kVA, 400V, 50Hz, Diesel Standby Generator Set (to replace 500kVA Volvo Genset)
- Supply and deliver all the needed protection equipment, electrical panels, cables and terminations needed for the complete installation.
- Manufacture, supply, deliver and install the engine exhaust.
- Cast suitable plinths for both generator
- Remove existing diesel fuel day tank. Day tanks will be part of the diesel generator.
- Day tank to be installed beneath the generator and have sufficient capacity to allow for 72 hour standby power.
- Existing 9000L bulk tank to feed generators day tank - All pipework and electronic cables to be necessary for the capacity upgrad to be installed.
- Supply and install the standard controller with WebNet reporting module, which allows remote monitoring of the plant and diesel system.
- Refurbish the Generator LV Room. This includes paintwork and finish of walls, floor and ceiling;
- Refurbish plant room: doors, windows, vents, cable tunnels, lighting, LV panels and make good wall-mounted drawings.
- Install and commission the fire protection for the generator set
- Obtain Fire Compliance of the Installation
- Obtain Electrical Certification of Compliance for the electrical installation
- Upgrade LV Panel – including change-over & bypass switches, breakers, busbars, wiring
- Suitable ventilation/heat extraction system to be installed; all ductwork/cowls etc for ventilation purposes for both generators are to be replaced.
- Training to be provided to selected staff at the Port Shepstone Hospital.
- Maintain the installations for 1 year after Practical Completion

- As built drawings: standby plant arrangement, schematics of plant room, complete electrical system.

3. PLANT LOCATION

The standby diesel generating set shall to be installed as indicated under Part Two Particular Specification which forms part of this document.

Tenderers are advised to acquaint themselves with the site conditions including access, as no claim on the grounds of want of knowledge will be entertained.

4. PLANT DUTIES

The diesel generating set and its ancillary equipment shall normally operate as an automatic mains failure unit. It shall be capable of delivering its full rated output at any time and any ambient conditions likely to occur at the site. The generating set will not be required to be synchronized with the main supply.

5. SYSTEM

The system to which the plant is to be connected is 3 phase, 4 wire, 400 volt between phases and 230 volt between phase and neutral, with a frequency of 50 Hz.

6. RATING

Note: The units shall be capable of delivering:

- a. 450 kVA at 0.8 power factor at PRIME POWER.
- b. 630kVA at 0.8 power factor at PRIME POWER.

The unit shall deliver 60% of the initial load + - 15 sec after start up and the balance of load 40% shall be delivered after a further 10 sec.

The rating of the diesel generating set shall be based on operation of the set when equipped with all necessary accessories such as radiator fan, air cleaners, lubricating oil pump, fuel transfer pump, fuel injection pump, water circulating pump, and battery charging alternator.

The generator set shall be capable of delivering the specified output continuously under the site conditions without overheating. The engine shall be capable of delivering an output of 110% of the specified output for one hour in any period of 12 hours consecutive running in accordance with BS5514.

7. DIESEL ENGINE

7.1. Type

The engine shall be of the multi cylinder, four stroke cycle, cold starting, direct injection, compression ignition type, suitable for operation on diesel fuel.

Only genuine engines with full local Original Equipment Manufacturer (O.E.M.) backup will be accepted. Grey products and "copies" will under no circumstances be accepted and will lead to the Tender being rejected.

7.2. Cooling System

The engine shall be of the water cooled type and the cooling system shall be of sufficient capacity to cool the engine when the set is delivering its full rated load in the ambient conditions specified in Clause 1.

The engine shall be equipped with a heavy duty type radiator, complete with engine driven fan and centrifugal water circulating pump and a thermostat to maintain the engine at the makers recommended temperature level.

A thermostatically controlled immersion heater shall be provided and fitted in the engine cooling circuit to ensure easy starting of the engine at any ambient temperature.

The heater shall be so fitted that it can easily be withdrawn without having to drain the system. The heater shall be suitable for a 220 volt 50 Hz supply.

A low radiator level shutdown sensor switch shall be fitted in the radiator header tank. A separate temperature sensor must be fitted on the block for the normal high engine temperature shutdown and gauge.

The sight gauge shall be easily accessible for reading purposes and it shall be safe and easy to top up the coolant without having to climb inside or over the unit. This includes indoor and outdoor units.

7.3. Speed

The engine speed shall not exceed 1500 R.P.M. at normal full load conditions.

7.4. Fuel

The engine shall be capable of satisfactory performance on a commercial grade of distilled petroleum fuel oil such as Number 2 fuel oil. (Commercial grade diesel fuel: **500ppm**).

7.5. Rating

The engine shall be suitable for continuous running at the specified speed, delivering its rated output at the specified site conditions.

In addition the engine shall be capable of delivering 110 % load for one hour, after the set has been running at full load for a period of six hours and shall, after the overload period of one hour be capable of maintaining the rated output continuously without any undue mechanical strain, overheating, incomplete fuel combustion or other ill effects.

The engine shall have sufficient capacity to start up and shall within 15 seconds from mains failure, supply the full rated load at the specified voltages and frequency.

7.6. Governor

The engine shall be of the latest electronic type, or controlled by a governor to maintain governed speed for 50 Hz operation. Class A1 governing in accordance with B.S. 5514 as amended is required.

7.7. Fuel System

The complete system including bulk tank and base tank shall be sized to allow the sets to run for 72 hours at full load.

An engraved label shall be installed in a conspicuous area on the generator control panel that indicates the following:

- Base tank capacity.
- Bulk tank capacity
- Full load litres per hour consumption.

7.7.1 Base tank

The fuel tank shall be an integral part of the base frame of the generator set. The tank shall have sufficient capacity to run the engine on full load for a minimum period of 12 hours.

Existing Day tanks to be removed upon installation of the new generator sets which include an integrated day tank installed within the base frame.

The base tank shall be a closed channel self-bund walled type that shall be of sufficient capacity to contain any spillage, equivalent to 80% in volume of the base tank. A float level alarm connected to the generator controller shall be incorporated into the bund area located such that the alarm will be activated when 50% of the volume of the bund area has been reached in the event of any diesel fuel leakage.

The **base tank** shall be fitted with the following:

- A suitable fuel filter.
- Breather pipe
- Visual dial fuel level indicator
- Removable inspection cover
- Tamper proof drain plug
- Filler pipe & lockable cap
- Low level and extra low shutdown alarm sensors. These shall supply an audible alarm and visible indication on the control panel.
- Spillage containment sensor. It shall supply an audible alarm and visible indication on the control panel.

In addition, pump, solenoid valve start, stop sensors are required to control the automatic filling of the base tank from a remote free standing tank if applicable.

The set shall be supplied with a hand operated "wing pump" and a suitable length of oil resistant hose. The hose shall be of the "push lock" type and shall be sufficient in length to extend to the door for filling from 200 litre drums.

Drain plugs shall be constructed in such a manner that shall prevent the removal of such drain plug by conventional means i.e. shifting spanner, pliers etc.

7.7.2 Bulk Tank (NOT APPLICABLE UNDER THIS CONTRACT)

The existing bulk tank shall be inspected including:

- pressure testing,
- wall thickness and integrity inspection,
- Diesel cleaning/remediation.

The composite bulk tank together with all interconnecting supply and return pipes, low level alarm, **visual** fuel level indicators, lockable shut off valves, breather and an automatic filling system shall be provided and installed to the base tank. This installation shall be carried out by a specialized petrochemical installation contractor in accordance with SABS 0131 Part 2/1979 and SABS 089 Part 3/1991.

The automatic filling of the base tank, from the bulk tank, shall be controlled by level switches mounted in the base tank. These switches shall start and stop the electric self-priming pump all of which should be supplied via the essential supply system.

Manually operated filling of the base tank from the bulk tank shall be by way of a spring loaded push button switch that shall switch off the pump if the push button switch is released by the operator.

Drain plugs shall be constructed in such a manner that shall prevent the removal of such drain plug by conventional means i.e. shifting spanner, pliers etc.

7.8. Lubricating

The engine shall be provided with a forced feed lubricating system with a gear type lubricated oil pump for supplying oil under pressure to the main bearings, crank pin bearings, pistons, piston pins, timing gears, camshaft bearings, valve rocker mechanism and all other moving parts.

Full flow replaceable element type oil filters, conveniently located for servicing, shall be provided. Filters shall be provided with a spring loaded by-pass valve to ensure circulation if the filters become clogged.

7.9. Cylinder Liners

The engine shall be provided with removable wet or dry type cylinder liners of close grained alloy iron.

7.10. Air Cleaners

The engine shall be provided with one or more dry type air cleaners which shall provide positive air filtration.

7.11. Exhaust System

The engine shall be fitted with an efficient **Grade 304** stainless steel for coastal areas. Flexible bellows shall be fitted between the exhaust outlet and the silencer. The flexible piping must under no circumstances be used to form a bend or compensate for misalignment. The silencer shall be located in the plant room and the discharge pipe run from the silencer out through the wall, upwards towards the roof, approximately 2m above roof level. The silencer shall be of the highly efficient type suitable for use in residential areas and shall be capable of providing 20 to 30 decibels of suppression.

