



**DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA**

DUE AT 11:00 ON

22 DECEMBER 2017

BID NO. W11268

NGQAMAKAWE REGIONAL SUPPLY SCHEME PHASE 5

CIVIL/MECHANICAL/ELECTRICAL CONTRACT

BUTTERWORTH EMERGENCY SUPPLY SCHEME

VOLUME 1: TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

SUBMIT BID DOCUMENTS

TO

POSTAL ADDRESS:

**DIRECTOR-GENERAL: DEPARTMENT WATER
AND SANITATION**

**PRIVATE BAG X313
PRETORIA, 0001**

OR

TO BE DEPOSITED IN:

**THE BID BOX AT THE ENTRANCE
OF ZWAMADAKA BUILDING
157 FRANCIS BAARD STREET
PRETORIA, 0002**

ATTENTION:

**DIVISION: PROCUREMENT AND PSP ADMINISTRATION
ZWAMADAKA BUILDING
ZWAMADAKA ENTRANCE**

BIDDER: (Company address and stamp)

NGQAMAKAWE REGIONAL SUPPLY SCHEME PHASE 5**BID NO. W11268****BUTTERWORTH EMERGENCY SUPPLY SCHEME****LIST OF VOLUMES**

VOLUME 1, this Volume comprising

THE TENDER

PART T1:	TENDERING PROCEDURES
T1.1	Standard Bidding Documents
T1.2	Tender Notice
T1.3	Tender Data
PART T2:	RETURNABLE DOCUMENTS
T2.1	List of Returnable Documents
T2.2	Returnable Schedules

VOLUME 2:

THE CONTRACT

PART C1:	AGREEMENTS AND CONTRACT DATA
C1.1	Form of Offer and Acceptance
C1.2	Contract Data
C1.3	Form of Performance Security
C1.4	OHS Mandatary Form
C1.5	Certificate of Ownership of Goods
PART C2:	PRICING DATA
C2.1	Pricing Instructions: Civil Works and Building Works
C2.2	Pricing Instructions: Mechanical and Electrical Works – Pump Station
C2.3	Schedule of Imported Equipment
C2.4	Bill of Quantities

CONTENTS

VOLUME 3:

PART C3: SCOPE OF WORKS

C3.1 Project Specifications

C3.2 Amendments to Particular Specifications

C3.3 Particular Specifications

C3.4 Amendments to Standard Specifications

C3.5 Standard Specifications

VOLUME 4

PART C4: SITE INFORMATION

C4.1 Site Information

PART C5: APPENDICES

VOLUME 5

PART C6: DRAWINGS

NGQAMAKWE REGIONAL SUPPLY SCHEME PHASE 5

BID NO. W11268 BUTTERWORTH EMERGENCY SUPPLY SCHEME

VOLUME 1

PART T1.1 – STANDARD BIDDING DOCUMENTS

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE DEPARTMENT OF WATER AND SANITATION

BID NUMBER: W11268 CLOSING DATE: 22 DECEMBER 2017

CLOSING TIME: 11:00

DESCRIPTION: **BUTTERWORTH EMERGENCY SUPPLY SCHEME**

The successful bidder will be required to fill in and sign a written Contract Form (SBD 7).

BID DOCUMENTS MAY BE POSTED TO:

POSTAL ADDRESS: DIRECTOR-GENERAL: DEPARTMENT WATER AND SANITATION

PRIVATE BAG X 313

PRETORIA, 0001

OR

DEPOSITED IN THE BID BOX SITUATED AT:

THE TENDER BOX AT THE ENTRANCE

OF ZWAMADAKA BUILDING

157 FRANCIS BAARD STREET

PRETORIA, 0002

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

The bid box is generally open 24 hours a day, 7 days a week.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

**THE FOLLOWING PARTICULARS MUST BE FURNISHED
(FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)**

NAME OF BIDDER

POSTAL ADDRESS

STREET ADDRESS

TELEPHONE NUMBER CODE.....NUMBER.....

CELL PHONE NUMBER

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

FACSIMILE NUMBER CODENUMBER.....

E-MAIL ADDRESS

VAT REGISTRATION NUMBER.....

HAS AN ORIGINAL AND VALID TAX CLEARANCE CERTIFICATE BEEN SUBMITTED? (SBD 2).....YES or NO

HAS A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE BEEN SUBMITTED? (SBD 6.1)YES or NO

IF YES, WHO WAS THE CERTIFICATE ISSUED BY?AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA).....☐A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS); OR.....☐A REGISTERED AUDITOR☐

[TICK APPLICABLE BOX]

(A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE)

ARE YOU THE ACCREDITED REPRESENTATIVE

IN SOUTH AFRICA FOR THE GOODS / SERVICES / WORKS OFFERED?

YES or NO

IF YES ENCLOSE PROOF]

SIGNATURE OF BIDDER

DATE

CAPACITY UNDER WHICH THIS BID IS SIGNED

TOTAL BID PRICE.....

TOTAL NUMBER OF ITEMS OFFERED

ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE MAY BE DIRECTED TO:**Department:****Contact Person:** TP MABASA**Tel:** 012 336 7518**Fax:** 012 336 7518**E-mail address:** mabasap@dws.gov.za

ANY ENQUIRIES REGARDING TECHNICAL INFORMATION MAY BE DIRECTED TO:

Contact Person: T MHLOM \ P MUNEKA

Tel: 012 336 8030 \ 012 336 7629

Mobile: 083 294 2318

Fax: 012 336 8030 \ 012 336 7629

E-mail address: mhlomta@dws.gov.za \ munekap@dws.gov.za

SBD 2: Tax Clearance Certificate Requirements

SBD 2

TAX CLEARANCE CERTIFICATE REQUIREMENTS

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.

- 1 In order to meet this requirement bidders are required to complete in full the attached form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 2 SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3 The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
- 4 In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
- 5 Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
- 6 Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.

Jeyret:\Mdk416-SBD2 tax clearance



TAX CLEARANCE

TCC 001

Application for a Tax Clearance Certificate

Purpose

Select the applicable optionTenders ☐ Good standing ☐

If "Good standing", please state the purpose of this application

Particulars of applicant

Name/Legal name (Initials & Surname or registered name)											
Trading name (if applicable)											
ID/Passport no						Company/Close Corp. registered no					
Income Tax ref no						PAYE ref no	7				
VAT registration no	4					SDL ref no	L				
Customs code						UIF ref no	U				
Telephone no	CODE		NUMBER			Fax no	CODE		NUMBER		
E-mail address											
Physical address											
Postal address											

Particulars of representative (Public Officer/Trustee/Partner)

Surname											
First names											
ID/Passport no						Income Tax ref no					
Telephone no	CODE		NUMBER			Fax no	CODE		NUMBER		
E-mail address											
Physical address											

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Particulars of tender (If applicable)

Tender number

Estimated Tender amount R ,

Expected duration of the tender year(s)

Particulars of the 3 largest contracts previously awarded

Date started	Date finalised	Principal	Contact person	Telephone number	Amount
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Audit

Are you currently aware of any Audit investigation against you/the company?..... YES NO

If "YES" provide details

Appointment of representative/agent (Power of Attorney)

I the undersigned confirm that I require a Tax Clearance Certificate in respect of or .

I hereby authorise and instruct to apply to and receive from SARS the applicable Tax Clearance Certificate on my/our behalf.

Signature of representative/agent

Date

Name of representative/agent

Declaration

I declare that the information furnished in this application as well as any supporting documents is true and correct in every respect.