The silencer and discharge piping shall be suitably supported.

The exhaust silencer shall be suitably lagged then clad in polished stainless steel sheet. Openings through the wall are to be neatly drilled by the Standby Plant Contractor and stainless steel flashing plates must be fitted both sides. The end of the exhaust shall be cut to a 45 degree angle, in order to prevent rain ingress and mesh shall be welded into the end to prevent birds or rodents **from entering the pipe**. Exhausts to be fitted with "venturi effect" cowls designed for Diesel Exhaust gas stacks. Cowls should be suitable for preventing weather ingress and up to 15% flue dilution, reducing heat and pollution concentration

The end of the exhaust pipe shall protrude beyond the eaves of the building by at least 300mm to prevent the accumulation of soot on the eaves of the building.

7.12. Flywheel

The flywheel shall be designed to limit the cyclic irregularities to within the limits laid down in B.S. 5514 as amended.

7.13. Engine Starting

The engine shall be equipped with a 12/24 volt starting system of sufficient capacity to crank the engine at a speed, which will allow starting of the engine.

The starting equipment shall include a 12/24 volt D.C. starter motor engaging directly on the flywheel ring gear. A heavy duty battery charging alternator and maintenance free batteries of the Delco/Deltec type shall be supplied. The batteries shall be mounted in a lockable battery box.

The batteries shall be connected to the engine with suitably rated P.V.C. insulated flexible leads.

The batteries shall have sufficient capacity to provide three automatic attempts to start immediately followed by three manual attempts without any appreciable drop in voltage. The automatic attempts to start shall each be of not less than 10 seconds duration with 10 second intervals between and the manual attempts shall be based on the same cranking period.

A device shall be provided to limit the cranking time of each automatic attempt to start, to the 10 seconds specified above and to provide three automatic attempts after which the automatic starting mechanism will cut out until manually reset and at the same time sound an audible alarm and illuminate the L.E.D. on the generator controller. The engine driven battery charging alternator shall have sufficient capacity to recharge the batteries back to normal starting requirements in not more than six hours.

A battery charging unit of the trickle charge type shall be provided to maintain the batteries at full capacity when the set is at rest. The charging equipment shall be connected so that the battery is normally charged from the mains, but is also charged under mains failure conditions from the diesel generating plant and if required via an inhibitor relay to prevent dual charging. The unit shall be complete with voltmeter, push button test, D.C. and A.C. protective gear. The charging unit shall be incorporated in the diesel generator control cabinet.

7.14. Engine Instruments

As per the Deep Sea DSE 7320 Controller fitted with DSE Webnet DSE890 Gateway complete with separate GPS and GSM antennae.

7.15. Safety Controls

The engine shall be equipped with the safety controls as specified in 11.4.

7.16. Engine/Alternator Coupling and Base

The engine and alternator shall be direct coupled and arranged for operation at 400/230 volt, 50Hz and 1500 RPM.

A steel fabricated base-frame (incorporating the self banded base fuel tank) with anti-vibration mounts between the engine / alternator combination and base shall be provided and must be able to be placed directly on the plant-room floor.

8. RADIATOR EXTRACT DUCTING

A galvanized duct shall be provided and installed between the radiator face and outlet louver to positively expel and duct the hot air out of the plant room. A flexible section shall be fitted between the radiator face and duct in order to prevent the recirculation of hot discharged air.

9. A.C. GENERATOR

As per the engine requirements, only genuine and locally supported recognised Original Equipment Manufacturers (O.E.M.) alternators will be acceptable. Grey products and copies from the East are unacceptable and will result in the Tender being rejected.

9.1. Rating

The generator shall be a 400/230 volt, 3 phase, and 4 wire 50 Hz machine. The generator rating shall be applicable for continuous service application.

Note: The units shall be capable of delivering 450kVA & 630kVA, both at 0.8 power factor. The unit shall deliver 60% of initial load + - 15 sec after start up and the balance of load 40% shall be delivered after a further 10 sec.

9.2. Construction and Manufacture

The generator shall be a revolving field type, coupled directly to the engine flywheel through a flexible disc for positive alignment. The generator housing shall bolt directly to the engine flywheel housing and shall be equipped with a heavy duty ball bearing support for the rotor. The motor shall be dynamically balanced up to 25 % over speed.

The generator shall be of heavy duty compact design. Insulation shall be Class H as recognised by B.S.5514.

The generator field excitation shall be performed by a rotating exciter mounted on the generator motor shaft through a brushless rotating diode system. The voltage regulator shall be of the static-magnetic type with silicon diode control. It shall be mounted on the top or side of the generator and enclosed in a drip proof enclosure. A built in voltage adjusting rheostat shall provide 10 % voltage adjustment.

9.3. Performance

The generator shall be capable of continuously delivering the full rated load specified in Clause 9.1 and of providing a 10 % overload for the period and in the manner specified for the engine in Clause 7.5.

9.4. Wave Form

The shape for the voltage and current wave shall be within the limits laid down by B.S. 5000.

9.5. Voltage Regulation and Response

The alternator shall be self-regulated and shall incorporate an automatic voltage regulator.

The voltage regulation shall not exceed $\pm 2\frac{1}{2}\%$, from no load to full load, including cold to hot variations at any power factor between 0,8 lagging and unity and inclusive of speed variations within the limits stated in Clause 7.6.

Upon application of full load at a power factor of 0,8 lagging the alternator voltage shall recover to within $2\frac{1}{2}\%$ of the steady state value within approximately 300 milliseconds.

Upon application of any load specified in transient, maximum voltage dip shall not exceed 20% of the nominal voltage when measured at the alternator terminals.

9.6 Windings

The generator stator windings shall be star connected with the star point brought out and connected to the neutral terminal in the terminal box on the generator to provide a 400/230 volt supply.

9.7. Terminal Box

The terminal box shall be fitted to suit the cable route and it shall be large enough to allow for glanding and connecting the cables specified in Clause 13.1.

9.8. Radio and T.V. Interference

The generating set shall be suitably suppressed within the limits of B.S. 800 against radio and television interference.

10. DIESEL GENERATOR LV PANEL

10.1. Type and Construction

The control panel shall be designed for the control of the diesel generating set with instrumentation and protective devices to meet both manual and automatic mode requirements.

The control panel shall be of robust construction, floor mounted, totally enclosed and dust proof.

It shall be of folded 1,6 mm thick cold rolled sheet steel construction, suitable for front entry through hinged doors. Internal chassis plates, circuit breaker pans and gland plates shall be provided. Special attention shall be given to vermin proofing and dust sealing.

Prior to painting, all steelwork must be thoroughly degreased and de-rusted and then primed with a zinc chromate primer. All internal steel chassis plates, gland plates and switchgear brackets shall be painted with white powder epoxy paint and all exterior steel surfaces shall be finished with red powder epoxy paint

The control panel shall be built into three separate sections, with the controls, change-over and on load bypass switch each having its own section.

10.2 Bus-Bars, Wiring, Switchgear, etc.

All bus-bars and wiring shall be adequately rated and suitably supported, and control wiring shall be neatly laced and numbered with durable plastic ferrules, for easy tracing. Suitable terminals are to be provided for incoming and outgoing cables. Suitably sized holes shall be punched in the gland plates for the required number of cable terminations for both incoming and outgoing cables. The cables shall be secured to the gland plate by means of cable glands as Pratley, C.C.G. or other approved. The gland plate shall be suitably braced to prevent distortion after the cables are glanded thereto.

Circuit breakers are to be of moulded case construction and the 4 pole motorized change-over switch and "On Load" bypass switch shall be a reputable make, with full local representation.

All instrumentation shall be of 1.5% accuracy and their performance shall comply with B.S.89. The instruments shall be flush mounted and the dial dimensions shall be 96mm x 96mm.

Tenderers must give assurance with their tender that replacements for the equipment, switchgear and instruments used in the construction of the panel are readily available from stock held in the Republic of South Africa.

11. CONTROL PANEL

11.1 The change-over panel is to be situated in close proximity to the generator set.

11.2 The supply and installation of all cables and supports between the generator set and AMF control panel forms part of this contract.

11.3 Changeover Board and Bypass Switch

11.3.1 1 x T.P. Generator MCB. The MCB shall be rated to suit the generator offered and shall have both adjustable thermal and instantaneous overload elements.

11.3.2 Isolators

Add the installation of a set of Four Pole automatic changeover isolators with motor operated mechanisms (Minimum rating of 630amps) and with appropriate auxiliary and control contacts with electrical and mechanical interlocking arrangements to the approval of the Department.

The units are to be Socomec, ABB or other approved **prior to the close of the Tender.**

11.3.3 By-Pass Switch

Add the installation of 1 x On load hand operated by pass switch (Minimum rating of 630amps) of the isolator type with three operating positions labelled "NORMAL", "OFF" and "BYPASS" to enable the changeover equipment and control circuitry to be by passed for maintenance purposes.