Signature of applicant/Public Officer

Date

Name of applicant/Public Officer

Notes:

- It is a serious offence to make a false declaration.
- Section 75 of the Income Tax Act, 1962, states: Any person who
 - fails or neglects to furnish, file or submit any return or document as and when required by or under this Act; or
 - without just cause shown by him, refuses or neglects to-
 - furnish, produce or make available any information, documents or things;
 - reply to or answer truly and fully, any questions put to him ...

As and when required in terms of this Act ... shall be guilty of an offence ...
- SARS will, under no circumstances, issue a Tax Clearance Certificate unless this form is completed in full.**
- Your Tax Clearance Certificate will only be issued on presentation of your South African Identity Document or Passport (Foreigners only) as applicable.

SBD 3.2: Pricing Schedule - Non-Firm Prices

NOTE: PRICE ADJUSTMENTS WILL BE ALLOWED AT THE PERIODS AND TIMES SPECIFIED IN THE BIDDING DOCUMENTS.

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

CLOSING TIME 11:00 ON: 22 DECEMBER 2017

BID NUMBER: W11268

NAME OF BIDDER:.....

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

ITEM	QUANTITY	DESCRIPTION	BID PRICE IN RSA CURRENCY
1 TO 3	As per bills of quantities	Butterworth Emergency Supply Scheme	R
		VAT	R
		TOTAL	R

NOTE: ALL FIELDS OF THIS FORM SHOULD BE COMPLETED IN FULL. IF A FIELD IS NOT APPLICABLE, THE FIELD "SHOULD BE INDICATED AS "NOT APPLICABLE". THE DEPARTMENT OF WATER AND SANITATION WILL NOT ENTERTAIN ANY CLAIMS FOR NON-FIRM PRICE INCREASES CLAIM AT A LATER DATE, UNLESS SUCH NON-FIRM PRICE ADJUSTMENTS ARE CLEARLY MOTIVATED ON THIS FORM.

Required by:

At:

Brand and model

Country of origin

Delivery basis. See note hereunder.

Period required for delivery after receipt of order

Delivery period: (tick applicable block)

Does the item offered comply with any recognise Standards body, e.g. SABS? (tick applicable block)

Yes	No
-----	----

If so furnish valid certificate to this end (tick applicable block)

Yes	No
-----	----

Is offer strictly to specification? (tick applicable block)

Yes	No
-----	----

If not to specification, state deviation(s)

.....

NOTE: All delivery and/or railage costs must be included in the price.

Any enquiries regarding bidding procedures may be directed to the -

Department of Water and Sanitation

Supply Chain Management Office

Private Bag X313, Pretoria, 0001

Tel: (012) 336-7695/7418/8988

OR

For technical information -

Mr T Mhlom

Department of Water and Sanitation

Tel: (012) 336 8030

Cell: 083 294 2318

SBD 3.2

PRICE ADJUSTMENTS

A NON-FIRM PRICES SUBJECT TO ESCALATION

1. IN CASES OF PERIOD CONTRACTS, NON FIRM PRICES WILL BE ADJUSTED (LOADED) WITH THE ASSESSED CONTRACT PRICE ADJUSTMENTS IMPLICIT IN NON FIRM PRICES WHEN CALCULATING THE COMPARATIVE PRICES
2. IN THIS CATEGORY PRICE ESCALATIONS WILL ONLY BE CONSIDERED IN TERMS OF THE FOLLOWING FORMULA:

$$Pa = (1 - V)Pt \left(D1 \frac{R1t}{R1o} + D2 \frac{R2t}{R2o} + D3 \frac{R3t}{R3o} + D4 \frac{R4t}{R4o} \right) + VPt$$

Where:

Pa = The new escalated price to be calculated.

(1-V)Pt = 85% of the original bid price.

Note that Pt must always be the original bid price and not an escalated price.

D1, D2.. = Each factor of the bid price e.g. labour, transport, clothing, footwear, etc. The total of the various factors D1, D2...etc. must add up to 100%.

R1t, R2t = Index figure obtained from new index (depends on the number of factors used).

R1o, R2o = Index figure at time of bidding.

VPt = 15% of the original bid price. This portion of the bid price remains firm i.e. it is not subject to any price escalations.

The Tenderer shall complete the tables in accordance with the requirements specified in Sub-Clause 13.8 of the Conditions of Contract. All indices and factors that are provided or specified in Sub-Clause 13.8 and Schedule C shall be clearly indicated and cross-referenced in the tables provided hereunder

3. The following index/indices must be used to calculate your bid price:

Index..... Dated..... Index..... Dated..... Index..... Dated.....

Index..... Dated..... Index..... Dated..... Index..... Dated.....

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

4. FURNISH A BREAKDOWN OF YOUR PRICE IN TERMS OF ABOVE-MENTIONED FORMULA. THE TOTAL OF THE VARIOUS FACTORS MUST ADD UP TO 100%.

FACTOR (D1, D2 etc. e.g. Labour, transport etc.)	PERCENTAGE OF BID PRICE

B PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

1. Please furnish full particulars of your financial institution, state the currencies used in the conversion of the prices of the items to South African currency, which portion of the price is subject to rate of exchange variations and the amounts remitted abroad.

PARTICULARS OF FINANCIAL INSTITUTION	ITEM NO	PRICE	CURRENCY	RATE	PORTION OF PRICE SUBJECT TO ROE	AMOUNT IN FOREIGN CURRENCY REMITTED ABROAD
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		

2. Adjustments for rate of exchange variations during the contract period will be calculated by using the average monthly exchange rates as issued by your commercial bank for the periods indicated hereunder: (Proof from bank required)

AVERAGE MONTHLY EXCHANGE RATES FOR THE PERIOD:	DATE DOCUMENTATION MUST BE SUBMITTED TO THIS OFFICE	DATE FROM WHICH NEW CALCULATED PRICES WILL BECOME EFFECTIVE	DATE UNTIL WHICH NEW CALCULATED PRICE WILL BE EFFECTIVE

SBD 4: Declaration of Interest

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- the bidder is employed by the state; and/or
- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

2.1 Full Name of bidder or his or her representative:

2.2 Identity Number:.....

2.3 Position occupied in the Company (director, trustee, shareholder², member):
.....

2.4 Registration number of company, enterprise, close corporation, partnership agreement or trust:
.....

2.5 Tax Reference Number:

2.6 VAT Registration Number:

- 2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.

¹"State" means –

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

- 2.7 Are you or any person connected with the bidder
presently employed by the state? **YES / NO**

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

2.7.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:

Name of state institution at which you or the person
connected to the bidder is employed:

Position occupied in the state institution:

Any other particulars:

.....

.....

.....

2.7.2 If you are presently employed by the state, did you obtain
the appropriate authority to undertake remunerative
work outside employment in the public sector?**YES / NO**2.7.2.1 If yes, did you attach proof of such authority to the bid
document?**YES / NO**(Note: Failure to submit proof of such authority, where
applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:

.....

.....

.....

2.8 Did you or your spouse, or any of the company's directors /
trustees / shareholders / members or their spouses conduct
business with the state in the previous twelve months?**YES / NO**

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

2.8.1 If so, furnish particulars:

.....

2.9 Do you, or any person connected with the bidder, have
 any relationship (family, friend, other) with a person
 employed by the state and who may be involved with
 the evaluation and or adjudication of this bid?

YES / NO

2.9.1 If so, furnish particulars.

.....

2.10 Are you, or any person connected with the bidder,
 aware of any relationship (family, friend, other) between
 any other bidder and any person employed by the state
 who may be involved with the evaluation and or adjudication
 of this bid?

YES/NO

2.10.1 If so, furnish particulars.

.....

2.11 Do you or any of the directors / trustees / shareholders / members
 of the company have any interest in any other related companies
 whether or not they are bidding for this contract?

YES/NO

2.11.1 If so, furnish particulars:

.....

3 Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number

4 DECLARATION

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....

Signature

.....

Date

.....

Position

.....

Name of bidder

November 2011

This document must be signed and submitted together with your bid

THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME

INTRODUCTION

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on the 1 September 1996. The NIP policy and guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases / lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (DTI) is charged with the responsibility of administering the programme.

1 PILLARS OF THE PROGRAMME

- 1.1 The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US\$ 10 million or other currency equivalent to US\$ 10 million will have a NIP obligation. This threshold of US\$ 10 million can be reached as follows:
- (a) Any single contract with imported content exceeding US\$10 million.
or
 - (b) Multiple contracts for the same goods, works or services each with imported content exceeding US\$3 million awarded to one seller over a 2 year period which in total exceeds US\$10 million.
or
 - (c) A contract with a renewable option clause, where should the option be exercised the total value of the imported content will exceed US\$10million.
or
 - (d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US\$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US\$10 million.
- 1.2 The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30 % of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a *pro-rata* basis.
- 1.3 To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers.
- 1.4 A period of seven years has been identified as the time frame within which to discharge the obligation.

2 REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

- 2.1 In order to ensure effective implementation of the programme, successful bidders (contractors) are required to, immediately after the award of a contract that is in excess of **R10 million** (ten million Rands), submit details of such a contract to the DTI for reporting purposes.
- 2.2 The purpose for reporting details of contracts in excess of the amount of R10 million (ten million Rands) is to cater for multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in paragraphs 1.1.(b) to 1.1. (d) above.

3 BID SUBMISSION AND CONTRACT REPORTING REQUIREMENTS OF BIDDERS AND SUCCESSFUL BIDDERS (CONTRACTORS)

- 3.1 Bidders are required to sign and submit this Standard Bidding Document (SBD 5) together with the bid on the closing date and time.
- 3.2 In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1(d) above and to enable the DTI in determining the NIP obligation, successful bidders (contractors) are required, immediately after being officially notified about any successful bid with a value in excess of R10 million (ten million Rands), to contact and furnish the DTI with the following information:
- Bid / contract number.
 - Description of the goods, works or services.
 - Date on which the contract was accepted.
 - Name, address and contact details of the government institution.
 - Value of the contract.
 - Imported content of the contract, if possible.
- 3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr. Elias Malapane within five (5) working days after award of the contract. Mr. Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedti.gov.za for further details about the programme.

4 PROCESS TO SATISFY THE NIP OBLIGATION

- 4.1 Once the successful bidder (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:
- a. the contractor and the DTI will determine the NIP obligation;
 - b. the contractor and the DTI will sign the NIP obligation agreement;
 - c. the contractor will submit a performance guarantee to the DTI;
 - d. the contractor will submit a business concept for consideration and approval by the DTI;
 - e. upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;
 - f. the contractor will implement the business plans; and
 - g. the contractor will submit bi-annual progress reports on approved plans to the DTI.

4.2 The NIP obligation agreement is between the DTI and the successful bidder (contractor) and, therefore, does not involve the purchasing institution.

Bid number Closing date:.....

Name of bidder.....

Postal address

Signature..... Name (in print).....

Date.....

SBD 6.1**PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017**

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The value of this bid is estimated to exceed R50 000 000 (all applicable taxes included) and therefore the 90/10 preference point system shall be applicable.

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTOR	10
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

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

DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

2. POINTS AWARDED FOR PRICE

2.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

80/20	or	90/10
$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$	or	$P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$

Where

- P_s = Points scored for price of bid under consideration
- P_t = Price of bid under consideration
- P_{\min} = Price of lowest acceptable bid

3. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 3.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

4. BID DECLARATION

- 4.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

5. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 5.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)
(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

6. SUB-CONTRACTING

- 6.1 Will any portion of the contract be sub-contracted?

(*Tick applicable box*)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

- 6.1.1 If yes, indicate:

- What percentage of the contract will be subcontracted%
- The name of the sub-contractor
- The B-BBEE status level of the sub-contractor
- Whether the sub-contractor is an EME or QSE

(*Tick applicable box*)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

- v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

7. DECLARATION WITH REGARD TO COMPANY/FIRM

7.1 Name of company/firm:

7.2 VAT registration number:

7.3 Company registration number:

7.4 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
☐ One person business/sole propriety
☐ Close corporation
☐ Company
☐ (Pty) Limited

[TICK APPLICABLE BOX]

7.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

.....

.....

7.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
☐ Supplier
☐ Professional service provider
☐ Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

7.7 Total number of years the company/firm has been in business:.....

7.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....
SIGNATURE(S) OF BIDDERS(S)

DATE:

ADDRESS

.....

SBD 6.2**DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS**

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.

- 1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
_____	_____ %
_____	_____ %
_____	_____ %

3. Does any portion of the goods or services offered have any imported content?

(Tick applicable box)

YES		NO	
-----	--	----	--

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Institution):

.....

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <http://www.thdti.gov.za/industrialdevelopment/ip.jsp>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder entity),
the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

SIGNATURE: _____	DATE: _____
WITNESS No. 1 _____	DATE: _____
WITNESS No. 2 _____	DATE: _____

SATS 1286.2011

Annex C

Local Content Declaration - Summary Schedule

(C1) Tender No. _____

(C2) Tender description: _____

(C3) Designated product(s) _____

(C4) Tender Authority: _____

(C5) Tendering Entity name: _____

(C6) Tender Exchange Rate: Pula _____ EU _____ GBP _____

(C7) Specified local content % _____

Note: VAT to be excluded from all calculations

Calculation of local content							
Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)

Tender summary			
Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)

Signature of tenderer from Annex B

Date: _____

(C20) Total tender value _____

(C21) Total Exempt imported content _____

(C22) Total Tender value net of exempt imported content _____

(C23) Total Imported content _____

(C24) Total local content _____

(C25) Average local content % of tender _____

SATs 1286, 2011

Imported Content Declaration - Supporting Schedule to Annex C

Note: VAT to be excluded from all calculations.

EU	R 9.00	GBP	R 12.00
----	--------	-----	---------

Calculation of imported content

(D19) Total exempt imported value

This total must correspond with
Annex C - C 21

Calculation of imported content

(D32) Total imported value by tenderer

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)
										(D45) Total imported value by 3rd party	

D. Other foreign currency payments

			Calculation of foreign currency payments		Summary of payments
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	
(D46)	(D47)	(D48)	(D49)	(D50)	(D51)
					(D52) Total of foreign currency payments declared by tenderer and/or 3rd party

Signature of tenderer from Annex B

Date:

(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above

This total must correspond with Annex C - C.23

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	
(E2)	Tender description:	
(E3)	Designated products:	
(E4)	Tender Authority:	
(E5)	Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
(E9) Total local products (Goods, Services and Works)			

(E10)	Manpower costs	(Tenderer's manpower cost)	
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)	
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)	

(E13) Total local content

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: _____

LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO. W11268

ISSUED BY: (Procurement Authority / Name of Institution):

NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <http://www.thdti.gov.za/industrialdevelopment/ip.jsp>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),

do hereby declare, in my capacity as

of(name of bidder entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that:

- (ii) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (iii) the declaration templates have been audited and certified to be correct.