The units are to be Socomec, ABB or other approved **prior to the close of the Tender.**

11.3.4 3 x Open ring CT's suitably scaled.

11.3.5 1 x Open ring VT

11.3.6 Load, neutral and earth bus-bars.

11.3.7 Control Section

- a) Automatic constant voltage battery charger.
- b) Electronic governor control (if required and not an electronic engine).
- c) Control C/B for instruments.
- d) Control relays for change over contacts.
- e) 12 / 24 Volt fuel relays.
- f) Terminal strips.

11.3.9 Door Mounted Components

NOTE: While the controller incorporates some of this equipment, the specified items as detailed below are COMPULSORY and shall be mounted on the door.

- a) 1 x Deep Sea DSE 7320 Controller fitted with DSE Webnet DSE890 Gateway complete with separate GPS and GSM antennae.

- b) 3 x Flush mounted Maximum Demand Indicators: 96 x 96mm dial ammeters suitably scaled.
- c) 1 x Flush mounted 96 x 96 mm dial voltmeter, 0 - 500VAC.
- d) 1 x Flush mounted voltmeter selector switch with off, phase to phase and phase to neutral positions.
- e) 1 x Flush mounted running hour meter.
- f) 1 x Emergency stop push button - "Latching type".
- g) 1 x Engine alternator charge indication.

11.4 Generator Control Equipment Requirement

Control systems may not consist of the electromagnetic relay type. **Only the Deep Sea DSE 7320 fitted with DSE Webnet DSE890 Gateway complete with separate GPS and GSM antennae** or equivalent (Subject to approval by DoH prior to the closure of the Tender) solid state programmable systems will be accepted.

The solid state controller and associated systems wiring shall be to the control system manufacturer's guidelines and shall be adequately protected against transient over voltages arising from lightning effects, switching surges, power system surges or mains and alternator borne noise/interference. Full details of the suppression systems are to be provided at tender. Wiring to and from the solid state programmable controller is to be screened as necessary to prevent electrostatic and magnetic interference from adjacent wiring/systems.

12 SPECIFICATION FOR CONTROLLER

FRONT PANEL INDICATORS AND DISPLAYED MESSAGES

The controller status including Warning and Shutdown/ Critical alarms shall be indicated by a combination of LCD and messages on the LCD display.

CONDITION	LCD	DISPLAY MESSAGE	WARNING	SHUTDOWN
HIGH ENGINE TEMPERATURE		X		X
LOW OIL PRESSURE		X		X
OVER SPEED		X		X
UNDER SPEED		X		X
LOW FUEL		X	X	
NO FUEL		X		X
LOW BULK TANK		X	X	
LOW WATER		X		X
START FAIL		X		X
EMERGENCY STOP	X	X		X
SHUTDOWN/ CRITICAL	X	X		X
MAINS PHASE ROTATION FAULT		X		X
HIGH MAINS VOLTS		X		X
LOW MAINS VOLTS		X		X
MAINS ON	X	X		
MAINS ON LOAD	X	X		
ALTERNATOR ON	X	X		

ALTERNATOR ON LOAD	X	X		
ALTERNATOR PHASE ROTATION		X		X
HIGH ALTERNATOR VOLTS		X		X
LOW ALTERNATOR VOLTS		X		X
BATTERY VOLTS FAULT		X	X	
ALTERNATOR CHARGE FAULT		X	X	
AUTO	X			
TEST	X			
MANUAL	X			
MANUAL START	X			
MANUAL STOP	X			
MANUAL OR TEST (NOT IN AUTO)	X			

FRONT PANEL SWITCHES

As per the Deep Sea **DSE 7320** controller

PLANT OPERATION

The mode selector touch pad functions shall be as follows

OFF/RESET Control system off and alarm condition reset.

AUTO Automatic starting and stopping of the set dependant on the mains supply.

MANUAL Starting and stopping activated manually. In this mode the load will not be transferred in the event of a mains failure.

TEST The set will start automatically in this position. The load will be taken by the alternator in the event of a mains failure and will run off load.

LOGGING OF EVENTS

As per Deep Sea **DSE 7320** controller

USER PROGRAMMABLE

As per Deep Sea **DSE 7320** controller

13. ELECTRICAL

13.1 Cables

Cabling between the set and AMF panel shall form part of this contract. The cables shall be installed in accordance with the requirements of the S.A.N.S. Wiring Code (S.A.N.S. 10142-1:2017 as amended).

13.2. Terminations

The cables are to be made off with suitable cable glands as C.C.G., Pratley or other approved technologies. The cable glands at the control panel shall be secured to the gland plate in the base section of the panel and at the generator end to the terminal box.

The cable conductors shall be terminated with suitably rated pressure crimped cable lugs.

13.3. Earthing

The neutral point of the generator shall be solidly connected, by means of an appropriate size of insulated earth conductor, to the earth bar in the alternator and in the panel. All plant, ancillary equipment and steel work in the stand-by plant room shall be suitably bonded together with an appropriate size of bare copper tape which shall also be connected to the earthbar.

An Earth Mat should be installed (if not already in place) of sufficiently low impedance to match the generator rating.

13.4. Phase Rotation

The Contractor shall ensure that the mains and generator phase rotations are identical. The existing phase rotation shall be determined prior to the changeover shutdown to ensure that the new set is connected with the same phase rotation.

14. **PAINTING**

The engine and generator shall be painted **uniformly** with best quality enamel paint in a **colour approved by the Department.**

The control panel shall be painted with best quality powder coated red paint available.

15. **TESTING**

15.1. Testing At Contractor's Premises

An acceptance test shall be carried out at the Contractor's works to establish that the diesel generating plant and its ancillary equipment meets with the requirements of the specification. The Contractor shall give the consultant at least seven days' notice prior to testing the plant. In the event of the plant failing the test and having to be re-tested, at some future date, all expenses (including travelling) incurred by the consultant in attending the second test will be to the Contractor's account. All fuel used for the test will be for the tenderers account.

- a) Simulate a mains failure to automatically start the plant from cold to test its ability to attain full rated speed and voltage and assume the full load in the specified time of ten seconds.
- b) Test run the plant at full load for a period of one hour.
- c) Immediately after the above specified run, without stopping the plant, run it for a further hour at 110 % load.
- d) Test the plant with regards to voltage dip, voltage and frequency recovery, with a sudden application of various loads.
- e) Test the plant for its ability to assume full rated load immediately on failure of the normal supply.
- f) Test and demonstrate (by simulation only where actual Conditions could damage the plant and its ancillary equipment) the correct operation of the engine safety controls and alarms together with other alarms as specified.
- g) Any other tests the client may consider necessary to establish that the diesel generator and its ancillary equipment as a whole is functioning correctly and in accordance with the specification.

NB The Contractor shall provide necessary instruments and equipment for carrying out the tests. The test equipment shall be capable of producing 100 % load for one hour and 110 % load for a further hour continuously without interruption. The test load shall be adjustable and balanced over three phases.

The instrumentation shall be capable of recording and producing printed data pertaining to transient voltage dips, recovery time, applied load, etc., as specified in Clause 9.5.

15.2. Tests On Site

On completion of the installation of the plant, the following test shall be carried out.

- a) Automatic starting and stopping with load change over. The load in this instance will be provided by the client.
- b) Test by simulation only of the operation of the engine protection and alarm devices.
- c) Any other tests which the consultant may require on site.

16. **NOTICES & LABELS**

16.1. Warning Notice

The Contractor shall provide and install in a conspicuous position in the plant room a clearly legible and indelible notice 450 x 450mm made from non-deteriorating material, preferably plastic with red letters on a white background worded to read as follows:

DANGER

THIS ENGINE WILL START WITHOUT NOTICE. TURN THE DEEP SEA CONTROLLER OFF AND PRESS THE EMERGENCY STOP BUTTON BEFORE WORKING ON THE PLANT.

16.2 All labels shall be RED engraved letters on WHITE Ivorene, glued with super glue or pop riveted to cover plates where applicable. Letter size shall be a minimum of 3mm.

17. **OPERATING AND MAINTENANCE MANUALS, ETC.**

The Contractor shall supply three complete comprehensive sets of operating and maintenance manuals complete with schematic control diagrams and complete spare parts list for both engine and generator.

The above manuals are to be handed to the authorised representative on completion of the installation.

In addition a complete schematic diagram of the power and control circuitry is to be mounted in a glass fronted wooden or non-ferrous metal frame and fixed to the plant room wall alongside the control cubicle.

The Contractor is to provide a schedule containing particulars and part numbers of all major components e.g. relays, timers etc. of the control circuitry to facilitate the ordering of spares.

NOTE: Under no circumstances will **Practical Completion** be taken of the plant and **equipment** unless these requirements have been met.

18. DRAWINGS

Within one month of the receipt of order the successful Tenderer shall submit prints of each of the following drawings for approval:-

- a) General arrangement of the stand-by plant switchboard front panel.
- b) Schematic of the complete electrical systems, including starter motor, battery and automatic battery charger.
- c) Dimensioned layout of all plant **and equipment** in the stand-by plant room.