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

(d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

DATE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

SBD 8: Declaration of Bidder's Past Supply Chain Management Practices

SBD 8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury’s Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury’s website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <p><input type="checkbox"/></p>	<p>No</p> <p><input type="checkbox"/></p>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury’s website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <p><input type="checkbox"/></p>	<p>No</p> <p><input type="checkbox"/></p>
4.2.1	If so, furnish particulars:		

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

**I, THE UNDERSIGNED (FULL NAME).....
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE
AND CORRECT.**

**I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE
TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.**

.....

Signature

.....

Date

.....

Position

.....

Name of Bidder

Js365bW

SBD 9: Certificate of Independent Bid Determination**SBD 9****CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word “competitor” shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

-
- (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- ³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

Js914w 2

PART T1.2: TENDER NOTICE

TENDER NOTICE**TENDERERS ARE HEREBY INVITED TO TENDER
ON THE FOLLOWING PROJECT FOR THE
DEPARTMENT OF WATER AND SANITATION****NGQAMAKWE REGIONAL SUPPLY SCHEME PHASE 5****BID NO. W11268 – BUTTERWORTH EMERGENCY SUPPLY SCHEME**

The Department of Water and Sanitation (DWS) invites Tenders from Tenderers who are on the DWS roster system with a CIDB grading of 9CE for the Ngqamakwe Regional Supply Scheme Phase 5, Butterworth Emergency Supply Scheme.

The project briefly comprises:

- The construction of a 5.0 Ml concrete reservoir;
- The construction of a pump station;
- Design and installation of pump station mechanical and electrical works;
- Installation of 14,0 km of 700 mm dia steel pipe;
- The construction of a 7,0 km double circuit 66kV line;
- The construction of a 66/11kV 2 x 10MVA TRF substation;
- Appurtenant works comprising, inter alia, access roads, temporary road deviations, etc.;

The physical address for collection of Tender documents is:

DEPARTMENT OF WATER AND SANITATION (DWS)

191 Francis Baard Street
Waterbron Building, Room R2
PRETORIA
0001

Documents will be available after 09h00 on 27 November 2017 and thereafter on Mondays to Fridays between 09:00 hrs and 15:00 hrs.

No Tender deposit is payable.

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Queries relating to the issue of these documents may be addressed to:

The Receiving Officer
 DEPARTMENT OF WATER AND SANITATION (DWS)
 191 Francis Baard Street
 Waterbron Building, Room R2
 PRETORIA
 0001
 Fax: +27 (12) 336 7518

A compulsory clarification meeting with representatives of the Employer will take place as follows:

Date: 7 December 2017
 Time: 10:00 hrs
 Venue: Emanzini Building, Boardroom G18

The closing time for receipt of Tenders is 11:00hrs on 22 December 2017

DEPARTMENT OF WATER AND SANITATION (DWS)
 Tender Box at 157 Francis Baard Street
 Zwamadaka Building
 PRETORIA
 0002

Telegraphic, telephonic, telex, facsimile, electronic and/or late Tenders will not be accepted.

Requirements for sealing, addressing, delivery, opening and assessment of Tenders are stated in the Tender Data.

PART T1.3: TENDER DATA

NGQAMAKWE REGIONAL SUPPLY SCHEME PHASE 5

BID NO. W11268: BUTTERWORTH EMERGENCY SUPPLY SCHEME

CONTENTS

	PAGE
CONDITIONS OF TENDER	43
TENDER DATA.....	43

CONDITIONS OF TENDER

The Conditions of Tender applicable to this contract are the Standard Conditions of Tender as contained in the latest edition of SANS 10845-3.

The Standard Conditions of Tender makes several references to the Tender Data for details that apply specifically to this Tender. The Tender Data shall have preference in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item below is cross-referenced to the relevant clause in the Standard Conditions of Tender to which it applies

Clause Number	Tender Data
3.1	<p>The Employer is: The Department of Water and Sanitation (DWS) The Employer's domicilium citandi et executandi (permanent physical business address) is:</p> <p>Department of Water and Sanitation (DWS) 191 Francis Baard Street Waterbron Building, Room R2 PRETORIA 0001</p> <p>The Employer's address for communication relating to this project is: Department of Water and Sanitation (DWS) 191 Francis Baard Street Waterbron Building, Room R2 PRETORIA 0001 Tel: +27 (12) 336 8030</p>
3.2	<p>The tender documents issued by the Employer comprise:</p> <p>Volume 1 TENDERING PROCEDURES AND RETURNABLE DOCUMENTS Volume 2 AGREEMENTS, CONTRACT DATA AND BILLS OF QUANTITIES Volume 3 SCOPE OF WORKS Volume 4 SITE INFORMATION Volume 5 DRAWINGS</p>

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Clause Number	Tender Data
3.4	<p>Delete the first sentence of Sub-Clause 3.4 and replace with the following:</p> <p>“Each communication between the Employer and a Tenderer shall be directed through the Employer’s Receiving Officer as detailed below, and in a form that can be readily read, copied and recorded. Communications shall be in English. The Employer will not take any responsibility for non-receipt of communications from or to a Tenderer.”</p> <p>The Receiving Officer</p> <p>DEPARTMENT OF WATER AND SANITATION (DWS)</p> <p>191 Francis Baard Street Waterbron Building, Room R2 PRETORIA 0001</p> <p>Fax: +27 (12) 336 8030</p>
3.4	<p>The Employer’s Agent is:</p> <p>Name: Aurecon South Africa (Pty) Ltd</p> <p>Address: 1 Pearce Street Berea EAST LONDON 5241</p> <p>Contact person: Leigh Bahlmann</p> <p>Tel: 043 721 0900</p> <p>Email: Leigh.Bahlmann@aurecongroup.com</p>
3.4	<p>The language for communications is: English</p>
4.1.1	<p>Delete the text of Sub-clause 4.1.1 and replace with:</p> <p>“Only Tenderers who are on the DWS roster system and invited to tender are eligible to submit Tender offers.”</p>
4.6	<p>Failure to apply instructions contained in addenda may render a Tenderer’s offer non-responsive.</p>
4.7	<p>The arrangements for a compulsory clarification meeting are as specified in the Tender Notice and Invitation to Tender.</p> <p>Confirmation of attendance must be notified at least one full working day in advance to the address specified in the tender notice.</p> <p>The onus rests with the Tenderer to ensure that the person attending the clarification meeting on his behalf is appropriately qualified to understand all directives and clarifications given at that meeting.</p> <p>Tenderers shall sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.</p>

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Clause Number	Tender Data
	<p>The Tenderer shall bear all costs associated with his visit or visits to the site and his attendance at the compulsory clarification meeting.</p> <p>The Tenderer and any of his personnel or agents who enter upon the Site or the Employer's premises for the purpose of site visits will complete an indemnity form. Indemnity shall be given to the Employer prior to the start of any site visit.</p>
4.8	<p>After "employer" insert "in writing to the correspondence stated in the tender notice,"</p> <p>Replace "five working days" with "seven (7) working days"</p>
4.9	<p>No Insurance cover will be provided by the Employer.</p>
4.10	<p>Tenderers are required to state the rates and currencies in Rand.</p>
4.12	<p>If a tenderer wishes to submit an alternative tender offer, the Tenderer shall in addition to the conforming Tender submit a separate complete set of Tender Documents clearly marked as an "Alternative Tender" in order to distinguish it from the unqualified Tender. The only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.</p> <p>Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate if the efficacy of the alternative complies with the Employer's standards and requirements and its principal elements, to take a view on the degree to which the alternative and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the Contract for the Tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.</p> <p>The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.</p>
4.13.2	<p>Parts of each tender offer communicated on paper shall be submitted as an signed original, plus ONE copy.</p>
4.13.4	<p>The Tenderer is required to submit the following with his tender</p> <ol style="list-style-type: none"> (1) an original valid Tax Clearance Certificate issued by the South African Revenue Services; and (2) Proof of Contractor Registration drawn from the Construction Industry Development Board website should be attached to the Returnable Schedules A; (3) evidence of registration and proof of good standing with a compensation insurer who is approved by the Department of Labour in terms of Section 80 of the Compensation for Occupational Injuries and Diseases Act (Act No 130 of 1993)(COID). The Tenderer is required to disclose all inspections, investigations

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Clause Number	Tender Data
	<p>and their outcomes conducted by the Department of Labour into the conduct of the Tenderer at a time during the 36 months preceding the date of this Tender ;</p> <p>(4) Proof of Registration in respect of each partner, where a tenderer satisfied the CIDB contractor grading designation requirements through the formation of a joint venture;</p> <p>(5) Submit their Broad-Based Black Economic Empowerment status level certificate or certified copy thereof issued by a registered verification agency in accordance with the Preferential Procurement Policy Framework Act, 2000; Preferential Procurement Regulations, 2017. Joint ventures/consortiums will qualify for preference points, provided that the entity submits the relevant certificate/score card in terms of Preferential Procurement Regulations, 2017. Note that in the case of unincorporated entities, a verified score card must be submitted with the Tender.</p> <p>(6) Company / CC / Trust / Partnership registration certificates; NB: Company, CC and Partnership must include names and copy of Identity documents of natural persons. Trust Deed must include name and copy of Identity document of founder/s and beneficiaries.</p> <p>(7) Joint Venture Agreement and Power of Attorney in case of Joint Ventures</p> <p>(8) All returnable schedules of Part T2: Returnable Schedules</p> <p>(9) Functionality Criterial file.</p> <p>(10) Submission of priced Bills of Quantities in electronic and printout format As a minimum, the Tenderer shall submit his completed Bills of Quantities electronically in Microsoft Excel format: In addition to the electronic version, the Tenderer shall submit his completed Bills of Quantities in one of the following hard copy formats:</p> <ol style="list-style-type: none"> a) Tendered rates and amounts hand written directly into the issued and formally bound tender document (Volume 2); or b) A printout from the software used by the tenderer to compile his priced bills of quantities. The printout shall comply with the following minimum requirements: <ol style="list-style-type: none"> i. Ring-bound into books in the same order and sequence as the issued tender documents; ii. The measurement and payment items and descriptions shall be the same and in the order and sequence as contained in the issued tender documents; iii. All rates and amounts shall be rounded to two decimal places; iv. Be clearly legible (font = Arial, font size = 11); v. Pages shall be numbered sequentially; vi. The printout shall resemble the original issued bills of quantities as closely as possible;

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Clause Number	Tender Data
	<p>vii. Each page must be signed by the person authorized to sign the tender on behalf of the tenderer;</p> <p>viii. The required number of copies must be provided.</p> <p>The Tenderer shall not insert or delete any measurement and payment items into the electronic bills of quantities issued.</p> <p>The hierarchy of the bills of quantities shall be:</p> <p>Priority 1: The issued and formally printed and bound tender document;</p> <p>Priority 2: Signed printout;</p> <p>Priority 3: Electronic version(s)</p> <p>In the event of there being any discrepancy between the Bills of Quantities submitted by the Tenderer and or the issued tender documents, the information contained in the document with the highest priority shall prevail.</p> <p>Failure to comply and or adhere to the above requirements will result in the tender being considered non-responsive."</p>
4.13.6	<p>Place and seal the printed and completed tender document in an envelope clearly marked "TENDER" and bearing the Employer's name, the contract number and description, the tenderer's authorised representative's name, the tenderer's postal address and contact telephone numbers.</p> <p>Telephonic, facsimile or emailed tender offers will not be accepted.</p>
4.13 4.15	<p>The Employer's address for the delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Physical address: THE TENDER BOX AT THE ENTRANCE OF ZWAMADAKA BUILDING 157 FRANCIS BAARD STREET PRETORIA, 0002</p> <p>Identification details: Place the signed original tender offer in a package marked TENDER: W11268: Butterworth Emergency Supply</p> <p>Tenders must be submitted during office hours (08:00 to 16:00 hrs) Monday to Friday at the Employer's address.</p> <p>It is in the tenderer's interest to ensure that the delivery of the tender offer is recorded in the Employer's tenders received register.</p>
4.15	<p>The closing time for submission of tender offers is 11:00 hrs on 22 December 2017.</p>
4.16.1	<p>The tender offer validity period is 90 days.</p>
4.16.2	<p>Where a tenderer, at any time after the opening of his tender offer but prior to entering into a contract based on his tender offer:</p> <p>(a) withdraws his tender;</p> <p>(b) gives notice of his inability to execute the contract in terms of his tender; or</p> <p>(c) fails to comply with a request made in terms of Sub-clauses 4.17, 4.18 or 5.9,</p>

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Clause Number	Tender Data
	such tenderer shall be barred from tendering on any of the Employer's future tenders for a period to be determined by the Employer, but not less than six (6) months, from the date of tender closure. The Employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption.
4.18	Any additional information requested under this clause must be provided within 5 working days of the date of request.
4.19	Delete the text of Sub-clause 4.19 and replace with: "Tenderers are at liberty to visit the site at other times during the tender period subject to making prior arrangements with the Employer"
5.1	The Employer shall respond to clarifications received up to 7 working days before the tender closing time.
5.2	The Employer shall issue addenda until 5 working days before the tender closing time.
5.4	The time and location for the opening of tender offers are: Time: 11:00 hrs on 22 December 2017 Location: Department of Water and Sanitation ZWAMADAKA BUILDING 157 FRANCIS BAARD STREET PRETORIA 0002
5.5	The two-envelope system will not be followed for this Tender.
5.7	In the event of disqualification, the Employer may, at his sole discretion, impose a specified period during which tender offers will not be accepted from the offending tenderer and report same to the CIDB and National Treasury.
5.9	Arithmetical errors, omissions, discrepancies and imbalanced unit rates Delete the text of Sub-clause 5.9 and replace with: Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount appearing in the summary to the Pricing Schedule shall govern. Check responsive tender offers for: (a) the gross misplacement of the decimal point in any unit rate; (b) omissions made in completing the pricing schedule or bills of quantities; or (c) arithmetic errors in: (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or (ii) the summation of the prices.