19. SPARE PARTS

Tenderers must **provide an assurance** with their Tender that spare parts for the plant offered by them as a whole are readily available within the Republic of South Africa and to state where these **spare parts** are available.

20. GUARANTEE AND MAINTENANCE

20.1. General

The Contractor shall guarantee and maintain the Contract Works for a period of twelve months after **Works Completion** of the plant. During the maintenance period the Contract Works shall be maintained as specified in Clause 21 by the Contractor and any defective material, equipment or workmanship (excepting proven, willful or accidental damage, or fair wear and tear) shall be made good with all possible speed at the Contractor's expense and to the satisfaction of the client.

20.2. Making Good

When called upon by the client the Contractor shall make good on site and shall bear all expense incidental thereto including making good of work by others, arising out of removal or reinstallation of equipment. All work arising from the implementation of the guarantee or maintenance of equipment shall be carried out at times which will not result in any undue inconvenience to users of the equipment or occupants of premises.

If any defects are not remedied within a reasonable time the client may proceed to do the work at the Contractor's risk and expense, but without prejudice to any other rights which the client may have against the Contractor.

20.3. Latent Defects and Failure to Comply with Specification

The client reserves the right to demand the replacement or making good by the Contractor at his own expense of any part of the Contract which is shown to have any latent defects or not to have complied with the Specification, notwithstanding that such work has been taken over or that the guarantee period has expired.

20.4. Qualification by Tenderer

Should any specified materials or equipment in the Tenderer's opinion be of inferior quality, or be unsuitably employed, rated or loaded, the Tenderer shall prior to the submission of his tender advise the Infrastructure Project Manager accordingly. His failure to do so shall mean that he guarantees the work including all materials or equipment as specified.

21. MAINTENANCE

At six monthly intervals (2) during the guarantee period of twelve months, starting from the date of Works Completion, the Contractor shall adjust and maintain the standby plant and its ancillary equipment in proper working order. As a minimum requirement the Contractor shall:

- a) Check and top-up if necessary, the fluid levels in the radiator, engine sump, fuel oil tank and batteries.
- b) Test run the standby plant and ancillary equipment for a period of 15 minutes.
- c) Wipe down the standby plant and its ancillary equipment and report on any evidence of any fluid leaks or other defects.
- d) Fill in the standby plant logbook.

The cost of such inspections, maintenance, adjustments, repairs, etc., shall be included in the tender price, but the cost of renewing any part which may become worn through fair wear and tear, or damaged beyond the control of the Contractor (provided this is not due to unsuitable design) shall be excluded.

If during the guarantee and maintenance period the standby plant is not in working order for any reason for which the Contractor can be held responsible, then the Contractor will be notified and immediate steps shall be taken by him to remedy the defects. Should the standby plant defects be so frequent as to become objectionable or should the equipment otherwise prove unsatisfactory during the guarantee period of twelve months, the Contractor shall, if called upon by the client, at his own expense replace the whole or such parts thereof as the client may deem necessary with equipment to be specified by the client. Approval - tacit or otherwise - of the equipment installed shall be considered as provisional only and shall not invalidate the client's right as indicated above.

PROVINCE OF KWAZULU-NATAL
DEPARTMENT OF HEALTH

BID No. ZNB _____

PORT SHEPSTONE REGIONAL HOSPITAL
REPLACEMENT OF AN EXISTING EMERGENCY POWER GENERATORS INCLUDING
ASSOCIATED ELECTRICAL EQUIPMENT

PART THREE

PARTICULAR SPECIFICATION

3.1 GENERAL

This particular specification must be read with, and shall form part of, Part Two of this document (Technical Specification).

In so far as the conditions contained herein are at variance with any obtained in the Technical Specifications, the contract shall be interpreted in terms of this Part Three (Particular Specification).

3.2 SCOPE OF WORKS

3.2.1 The contract comprises the design, manufacture, assembly, delivery to site, off-loading at site, installation, testing, commissioning and handing over in first class working order two standby generator sets:

3.2.1.1 450kVA indoor type standby diesel generating sets and all ancillary equipment necessary to comply with the requirements of this specification.

3.2.1.2 630kVA indoor type standby diesel generating sets and all ancillary equipment necessary to comply with the requirements of this specification.

3.2.2 The generator sets shall comprise unless otherwise stated, of a diesel engine coupled to an alternator mounted on a common base, a 24-hour fuel tank, a set of starting batteries, automatic charging unit, interconnecting cables, a control panel housing the generator M.C.C.B. and all necessary switchgear, including the change- over equipment and "on load" bypass switch.

3.2.3 The contractor shall also provide for the following:

- Isolation, disconnection and removal from site of existing cable between generator control panel and generator.
- Supply, delivery, installation and commissioning of 2 x 50mm² x 4 core ECC cabling between the new generator panel and the new generator.
- Supply, delivery, installation and commissioning of a new control panel door housing the generator controller, maximum demand indicators, voltage indicator and voltage selector switch.
- Isolation, disconnection and removal from site of existing cables between existing generator control panel and the redundant generator.
- Allowing for all fuel piping and fittings between new generator day tank and existing bulk fuel tanks including the supply, delivery, installation and commissioning of a 230-volt 50 HZ 550-watt self-priming diesel fuel pump.

- Electrical connection of the self-priming diesel fuel pump.
- Removal from site of redundant generator.
- Testing and issuing of Certificates of Compliance for each new installation.
- Servicing during 12 month guarantee period. (6 monthly intervals)
- Ventilation and Heat Extraction
- Refurbishment of plant room

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EQUIPMENT

PART FOUR

SCHEDULE OF EQUIPMENT

4.1 GENERAL

THE BIDDER MUST COMPLETE THE FOLLOWING SCHEDULE OF INFORMATION AND ARE TO SUBMIT WITH THEIR TENDER COMPREHENSIVE LITERATURE ON THE EQUIPMENT OFFERED.

FAILURE TO COMPLETE THIS SCHEDULE IN ITS ENTIRITY SHALL LEAD TO DISQUALIFICATION OF THE BID.

4.2 DIESEL ENGINE AND ALTERNATOR INFORMATION - DIESEL ENGINE No.1

4.2.1 DIESEL ENGINE No.1 450 kVA 400/230-volt

- a) Make and Model.....
- b) Type (two or four stroke).....
- c) Performance Parameters
 - i) Rated output at sea level:
Prime PowerkVA / kW.
Standby PowerkVA / kW.
 - ii) Rated output atmetres above sea level (Altitude of hospital)
Prime PowerkVA / kW.
Standby PowerkVA / kW.
 - iii) Ambient air temperatures atmetres above sea level (Altitude of hospital)
Minimum °C.
Maximum °C.
- d) Governed speed.....RPM
- e) Number of cylinders.....
- f) Diameter of cylinders.....mm
- g) Stroke of piston.....mm
- h) Piston speed.....m/minute
- i) Type of air cleaner.....

- j) Type of lubricating oil filter.....
- k) Make and type of injection system.....
- l) Type and number of fuel filters.....
- m) Manufacture and type of turbo-charger.....
- n) Manufacturer and type of governor.....
- o) Max cyclic variations.....
- p) Speed variation for sudden release or application of load:
 - i) Temporary.....
 - ii) Permanent.....
- q) Max percentage of rated load that may be applied immediately after start.....
- r) 100% Rated full load may be applied seconds after initiation of starting sequence.....
- s) Specific fuel consumption at full load.
Litres/ HR (submit curves).....
- t) Air quantity required for engine cooling.....cum/min.
- u) Cross sectional area of radiator air discharge outlet required.....

4.2.2 STARTING BATTERY

- a) Manufacturer.....
- b) Type.....
- c) Capacity.....
- d) Voltage.....

4.2.3 ALTERNATOR

- a) Make.....
- b) Type.....
- c) Type of bearings.....
- d) Method of lubrication.....
- e) Rated load at 0.8 power factor
at 380/220 volt 50Hz.....
- f) Continuous rating.....KVA./AMPS
- g) Efficiency of alternator at full load.....

- h) Output voltage within governed speed range at:
 - i) No load..... Volts
 - ii) 50% load..... Volts
 - iii) 100% load..... Volts
 - iv) 110% load..... Volts
- i) Method of voltage regulation.....

4.2.4

CONTROL CUBICLE

- a) Manufacturer.....
- b) Dimensions of control cubicle:
 - Length.....mm
 - Widthmm
 - Height.....mm
- c) Make and type of generator control equipment.....
- d) Type, make and rating of by-pass switch.....
- e) Type, make and rating of motorised change-over isolators.....
- f) Rupturing capacity at rated voltage of main circuit.....k.A.
- g) Method of tripping employed in main circuit breaker.....
- h) Range of load setting of main circuit breaker.....

i) **VOLTMETER**

- i) Make and type.....
- ii) Dial dimensions.....
- iii) B.S.S. accuracy.....

j) **MAXIMUM DEMAND AMMETERS**

- i) Make and type.....
- ii) Dial dimensions.....
- iii) Time lag.....
- iv) B.S.S. accuracy.....

k) **FREQUENCY METER**

- i) Make and type.....
- ii) Dial dimensions.....
- iii) B.S.S. accuracy.....