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Clause Number	Tender Data
	<p>(d) imbalanced unit rates.</p> <p>Notify shortlisted tenderers of all errors, omissions or imbalanced rates that are identified in their tender offers.</p> <p>Where the tenderer elects to confirm the errors, omissions or re-balancing of imbalanced rates the tender offer shall be corrected as follows:</p> <p>(a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the unit rate shall govern and the line item total shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted and the unit rate shall be corrected.</p> <p>(b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be corrected.</p> <p>(c) Where the unit rates are imbalanced adjust such rates by increasing or decreasing them and selected others while retaining the total of the prices derived after any other corrections made under (a) and (b) above.</p> <p>Where there is an omission of a line item, no correction is possible and the offer may be declared non-responsive.</p> <p>Declare as non-responsive and reject any offer from a tenderer who elects not to accept the corrections proposed and subject the tenderer to the sanction under 4.16.2.</p> <p>The tenderer is required to submit balanced unit rates for rate only items in the pricing schedule. The rates submitted for these items will be taken into account in the evaluation of tenders.</p>
5.11.1	<p>The evaluation of the tender offers will be done according to the Department of Water Affairs and Sanitation evaluation criteria.</p>
5.13	<p>In addition to the requirements of the Condition of Tender, offers will only be accepted if:</p> <ul style="list-style-type: none"> • The Tenderer is registered with the Construction Industry Development Board with an appropriate contractor grading designation; • The Tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; • The Tenderer has not abused the Employer's supply chain management system; • The Tenderer has not failed to perform on any previous contract and has not been given a written notice to this effect; • The Tenderer is registered on the National Treasury Central Supplier Database; • The Tenderer has attended the compulsory briefing session and site inspection and signed the briefing and site inspection attendance register; • The Tenderer has provided a Letter of Intent for Performance Security, in terms of the Contract requirements issued by a Bank and/or Financial Institution;

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Clause Number	Tender Data
	<ul style="list-style-type: none"> The Tenderer has submit and / or complete all of the returnable documents and/or returnable schedules. If a Tenderer failed to submit any of the returnable documents and/or the returnable schedules duly completed, the Employer will call upon such Tenderer to complete, update and / or correct and submit all the returnable documents and/or returnable schedules in issue. If a Tenderer should fail to submit any of the returnable documents and/or the returnable schedules duly completed, updated and/or corrected in their entirety within 5 working days of being called upon to do so, then the Employer shall disqualify the Tenderer
5.17	The number of paper copies of the signed contract to be provided by the Employer is 1 .
5.19	All requests shall be in writing.
ADDITIONAL CONDITIONS OF TENDER CLAUSES:	
3.7	<p>Jurisdiction</p> <p>Unless stated otherwise in the tender data, each tenderer and the Employer undertake to accept the jurisdiction of the law courts of the Republic of South Africa.</p>

W11268

BUTTERWORTH EMERGENCY SUPPLY SCHEME

EVALUATION CRITERIA

1. EVALUATION CRITERIA

Bids will be evaluated in accordance with the new Preferential Procurement Regulations, 2017 using 90/10 preference points system as prescribed in the Preferential Procurement Policy Framework Act (PPPFA, Act5 of 2000). The lowest accepted bid will score 90 points for price and maximum of 10 points will be awarded for attaining the Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution.

The bid proposal received will be evaluated in three (3) phases.

- 1.1. During phase 1, bids will be evaluated based on Administration Compliance.
- 1.2. In phase 2 bids will be evaluated based on Technical Functionality Compliance.
- 1.3. In phase 3 bids will be evaluated based on Price and preference in accordance with the 90/10 preference points system as stipulated above.

The following criteria would be applicable to evaluate qualifying proposals:

PHASE 1: ADMINISTRATION

The following documents are required with your response (**FAILURE TO SUBMIT THEM WITH YOUR BID WILL RENDER YOUR BID NON-RESPONSIVE AND DISQUALIFIED. THIS EXCLUDES SUBMISSION OR NON-SUBMISSION OF A B-BBEE CERTIFICATE**):

No	Returnable Document	Yes	No
1	An original and valid tax clearance certificate (in case of a Joint Venture all parties shall include a certified copy of the original and valid tax clearance certificate)		
2	Pricing and completion of all items of the bill of quantities.		
3	Completion and inclusion of all the technical schedules		
4	Completion and inclusion of standard bidding documents. (SBD 1, SBD 2, SBD 3.2, SBD 4, SBD 6.1, SBD 6.2, SBD 8, SBD 9).		
5	Completion and inclusion of all other forms included in T2.2 Returnable Schedules.		
6	Letter of Good Standing with the Compensation Commissioner in terms of the Compensation for Occupational Injuries and Diseases Act No 130 of 1993.		
7	Prospective bidders shall be registered with the Construction Industry Development Board with a minimum rating of 9CE and submit a certificate as proof.		
8	There shall be a compulsory site visit for prospective bidders. Failure to attend shall disqualify a bidder. (Returnable documents Annexure 8)		
9	Valid Certificate of Compliance with Labour (Unemployment Insurance Fund)		
10	National Treasury's central supplier database registration report		

Note: In the event of a Joint Venture submitting a bid, every member of the joint venture must submit proof of registration with the CIDB, submitted with the bid document on the closing date of the bids; and the lead partner must have a minimum contract grading designation in the **9CE** class of construction work.

PHASE 2: TECHNICAL FUNCTIONALITY COMPLIANCE

In this Phase, Bidders will be assessed on the quality of the methodology; qualifications and experience of key personnel proposed for this project; proposed construction programme. Only Bidders scoring a minimum threshold of 70% for **Phase 2** will qualify for further evaluation and will be considered for Phase 3.

Functionality Criteria

i) Overview

Tender offers will be allocated a functionality score out of 100 in terms of the Functionality Criteria described herein. The score will be determined by the Employer, based on his interpretation of the comparative quality of the various tender offers, as evidenced by the documentation provided in the tender offer. Where information in support of a score for the various categories of Functionality Criteria is not provided fully and in compliance with:

- a) the requirements herein;
- b) the requirements of the corresponding schedules in T2.2: Returnable Schedules and the format stipulated in these; and
- c) full compliance with the requirements of the M&E functionality criteria in Table 5.

a score of zero will be allocated for that category.

The minimum score for Functionality Criteria that tender offers must attain to be deemed responsive is 70 out of 100, which excludes the M&E functionality criteria in Table 5. Tenderers whose tender offer does not achieve the minimum qualification score of 70 out of 100 including full compliance with the M&E functionality criteria, will be rejected as non-responsive.

In order to be considered for allocation of a Functionality Criteria score, tenderers must submit with their tender, a Functionality Criteria file labelled in accordance with Clauses 4.13.6 and 4.13, 4.15 of the Tender Data. The file shall contain all information required to support the allocation of a score for the respective Functionality Criteria where this information is not already provided in T2.2 Returnable Schedules. The file shall be indexed to match the Functionality Criteria given in Table 1, and shall be provided with dividers to separate and label each Functionality Criteria and the associated sub-sections.

A summary of the principle Functionality Criteria and the maximum possible score for each is shown in Table 1. The total score allocated for Functionality Criteria will be the sum of the scores allocated for each of the categories.

Table 1: Summary of principle functionality criteria	
Description of functionality criteria category	Weighting
Key personnel assigned to the work	25
Evidence of planning for the project	40
Tenderer's expertise and experience	35
Maximum possible score	100

The functionality score will be the average of that determined by not less than three evaluators appointed by the Employer, based on their interpretation of the comparative quality of the various tender offers. Their evaluation will be based on the information provided in the tender, in accordance with the returnable schedules referenced in the above table.

VOL 1 TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

ii) Key personnel assigned to the work

Tenderers will be allocated a functionality score in accordance with Table 2, to rate the key personnel assigned to the Contract. The total points allocated in terms of Table 2 will in turn be pro-rated to a total weighting of 25, to carry through to the total allowed for key personnel in Table 1. In order to receive a Functionality Criteria score for key personnel, the tender offer must provide the information required in Schedule B13: Key personnel assigned to the Contract and Experience of key personnel and Schedule B14: Proposed organisation and staffing.