4.2.5 MASS OF PLANTkg

4.2.6 OVERALL DIMENSIONS OF PLANT

Length.....

Height.....

Width.....

4.2.7 TYPE AND RATING OF EQUIPMENT TO BE USED FOR LOAD TESTS

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

4.2.8 MAKE AND TYPE OF SELF-PRIMING DIESEL FUEL PUMP (If Applicable):

.....
.....

4.3 DIESEL ENGINE AND ALTERNATOR INFORMATION - DIESEL ENGINE No.1

4.3.1 DIESEL ENGINE No.2 630 kVA 400/230-volt

a) Make and Model.....

b) Type (two or four stroke).....

c) Performance Parameters

i) Rated output at sea level:

Prime PowerkVA / kW.

Standby PowerkVA / kW.

ii) Rated output atmetres above sea level (Altitude of hospital)

Prime PowerkVA / kW.

Standby PowerkVA / kW.

iii) Ambient air temperatures atmetres above sea level (Altitude of hospital)

Minimum °C.

Maximum °C.

d) Governed speed.....RPM

e) Number of cylinders.....

f) Diameter of cylinders.....mm

g) Stroke of piston.....mm

h) Piston speed.....m/minute

i) Type of air cleaner.....

- j) Type of lubricating oil filter.....
- k) Make and type of injection system.....
- l) Type and number of fuel filters.....
- m) Manufacture and type of turbo-charger.....
- n) Manufacturer and type of governor.....
- o) Max cyclic variations.....
- p) Speed variation for sudden release or application of load:
 - i) Temporary.....
 - ii) Permanent.....
- q) Max percentage of rated load that may be applied immediately after start.....
- r) 100% Rated full load may be applied seconds after initiation of starting sequence.....
- s) Specific fuel consumption at full load.
Litres/ HR (submit curves).....
- t) Air quantity required for engine cooling.....cum/min.
- u) Cross sectional area of radiator air discharge outlet required.....

4.3.2 STARTING BATTERY

- a) Manufacturer.....
- b) Type.....
- c) Capacity.....
- d) Voltage.....

4.3.3 ALTERNATOR

- a) Make.....
- b) Type.....
- c) Type of bearings.....
- d) Method of lubrication.....
- e) Rated load at 0.8 power factor
at 380/220 volt 50Hz.....
- f) Continuous rating.....KVA./AMPS
- g) Efficiency of alternator at full load.....

- h) Output voltage within governed speed range at:
 - i) No load..... Volts
 - ii) 50% load..... Volts
 - iii) 100% load..... Volts
 - iv) 110% load..... Volts
- i) Method of voltage regulation.....

4.3.4

CONTROL CUBICLE

- a) Manufacturer.....
- b) Dimensions of control cubicle:
 - Length.....mm
 - Widthmm
 - Height.....mm
- c) Make and type of generator control equipment.....
- d) Type, make and rating of by-pass switch.....
- f) Type, make and rating of motorised change-over isolators.....
- f) Rupturing capacity at rated voltage of main circuit..... k.A.
- g) Method of tripping employed in main circuit breaker.....
- h) Range of load setting of main circuit breaker.....
- i) **VOLTMETER**
 - ii) Make and type.....
 - ii) Dial dimensions.....
 - iii) B.S.S. accuracy.....
- j) **MAXIMUM DEMAND AMMETERS**
 - i) Make and type.....
 - ii) Dial dimensions.....
 - iii) Time lag.....
 - iv) B.S.S. accuracy.....
- k) **FREQUENCY METER**
 - i) Make and type.....
 - ii) Dial dimensions.....

4.3.5 iii) B.S.S. accuracy.....kg
MASS OF PLANT

4.3.6 OVERALL DIMENSIONS OF PLANT

Length.....

Height.....

Width.....

4.3.7 TYPE AND RATING OF EQUIPMENT TO BE USED FOR LOAD TESTS

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

4.3.8 MAKE AND TYPE OF SELF-PRIMING DIESEL FUEL PUMP (If Applicable):

.....
.....

PROVINCE OF KWAZULU-NATAL
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PORT SHEPSTONE REGIONAL HOSPITAL
REPLACEMENT OF AN EXISTING EMERGENCY POWER GENERATORS INCLUDING
ASSOCIATED ELECTRICAL EQUIPMENT

PART FIVE

BILL OF QUANTITIES

PREAMBLE TO BILL OF QUANTITIES

Items and Pricing

The Department reserves the right to place an order for any quantities of items included in the Schedules. The Bill of Quantities must also not be assumed to include and describe every detail of the supply requirement, but must be taken and read in conjunction with the other parts of the document. Thus the supplier shall not have claim for further payment in respect of any order which may be described or implied in the contract, although apparently no corresponding items are given in the Bill of Quantities. The supplier shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the contract and of the rates and prices stated in the Bill of Quantities.

Tax and Duties

Prices, tendered and paid, must include all customs, excise and import duties, and any other tariffs or taxes levied by the government or statutory body having jurisdiction on the goods provided under this contract, **including Value Added Tax (applicable to the current rate).**

Rates

Except where provision is made in the Bill of Quantities, the rates and prices inserted shall be the full rates and prices for the service delivered described under the respective items and shall cover all labour, transport, overhead charges and profit, etc. as well as the general liabilities, obligations and risks arising out of the Conditions of Contract, the overhead charges and profit being spread proportionately over the rates of the relative items in the Bill of Quantities.

PART FIVE – BILL OF QUANTITIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
5.1	Isolation, disconnection and removal from site of the existing 320 kVA generator sets.	1	Each		
5.2	Isolation, disconnection and removal from site of the existing 500 kVA generator sets.	1	Each		
5.3	Supply, delivery to site, installation and commissioning of a 450 kVA 400/230-volt plantroom type generator set, including Deep Sea 7320 generator controller as specified. Including 12 hour Base tank.	1	Each		
5.4	Supply, delivery to site, installation and commissioning of a 630 kVA 400/230-volt plantroom type generator set, including Deep Sea 7320 generator controller as specified. Including 12 hour Base tank.	1	Each		
5.5	Supply, deliver, install and commission DSE WebNet DSE890 Gateway complete with a 1 x GPS antenna and 1 x GSM antenna installed in generator set in item 3.1, complete with a data SIM card. The SIM card must be loaded with adequate data for this reporting module for the entire duration of the Two Year (24 months) Warranty Period.	2	Each		
Carry over to Price Page PS 1				R	

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
5.6	<p><u>Generator No. 1: 450kVA</u></p> <p>Isolation, disconnection and removal from site of existing cables and earth wire between generator control panel and generator.</p>	20	m		
5.7	<p>Supply, delivery, installation and commissioning of new suitably rated cables (for the generator rated at 450kVA) between the generator control panel and the generator. Cables must be able to withstand no less than 500A/phase.</p>	20	m		
5.8	<p><u>Generator No. 2: 630kVA</u></p> <p>Isolation, disconnection and removal from site of existing cables and earth wire between generator control panel and generator.</p>	20	m		
5.9	<p>Supply, delivery, installation and commissioning of new suitably rated cables (for the generator rated at 630kVA) between the generator control panel and the generator. Cables must be able to withstand no less than 800A/phase.</p>	20	m		
5.10	<p>Allow for all terminations of newly installed cables using C.C.G or Pratley Glands and shrouds.</p> <p>All terminations shall be done with the use of hydraulic crimping tools only.</p>	16	Each		
Carry over to Price Page PS 2				R	

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
5.11	Supply, delivery, installation and commissioning of a suitably rated generator LV Panel panel as per Section 10 - Technical Specification.	2	Each		
5.12	Supply, delivery, installation and commissioning of a new Control Panel panel as per Section 11 - Technical Specification.	2	Each		
5.13	Removal of existing day tank in 320kVA generator plant room	1	Each		
5.14	Supply, deliver and all pipework and control cabling from bulk feed tank to new standby generator base tanks. This installation shall be carried out by a specialized petrochemical installation Contractor in accordance with SABS 0131 Part 2/1979 and SABS 089 Part 3/1991.	100	m		
5.15	Refurbishment Standby Generator plant rooms	2	Each		
5.16	Bulk Feed tank service, inspection and pressure test	1	Each		
5.17	Supply, delivery, installation and commissioning of fire protection system including Fire Certificate of Compliance	2	Each		
Carry over to Price Page PS 3					R

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
5.18	Supply, delivery, installation and commissioning of ventilation/heat extraction system for standby generator rooms	2	Each		
5.19	Supply, delivery and installation of overhead heavy duty cable tray including all fixtures and fittings between the generator and generator panel	30	m		
5.20	Manufacture, supply, deliver and install engine exhausts for both generator plants.	120	m		
5.21	Testing and commissioning of units on site.	2	Each		
5.22	Electrical compliance certificates for units	2	Each		
5.23	O & M manuals – 3 sets per unit.		Each		
5.24	Servicing of diesel generator during the 12 month guarantee period. Serving intervals shall be 6 months.	4	Each		
5.25	Submission of an approved Safety Plan specifying type of work to be carried out.	1	Each		
Carry over to Price Page PS 4				R	

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
5.26	<p>Isolate, disconnect and remove containerised generator unit from site and return same for storage at Wentworth Hospital Maintenance Section.</p> <p>All trailing cables shall be securely stored inside the container.</p> <p><i>Allowance must be made for the use of a heavy duty truck for transportation of the containerised unit from Port Shepstone Regional Hospital to Wentworth Hospital Maintenance Section.</i></p>		Item		
5.27	Provide credit for the old generator set (320kVA) and all other associated redundant items including cables, LV panel and components.	1	Each		
5.28	Provide credit for the old generator set (500kVA) and all other associated redundant items including cables, LV panel and components.	1	Each		
5.29	Supply and deliver first fill of 500ppm Diesel to Bulk Diesel tank and if necessary to generator units day tank for commissioning	6000	L - litres		
Carry over to Price Page PS 5				R	

FOR IMPORTED ITEMS:

STATE ITEM NUMBER/S:- _____

State the applicable foreign exchange rate 14 days prior to closing date of quotation here: _____

PRICE PAGE

N.B.: This form must be completed in detail signed by the Bidder and bears the signature of a witness.

Failure to comply with these requirements may result in the bid being disregarded.

CLOSING DATE AND TIME: _____ at 11:00.

VALIDITY PERIOD: 12 WEEKS

BID/CONTRACT NO: ZNB _____	PERIOD: _____
REPLACEMENT OF AN EXISTING EMERGENCY POWER GENERATORS INCLUDING ASSOCIATED ELECTRICAL EQUIPMENT	NAME AND ADDRESS OF BIDDER(FIRM) TEL: FAX:
DOES OFFER COMPLY WITH THE SPECIFICATION? <i>If not, furnish details of deviation in space provided for "Remarks"</i>	YES/NO (Delete which is not applicable)
CONTRACT EXECUTION PERIODweeks/months
CARRIED OVER FROM SCHEDULE OF PRICES PS 1	
	PS 2
	PS 3
	PS 4
	PS 5
Subtotal : PS 1 to PS 5	R
VALUE ADDED TAX @ 15% (Rate applicable on date of submission of Bidder)	R
TOTAL BID PRICE	R
REMARKS (If any): (Signature of Bidder) DATE:

.....
(Signature of Witness)

DATE:



KWAZULU-NATAL PROVINCE

HEALTH
REPUBLIC OF SOUTH AFRICA

Occupational Health and Safety Specification

PORT SHEPSTONE HOSPITAL: GENERATOR REPLACEMENT



KWAZULU-NATAL PROVINCE

HEALTH
REPUBLIC OF SOUTH AFRICA

1. Introduction

The Department of Health Kwa Zulu Natal enters into contracts with Contractors to **Install Generators at KZN Health Institutions**. This document describes the requirements of compliance to which the Principal Contractor/Contractor is to adhere in relation to the scope of works. This document defines the minimum management requirement that is to be implemented by the Principal Contractor for the management of Health and Safety on the Health care facility.

The aim of this document is to present the health and safety aspects that need to be controlled and managed on this contract. The client reserves the right to make changes as and when the Client deems fit to address issues of Occupational Health & Safety (OHS) Compliance. The Client will not entertain any claim of any nature whatsoever which arises as a result of costs incurred or delays being experienced due to the Contractor not complying with the requirements of this document or any other applicable legislative requirements imposed on the contractor.

The Principal Contractor will be required to submit a Health and Safety File for approval prior to commencement of work. Arrangements for such approval shall be made with the OHS Department. The Principal Contractor shall submit proof that its appointed contractors Safety file has been approved.

2. Definitions & Abbreviations

- 2.1 “Client” means KZN Department of Health
- 2.2 “CR” refers to the Construction Regulations 2014
- 2.3 “OHS” means Occupational Health and Safety
- 2.4 “DoL” refers to the Department of Labour
- 2.5 “DOH” refers to the Department of Health
- 2.6 “NIHL” refers to the Noise Induced Hearing Loss Regulations
- 2.7 “HCS” refers to the Hazardous Chemical Substances Regulations
- 2.8 “GSR” refers to the General Safety Regulations
- 2.9 “GAR” refers to the General Administrative Regulations
- 2.10 “FR” refers to Facilities Regulations
- 2.11 “PPE” means Personal Protective Equipment
- 2.12 “MSDS” means Material Safety Data Sheets
- 2.13 “EIR” refers to the Electrical Installations regulations
- 2.14 “EMR” refers to Electrical Machinery Regulations
- 2.15 “ERW” refers to Environmental Regulations for Workplaces
- 2.16 **Principal Contractor** means an employer appointed by a Client to perform Construction Work
- 2.17 **Construction Work** means any work in connection with-:
- (a) the construction, erection, alteration, renovation, repair, demolition or dismantling of a addition to a building or any similar structure or;
 - (b) the construction, erection, maintenance, demolition or dismantling of any bridge, dam, road, railway, runway, sewer or water reticulation system, or the moving of earth, clearing of land, the making of excavation, pilling, or any similar civil engineering structure or type of work.
- 2.18 **Construction Manager** means a competent person responsible for the management of the physical construction process and the co-ordination, administration and management of resources on a construction site
- 2.19 **Construction Supervisor** means a competent person responsible for supervising construction activities on a construction site
- 2.20 **Competent Person** means a person who –

(a) Has in respect of the work or task to be performed the required knowledge, training and experience and where applicable, qualifications, specific to that work or task. Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2000 (Act No. 67 of 2000), those qualifications and training must be regarded as the required qualifications and training, and

(b) Is familiar with the Act and with the applicable regulations made under the Act

2.21 OHS Plan means a site, activity or project specific documented plan in accordance with the Client's Health & Safety Specification

2.22 Health & safety File means a file or other record containing information in writing required by Construction Regulations 2014.

2.24 Hazard Identification and Risk Assessment and Risk Control (HIRA) means a documented plan, which identifies hazards, assesses the risks and detailing 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.

2.24 The Act means, unless the context indicates otherwise, the Occupational Health and Safety Act, 85 of 1993 and Construction Regulations 2014 promulgated there under, (OHSA).

2.25 Hazard means a source of or exposure to danger

2.26 Risk means the probability or likelihood that a hazard can result in injury or damage.

2.27 Hazardous Chemical Substance (HCS) means any toxic, harmful, corrosive, irritant or asphyxiant substance, or a mixture or substances, for which an occupational exposure limit is prescribed, or an occupational exposure limit is not prescribed, but which creates a hazard to health

2.28 Construction Plant encompasses all types of plant including but not limiting to, cranes, piling frames, boring machines, excavators, dewatering equipment and road vehicles with or without lifting equipment.

2.29 Occupational Health Practitioner refers to either Doctors or Nurses with the following requirements:

Doctors

- (a) Registered and in good standing with the Health Professions Council of South Africa (HPCSA)
- (b) has a tertiary qualification in Occupational Health or Medicine which is registered as an additional qualification with HPCSA or
- (c) be registered as a specialist in Occupational Medicine with HPCSA

Nurses

- (a) registered and in good standing with the South African Nursing Council (SANC) and

- (b) have a tertiary qualification in Occupational Health Nursing that is recognised and registered with SANC

2.30 dead means at or about zero potential and isolated from any live system;

2.31 earthed means connected to the general mass of earth in such a manner as will ensure at all times an immediate safe discharge of electrical energy;

2.32 portable electric tool means any electrically operated implement, with the exception of ordinary household electrical appliances, which is designed for use with-

- (a) a flexible cord at the supply end and which is intended for use by hand and which is to be carried by hand at the place of work; or
- (b) a flexible cable at the supply end and which is intended for use by hand and which is to be moved by hand at the place of work;

2.33 electrical installation means any machinery, in or on any premises, used for the transmission of electricity from a point of control to a point of consumption anywhere on the premises, including any article forming part of such an electrical installation irrespective of whether or not it is part of the electrical circuit, but excluding

- (a) any machinery of the supplier related to the supply of electricity on the premises;
- (b) any machinery which transmits electrical energy in communication, control circuits, television or radio circuits
- (c) an electrical installation on a vehicle, vessel, train or aircraft; and
- (d) control circuits of 50 V or less between different parts of machinery or system components, forming a unit, that are separately installed and derived from an independent source or an isolating transformer;

2.34 installation work means:-

- (a) the installation, extension, modification or repair of an electrical installation;
- (b) the connection of machinery at the supply terminals of such machinery; or
- (e) the inspection, testing and verification of electrical installations for the purpose of issuing a certificate of compliance;

2.35 master installation electrician means a person who has been registered as a master installation electrician in terms of regulation 11 (2) for the verification and certification of the construction, testing and inspection of any electrical installation;

2.36 point of supply means the point at which electricity is supplied to any premises by a supplier;

3. Client Requirements

3.1 Leadership and Commitment

The Contractor acknowledges the KZN Department of Health's strong commitment to Health and Safety and the Contractor affirms that it has a written Health and Safety Policy, and is actively supported and endorsed by the Contractor's management. The Contractor represents that its written policy is widely disseminated and understood among its employees, and that its policy includes a description of the Contractor's organization, procedures and methods of communication to and from personnel. The Contractor must provide copies of its policy and policy statement to Department of Health (DOH).