Table 2: Functionality score for key personnel							
Key Personnel Role	Qualification		Professional accreditation		Relevant experience		Maximum points available
	Type	Points	Type	Points	Years	Points	
Contract Manager/ Director	4yr Eng + Masters degree ^{\$}	3	ECSA Pr Eng	2	>15	5	10
					>10	4	
					>5	3	
	4yr Eng degree	2	ECSA Pr Eng	2	>15	5	9
					>10	4	
					>5	3	
	3yr Eng diploma or BTech	1	ECSA Pr Tech	1	>15	5	7
					>10	4	
					>5	3	
Contractor's Representative* (as defined in GCC)	4yr Eng + Masters degree	3	ECSA Pr Eng	2	>15	5	10
					>10	4	
					>5	3	
	4yr Eng degree	2	ECSA Pr Eng	2	>15	5	9
					>10	4	
					>5	3	
	3yr Eng diploma or BTech	1	ECSA Pr Tech	1	>15	5	7
					>10	4	
					>5	3	
Environmental Officer*	4yr degree	1	SACNASP or similar	1	>4	1	3
Health and Safety Officer*	3yr diploma	1	Member ACHASM	1	>5	1	3
Construction Managers * #	4yr Eng degree	2	ECSA Pr Eng	2	>15	4	5 x 8 = 40
					>10	3	
					>5	2	
	3yr Eng diploma or BTech	1	ECSA Pr Tech	1	>15	4	5 x 6 = 30
					>10	3	
					>5	2	
	Other tertiary	1	NA		>15	4	5 x 5 = 25
					>10	3	
					>5	2	
Total points available							66
*: Denotes full-time on Site							
#: A score for up to five Construction Managers will be allocated. Further instructions concerning Construction Managers and information required in support of an associated score, are contained in Schedule B13: Key personnel assigned to the Contract							
\$: The Masters degree may be an engineering degree, project management, business administration or similar degree							

iii) Evidence of planning for the project

Tenderers will be allocated a functionality score in accordance with Tables 3a to 3d, to rate the evidence and quality of preliminary planning for the Contract. The total points allocated in terms of Tables 3a to 3d will in turn be pro-rated to a total weighting of 40, to carry through to the total allowed for evidence of planning in Table 1. In order to receive a Functionality Criteria score for each category, the tender offer must provide the information required in terms of the respective table and the cross-referenced Returnable Schedules.

Table 3a: Functionality score for preliminary planning – Provision of method statement in compliance with Schedule B26: Method statement H12; Proposed methodology		
Extent to which associated preliminary planning is demonstrated		Points available
Nil	No associated evidence of planning.	0
Poor	The technical approach and / or methodology is poor / is unlikely to satisfy project objectives or requirements. The Tenderer has misunderstood certain aspects of the scope of work and does not deal with the critical aspects of the project. The approach is generic and not tailored to address the specific project objectives and methodology. The quality plan, manner in which risk is to be managed etc is too generic.	35
Satisfactory	The approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The quality plan and approach to managing risk etc is specifically tailored to the critical characteristics of the project.	70
Excellent	Besides meeting the “good” rating, the important issues are approached in an innovative and efficient way, indicating that the Tenderer has outstanding knowledge of state-of-the- art approaches. The approach paper details ways to improve the project outcomes and the quality of the outputs.	100
Total points available		100
Table 3b: Functionality score for preliminary planning – Provision of an organogram and associated supporting information in compliance with Schedule B14: Proposed organisation and staffing		
Extent to which associated preliminary planning is demonstrated		Points available
Nil	No associated evidence of planning.	0
Poor	The organization chart is sketchy; the staffing plan is weak in important areas. There is no clarity in allocation of tasks and responsibilities.	35
Satisfactory	The organizational chart is complete and detailed, the technical level and composition of the staffing arrangements are adequate.	70
Good	Besides meeting the “satisfactory” rating, staff are well balanced i.e. they show good co-ordination, complimentary skills, clear and defined duties and responsibilities. Some members of the project team have worked together before on limited occasions.	90
Excellent	Besides meeting the “good” rating, the proposed team is well integrated and several members have worked together extensively in the past.	100
Total points available		100

Continued overleaf

VOL 1 TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Table 3c: Functionality score for preliminary planning – Provision of a preliminary programme of the Works in compliance with Schedule B15: Preliminary programme		
Extent to which associated preliminary planning is demonstrated		Points available
Nil	No associated evidence of planning.	0
Poor	Programme is inadequate and/or considered unrealistic and does not achieve required completion date.	35
Satisfactory	Programme is considered realistic and adequately shows the main components and compliance with completion date.	70
Excellent	Programme is considered realistic and includes the main components and subcomponents and linkages and compliance with completion date.	100
Total points available		100
Table 3d: Functionality score for preliminary planning – Provision of a realistic estimated monthly cash flow forecast (Schedule B17) in compliance with Schedule B15: Preliminary programme		
Extent to which associated preliminary planning is demonstrated		Points available
Nil	No associated evidence of planning.	0
Poor	The cash flow forecast is inadequate and/or considered unrealistic and does not match the preliminary programme.	6
Satisfactory	The cash flow forecast is considered realistic, matches the preliminary programme, and matches terms of payment specified in the Contract.	14
Excellent	Besides meeting the “satisfactory” rating, the cash flow forecast identifies major components of work which become due for payment in a clear and understandable format.	20
Total points available		20

iv) Tenderer’s expertise and experience

Tenderers will be allocated a functionality score in accordance with Table 4, to rate their expertise and experience in work of a similar nature to that required for this Contract. The total points allocated in terms of Table 4 will in turn be pro-rated to a score out of 35, to carry through to the total allowed for Tenderer’s expertise and experience in Table 1. In order to receive a score for each category, the tender offer must provide the information required in terms of Schedule O: Tenderer’s expertise and experience, in the format specified. To allow for the time value of money, project construction values must be escalated at 4% per annum from the year of completion, compounded annually, until December 2016.

Continued overleaf

VOL 1 TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

Table 4: Functionality score for Tenderer's expertise and experience in Civil Works			
Project/ component of work description	Points per project		Maximum Points per category
	Year when project completed	Points	
1. Construction of welded steel pipelines \geq DN 500 over a continuous length equal or exceeding 2 km.	2002 to 2016	12	12
	1997 to 2001	5	
2. Reinforced concrete construction of a 2.0 Ml reservoir and larger.	2002 to 2016	9	9
	1997 to 2001	5	
3. Building construction contracts with a value exceeding R10 million excluding VAT	2002 to 2016	7	7
	1997 to 2001	2	
4. Civil construction activities (earthworks, civil services) with a value exceeding R10 million excluding VAT	2002 to 2016	7	7
	1997 to 2001	2	

MECHANICAL AND ELECTRICAL WORKS-PUMP STATION

Tenders will be evaluated on the Functionality Criteria in Table 5. Only Tenders that fully comply with all aspects of the Functionality Criteria set out in Table 5 shall be responsive.