3.2 Legal Requirements and Regulations for Health and Safety

The Contractor warrants that it is familiar with the contents and implications of the applicable Legislation; codes of practice, guidelines and standards applicable to the services to be provided. The Act and the Regulations, where applicable, require development and implementation of Work Method Statements for a range of high-risk activities, which, where applicable, the Contractor must develop and implement. The Contractor must ensure that its personnel and its subcontractor's personnel have been informed of all such laws, Acts, regulations, codes of practice, guidelines and standards.

3.3 Contractors' General Requirements for Health and Safety

The Contractor is solely responsible for carrying out the work under the Contract having the highest regard for the health and safety of its employees, the KZN Department of Health's employees and persons at or in the vicinity of the Site, the Works, temporary work, materials, the property of third parties and any purpose relating to the Contractor carrying out its obligations under this Contract.

The Contractor must initiate and maintain safety precautions and programs to conform to all applicable Health and Safety laws or other requirements, including requirements of any applicable government instrumentality and DOH institutions site requirements.

The Contractor must, at its own cost, erect and maintain safeguards for the protection of workers and the public. The Contractor must manage all reasonably foreseeable hazards created by performance of the work.

The Contractor must:

- Provide all things and take all measures necessary for maintaining proper personal hygiene, ensuring safety of persons and property and protecting the environment at or near the Site
- Avoid unnecessary interference with the passage of people and property at or near the Site
- Prevent nuisance and excessive noises and unreasonable disturbances in performing the Services
- Be responsible for the adequacy, stability and safety of all of its site operations.

- Costs for the above are borne by the Contractor
- The Contractor must comply and is responsible for ensuring that all of its Sub-contractors comply with the relevant legislation(s) and statutory regulations for health and safety, the KZN Department of Health's Health & Safety requirements included in the Contract and other document pertaining to health & safety contained in the Program Health & Safety Management System and include standards, policies, procedures, guidelines and safe work instructions
- The contractor must appoint a Competent Safety Officer who will ensure that OHS Act and its regulations are implemented.
- The appointment of a Safety Officer must be approved by DOH
- The Safety Officer must possess a National Diploma in Environmental Health/Safety Management or SAMTRAC and have at least 2years experience.

3.4 Contractor's Health and Safety Management Plan

The Contractor must prepare, implement and administer the Contractor's Health and Safety Management Plan. The Plan is in writing and must be forwarded prior to mobilisation to the site for work under the Contract to the KZN Department of Health's Safety Department for review. The Health and Safety Management Plan must comply with this Contract including Site Rules & Requirements, and applicable law relating to workplace health, safety and environmental standards. Any proposed amendments or revisions to the Contractor's Safety Management Plan are submitted to DOH for acceptance.

The Health and Safety Management Plan must provide a systematic method of managing hazards according to the risk priority and must include all mobilisation and site set-up activities. The Plan will be audited for completeness by the KZN Department of Health.

The contractor shall comply with the requirements of CR 7

The Plan must be presented and accepted by DOH BEFORE permission will be granted to the Contractor to mobilise to site

3.5 Legal & Site-Specific Requirements

The Contractor shall develop, implement and administer Health & Safety Plan. The plan shall be in writing and shall be submitted to DOH within 7 days of the contract being awarded.

The plan shall demonstrate management's commitment to safety and include, but not be limited to, the following minimum auditable elements:

- The Contractors' Safety Policy.
- How safety responsibilities are assigned to different roles within the organisation. Identification of role of Safety Coordinator, and on-site managers
- Selection, placement and training procedures, including induction and ongoing training in 'Basic Safe Work' and Occupational Health & Safety training for newly hired or promoted supervisors.

- Occupational Health & Safety communications and meetings, including daily safe task instructions and project safety meetings.
- Assessment of sub-contractors and Service Providers, including requirements for Health & Safety Plans.
- Safety awareness.
- Nomination of personnel to carry out safety inspections.
- Contractor senior management involvement
- Rules and regulations including safety procedures the Contractor has in place for recurring work activities
- Personal protective equipment rules.
- Control of dangerous and hazardous substances
- System of hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication.
- Verification procedures including
- Daily site safety inspections and audits
- Inspection of plant, tools and equipment prior to introduction to site and at least monthly thereafter
- Accident/incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators
- Evacuation and emergency planning
- Rehabilitation procedures that encourage an early return to work
- Record keeping, including details of what is kept and for how long

3.5.1 Hazard Identification, Risk Assessment and Risk Control

- The development of a work scope and activity risk profile identifying and considering, safety, health and environmental hazards and exposures.
- Controls to manage risks identified within the risk profile will be formalised and implemented
- Personal Protection Equipment
- The hazard identification and risk assessment process for specific operations and activities and for new activities identified after the development of the project/work scope and activity risk profile.
- The process to be used to review the effectiveness of risk controls
- Workplace hazard inspections
- The implementation of a safety observation and coaching process conducted as a minimum by persons in leadership roles

- Method by which daily activities will be assessed for hazards and controls defined before work commences
- Contractor will carry out inspections and maintain requests of the identification of and implementation of inspection and maintenance controls for plant, mobile plant, equipment and tools requiring formal management.

3.5.2 Risk Assessment

- The principal contractor must, before the commencement of any work and during such work, have risk assessments performed by a competent person appointed in written.

The risk assessment should include-

- (a) the identification of risks and hazards to which persons may be exposed to
 - (b) an analysis and evaluation of the risks and hazards identified based on a documented method
 - (c) a documented plan and applicable safe work procedures to mitigate reduce or control the risks that have been identified
 - (d) a monitoring plan and
 - (e) a review plan
- Furthermore, the contractor shall conduct job/task specific risk assessment. Communication of the risk assessments shall be kept in the OHS file.
 - Risk assessment must be performed by a trained risk assessor who has been appointed in writing.
 - The principal contractor shall comply with the requirements of CR 9

3.5.3 Task Specific Risk Assessment

Prior to the commencement of each work activity, a Task Specific Risk Assessment (HIRA) is completed; documented and submitted to KZN Department of Health for approval prior to the task commencing. The purpose of the HIRA is to identify all potential hazards associated with the Work and the Work environment, assess the risk these hazards present and then to provide risk control action that deals with those hazards, as well as providing to the workforce involved in the particular work activity, details of any hazards and the proposed controls.

The Task Specific Risk Assessment must:

- Describe the operation to be performed in the sequence of the basic job steps.
- Identify the hazards or potential hazards at each step.
- Identify the possible consequences for each hazard at each step.

- Assess the Initial Risk Score that each hazard presents (Probability x Severity x Frequency), the total score will be used to identify the Risk Ranking/Priority Factor.
- Once control measures have been considered and implemented, a Revised Risk Score must be allocated to each hazard.
- Identify the Site Rules that apply.
- Describe how the hazard is controlled such that the residual risk is as low as reasonably practicable and is acceptable to the work crew.
- Identify the related Work Instruction if appropriate.
- Be reviewed prior to each shift.
- Be acknowledged by way of signature of all personnel involved in the work activity

3.5.4 Safety Method Statements

- The Contractor must submit Safety Method Statements to the KZN Department of Health's nominated Representative for approval prior to the task commencing.
- The Task Items listed in the Safety Method Statement must tie up with the task items being assessed in the Task Specific Risk Assessment document.
- The Safety Method Statement must detail in a step by step and methodical manner how the task is to be done from beginning to the end and must indicate what tools/equipment will be used at each stage and/or how the work area is to be accessed.

3.5.5 Hazardous Materials

- The Contractor must set out its policy for the use, transportation, handling and storage of fuel and hazardous materials taking into account the legislative requirements. The Contractor must ensure that all hazardous materials and waste products are disposed of in accordance with applicable laws and regulations and any procedures published by DOH or in the absence of any relevant law, regulation or procedures, in accordance with sound safe practice.

3.5.6 Incident Management

- The principal contractor must appoint a competent incident investigator in writing.
- Incident management plan must be developed and implemented by the principal contractor
- All incidents must be investigated and recorded
- Reportable incidents must be reported to the Department of Labour
- Incidents must be reported to DOH within 24 hours of occurrence
- An incident register must be kept on site.
- Incident investigation report inclusive of corrective measures must be submitted to DOH

3.5.7 Emergency Preparedness and Procedures

- The principal contractor must develop an emergency procedure
- The emergency procedure must have; but not limited to:
 - A detailed response procedure;
 - List of key personnel
 - Details of emergency services
 - Steps to be taken in the event of each and every specific type of emergency
- The emergency procedure must be communicated to all employees
- Emergency numbers must be known to all employees

3.5.8 First Aid Equipment

- The principal contractor must appoint first aider in writing
- The appointed first aider must be in possession of First Aid Level 2 certificate.
- The contractor must provide his own first aid box

3.5.9 Unsafe Acts and Conditions

- The Contractor must implement a system to recognise, correct, and report unsafe acts and conditions associated with all Site activities.

3.5.10 Occupational Health & Infection control

- The contract may expose employees to biological agents; contractors must ensure that an adequate risk assessment is prepared and identifies the biological agents and controls thereof.
- Appropriate PPE must be used at all times

3.5.11 Extreme weather conditions

- If weather conditions pose a threat to Health & Safety of employees, be it extreme heat, cold, lightening or any weather condition, the Principal must apply appropriate safety measures. For hot environments; cool portable water shall be provided.

3.5.12 Medical Certificates of Fitness

- Prior to commencement of works; the principal contractor must submit valid medical certificates of fitness for all employees
- DOH will only accept Medical certificates of fitness obtained from an authorised Occupational health Practitioner
- A procedure to cater for employees with limitations must be developed and implemented by the contractor.
- Employees without valid medical certificates will not be allowed on site.

3.5.13 Plant and Equipment

- The contractor must implement and comply with OH&S Act - Electrical Machinery Reg. 9, Driven Machinery Reg. 1 – 20, Electrical Machinery Regulations and Electrical Installation Regulations.
- The Contractor must supply, at his cost, all items of plant and equipment necessary to perform the work and must maintain all items in good order and condition.
- Should any plant or equipment become inoperable for a period considered to be harmful to the progress of the work, the Contractor, must remove the unserviceable plant or equipment and replace it with similar serviceable plant or equipment at no cost to KZN Department of Health.
- No item of plant or equipment delivered to site for this Contract is removed from the site prior to the completion of the Contract without the written approval of DOH.
- DOH reserves the right to inspect items of plant or equipment brought to site by the Contractor for use on this Contract. Should DOH Representative has the opinion that any item is inadequate, faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, He/She must advise the Contractor in writing and the Contractor must forthwith remove the item from the site and replace it with a safe and adequate substitute.

3.5.14 Personnel Protective Equipment/Clothing (PPE)

- The contractor must provide suitable and adequate PPE to all his/her employees
- PPE must be issued to all workers free of charge and a record of issuing must be kept
- Training must be provided to all employees to ensure they know how to use and maintain their PPE
- Training should include but not limited to: Cleaning of PPE, Hygiene, Correctly Putting PPE on, Inspection of PPE, Health Risks associated with the task,
- The contractor must comply with the requirements of General Safety Regulations

3.5.15 Working on Live Electrical Equipment / Sub-Station

- The Contractor may not allow any work on live electrical equipment!

3.5.16 Barricading requirements

- All openings and edges must be barricaded with solid barricading to withstand an impact of at least 100kg
- Only solid barricading covered with Orange Netting and or DOH approved equivalent barricading is allowed.
- Solid barriers to prevent persons falling into them must protect openings in floors, stairwells, staircases, open-sided buildings and any structure in the course of erection, where dangerous openings exist
- Contractors must pre-plan the delivery of floor grating, stair treads, landings and handrails to ensure safe access and protection for persons working on structures
- Barricading must be tagged, placed on register, maintained and inspected daily – The owner of the barricade's name and mobile number must appear on the tag
- All handrails and fencing must comply with DOH Standards.
- The contractor must comply with the requirements of General Safety Regulation 13 (I)

Note: Danger tape will not be accepted as barricading!

3.5.17 Working in Existing Operations

- Work must be carried out such that no interference is caused.
- Any work which requires section of the Plant to be taken out of operation with resultant interruption to production and/or other activities must be carried out in the absolute minimum of time and be on the basis of the Contractor working around the clock (within legal parameters) for the duration of such work. The times when work of this nature can be carried out must be arranged with DOH

3.5.18 Notification of Construction Work

- The principal contractor must notify the department of Labour in writing 7 days before commencement of construction works.

3.5.19 Vehicles and mobile plant

- The contractor must ensure that vehicles and mobile plants comply with the requirements of CR 23
- Vehicles and mobile plants must be inspected daily before use and records thereof must be kept
- Competent personnel must be appointed to use and manage such

3.5.20 Housekeeping and general safeguarding on site

- The contractor must comply with the requirements of Environmental Regulations for Workplaces (ERW) and CR 27
- The contractor must ensure continuous housekeeping on site
- Accumulated waste must be removed regularly
- The site must be kept neat and clean at all times

3.5.21 Stacking and storage on site

- The contractor must appoint in writing a competent stacking storage supervisor
- The contractor must comply with the requirements of GSR and CR 28

3.5.22 Fire precautions on site

- The contractor must minimise fire risks on site
- The contractor must comply with the requirements of ERW and CR 29

3.5.23 Employee Facilities on site

- The contractor must provide adequate facilities on site i.e. toilets; eating areas; changing areas and showers etc.
- The contractor must comply with the requirements of CR 30

4. Training and Competency

- Prior to the commencement of the work, the Contractor must provide current documentation to the satisfaction of DOH verifying that the Contractor's personnel are competent and have the appropriate qualifications, job skills and training as required by this Contract and applicable laws.
- The Contractor must ensure that all his employees and his Sub-Contractors' employees working on the site are adequately trained in the type of work to be performed, are trained in relevant procedures and have the appropriate qualifications, certificates and are under competent supervision. Records are to be maintained on site.
- The Principal Contractor and all contract employees are holders of current certificates or licenses, where the operation being performed requires such or applicable industry standard where legislation does not prescribe or have registered courses to meet the requirements.

4.1 Induction in Health and Safety

- The Contractor must ensure that no employee of the Contractor or its subcontractors, including transport and delivery Contractors entering the site delivering materials and/or equipment, must proceed to enter the Site or any operations area until they have received all training required under applicable laws and regulations, including, but not limited to, work activity inductions and the KZN Department of Health's Site-specific induction.
- The Contractor must also prepare and present to all its employees its own Contractor Induction, explaining the Contractor's Safety Management Plan, the Contractor's Rules, the obligations imposed by the Occupational Health and Safety Act and Regulations.
- The contractor must comply with: OH&S Act - Section 8

5. Smoking

- The Contractor must not permit smoking at the Site except within designated smoking areas.

6. Intoxicating Liquor or Drugs

- The contractor must implement and comply with OH&S Act – General Administrative Regulation 10
- Any person found on the site or attempting to enter site, in possession of or consuming intoxicating liquor or illegal drugs or considered unfit for work from the apparent influence of intoxicating liquor or illegal drugs or prescription drugs, is removed from the site.

7. Housekeeping

- The contractor must implement and comply with Construction Reg. 27
- The Contractor must maintain all work areas in a tidy state, free of debris and rubbish.
- The Contractor must dispose of all debris, rubbish, spoil and hazardous waste off site, outside KZN Department of Health's property in a designated and authorised area or facility. The Contractor should make itself aware of the KZN Department of Health's waste management plan and collection and disposal arrangements and align its waste management program accordingly.
- In cases where an inadequate standard of housekeeping has developed and compromised safety and cleanliness, DOH has the right to instruct the Contractor to cease work until the area has been tidied up and made safe.
- The Contractor must carry out regular safety/housekeeping inspections at least weekly to ensure maintenance of satisfactory standards. The Contractor must document the results of each inspection and must maintain records for viewing by DOH.

8. Fundamental health and safety requirements

Before any work commences, proof of and the following non-negotiable deliverables are required:

- Incident investigation training by Construction Manager and or Safety Officer
- Letter of good standing with the Workman's Compensation Commissioner
- Legal liability training of all Supervisors and Construction Managers
- Original of the notification of construction work stamped by the Department of Labour
- Public Liability Insurance
- Competency training certificates of people to execute the job
- Method statements for work to be conducted
- A Baseline Risk Assessment
- Risk Assessments for every Job/Task
- Signed legal appointments as required by legislation
- Contractors' Safety Officer CV and competency certificates
- Health and Safety Management Plan
- Health and Safety file
- All equipment to be on a current register, backed up by relevant test certificates
- A Medical fitness certificate for each employee with Annexure 3 completed per employee
- Proof of induction (Contractor induction training)

9. OMISSIONS FROM HEALTH SAFETY AND REQUIREMENTS SPECIFICATION

- By drawing up this OHS specification, DOH has endeavoured to address the most critical aspects relating to OHS issues in order to assist the contractor in adequately providing for the health and safety of employees on site. Should DOH not have addressed all SHE/Q aspects pertaining to the work that is tendered for, the contractor needs to include it in the SHE plan and inform DOH of such issues when submitting.

Contractor's Acceptance & Acknowledgement of the Health & Safety Specification:

I, _____ (print name in full), the undersigned responsible person (Contractors 16.1/16.2 Appointee) for:

_____ (Company Name)

declare that I have read, understood and accept the responsibilities and requirements of this Health & Safety Specification for the project: **Installation of Generators at KZN Health Institutions** will ensure that this Health & Safety Specification is communicated to the relevant parties so that the requirements hereto can be complied with.

Contractor's Responsible Person
(16.1/ 16.2 Appointee)

Date