LIST ALL SUB-CONTRACTORS, IF APPLICABLE

1. _____
2. _____
3. _____
4. _____
5. _____

Table 5: Functionality score for Tenderer's expertise and experience in Mechanical and Electrical Works		
Description	Requirement	YES/NO
Experience of contractor responsible for the mechanical and electrical portion of the Works: Pump Station	A minimum of three pump stations with motors larger than 400 kW rated power.	
Experience of contractor responsible for the mechanical and electrical portion of the Works: Pump Station	At least one pump station with the duty head of the pumps at a minimum of 250 m.	
Name of contractor responsible for the mechanical and electrical portion of the Works: Pump Station		
Mechanical designer Qualification	Professional Mechanical Engineer (ECSA)	
Mechanical designer Experience	Minimum of two pump stations with motors larger than 400 kW rated power.	
Name of Mechanical Designer. Provide CV.		
Electrical designer Qualification	Professional Electrical Engineer (ECSA)	
Electrical designer experience	Minimum of two pump stations with MV motors and total rated motor power of 2 MW.	
Name of Electrical designer. Provide CV.		
Project Manager for Mechanical and Electrical Works – Pump Station	Minimum of two pump stations with a total rated motor power of 2 MW	
Name of Project Manager. Provide CV.		
MV commissioning engineer experience	Minimum of two pump stations with MV motors.	
Name of MV Commissioning Engineer. Provide CV.		
Control system designer and programmer experience	Minimum of ten projects with PLC & SCADA based control system for controlling of MV motors	
Name of control system designer and programmer. Provide CV		

PART T2 RETURNABLE DOCUMENTS

- T2.1 GENERAL
- T2.2 RETURNABLE SCHEDULES REQUIRED FOR BID EVALUATION
- T2.3 OTHER DOCUMENTS REQUIRED FOR BID EVALUATION
- T2.4 OTHER SCHEDULES AND DOCUMENTS THAT WILL BE
INCORPORATED INTO THE CONTRACT

SCHEDULES FOR COMPLETION BY TENDERER ATTACHED HEREIN

T2 RETURNABLE DOCUMENTS

T2.1. GENERAL

This section refers to documents that are returned with this single document and constitute a bid. Whilst many of the returnables are required for the purpose of evaluating bids, some will form part of the subsequent contract, as they form the basis of the bid. It is therefore of paramount importance that bidders return all information requested.

The bidder **must complete** the following returnable documents:

T1.1	Standard Bid Documents
T2.2	Returnable Schedules Required for Bid Evaluation
C1.1	Form of Bid and Acceptance and Appendix thereto
C2.2	Bill of Quantities
C2.3	Schedule of Importing Charges

T2.2. RETURNABLE SCHEDULES REQUIRED FOR BID EVALUATION

Standard Bid Documents are contained in Section T1.1. Further returnable schedules, listed here below, are contained in this Section T2 of the bid document.

B1	:	Proposed Deviations from the Specification
B2	:	Tenderer's Expertise and Experience
B3	:	Schedule of Propose Sub-Contractors, including Sub Contracting Undertaking
B4	:	Quality System Questionnaire
B5	:	Certificate of Attendance at Site Clarification Meeting
B6	:	Certificate of Authority of Signatory
B7	:	Letter of Intent for Performance Guarantee
B8	:	Health and Safety Plan : Declaration by Bidder
B9	:	Insurance Statement
B10	:	Financial Information of Bidder
B11	:	Commercial Equity Declaration
B12	:	Joint Venture Disclosure Form (where applicable)
B13	:	Key Personnel assigned to the Contract
B14	:	Schedule of proposed Organization and Staffing
B15	:	Preliminary Programme
B16	:	Record of Addenda to Bid Documents
B17	:	Estimated Monthly Expenditure
B18	:	Schedule of Current Commitments

B19	:	Schedule of Importing Charges
B20	:	Certificate of Attendance at Clarification meeting and Site Inspection
B21	:	Confirmation of current registration with CIBD
B22	:	Schedule of similar work undertaken by Tenderer
B23	:	Bribery and Corruption Declaration
B24	:	Compulsory Enterprise Questionnaire
B25	:	Construction Equipment to be assigned to the Contract
B26	:	Method Statements
B28	:	Technical Detail Sheets

T2.3 OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION

T2.3.1 Tax Clearance Certificate

- a) It is a condition of bid that any responsive bidder demonstrates compliance with respect to tax obligations with the SARS, or that arrangements therefor have been made to the satisfaction of the Receiver of Revenue.
- b) The Form, Application for Tax Clearance Certificate (in respect of Bids), must be completed by the Bidder in all respects and submitted to the Receiver of Revenue where the Bidder is registered for income tax purposes. The Receiver of Revenue will then furnish the Bidder with a Tax Clearance Certificate that will be valid for a period six (6) months from date of issue. This Tax Clearance Certificate must be submitted in the original format with the bid, that is before the closing time and -date of the bid. Failure to submit an original and valid Tax Clearance Certificate may invalidate a bid.
- c) Each Party to a Consortium/Sub-Contractors must complete a separate Tax Clearance Certificate. Copies of the Application for Tax Clearance Certificate are available at any Receiver's Office.

T2.3.2 Compensation Fund

The Bidder is required to submit with his bid, proof of registration and good standing with the Compensation Fund.

T2.3.3 Contractor Registration

The Bidder is required to submit with his bid, proof of registration and grading with the Construction Industry Development Board.

T2.4 OTHER SCHEDULES AND DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

T2.4.1 Form of Offer and Acceptance (C1.1)

T2.4.2 Contract Data (C1.2), including:

- Form of Performance Security (to be completed by Contractor after Award of Tender)
- Adjudicator's Agreement
- OHS Mandatory Form (to be completed by Contractor after Award of Tender)
- Certificate of Ownership of Goods (to be completed as and when required)

T2.4.3 Pricing Data (C2)

SCHEDULE B1

PROPOSED DEVIATIONS FROM SPECIFICATION

Should the Bidder desire to make any departures from or modification to the Specification, Annexures, or Drawings or to qualify his Bid in any way, he shall set out his proposals clearly hereunder or alternatively state them in a covering letter attached to his Bid and refer to each departure hereunder, failing which the Bid will be deemed to be unqualified.

The Tenderer's attention is drawn to clause F.3.8 of the Standard Conditions of Tender referenced in the Bid Data regarding the Employer's handling of material deviations and qualifications.

If no departures or modifications are desired, the schedule hereunder is to be marked NIL and signed by the Bidder.

[illegible]

Signed Date

Print Name Position

Bidder

SCHEDULE B2**TENDERER'S EXPERTISE AND EXPERIENCE**

The tender offer shall provide comprehensive details in a tabular format, of the Tenderer's expertise and experience over the last 15 years in work of a similar nature and magnitude to that entailed in this Contract. Where the Tenderer is a joint venture, or where sub-contractors are to be employed, the information shall be provided for the joint venture partners, or the sub-contractors as applicable.

The table of expertise and experience will be used to score functionality criteria in accordance with Table 4 in Additional Conditions of Tender in B1.3: Bid Data.

Details to be provided in the table of expertise and experience (example below) shall as a minimum include:

- Project name
- Project location
- Employing authority/client with contact details
- Supervising Engineer, with contact details
- Project conditions of contract (particularly with reference to Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by the Contractor, First Edition 1999 published by Federation Internationale des Ingenieurs-Conseils – FIDIC Yellow Book)
- Period of construction (commencement and completion)
- Description and value of principal work content, in particular highlighting disciplines as listed in Table 4 of Additional Conditions of Tender in B1.3: Bid Data
- Value of contract
- Tenderer's role and percentage participation in terms of value of the work

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

SCHEDULE B2

Project Name and Location	Name of entity undertaking the works.	Employing Authority and Supervising Engineer (Plus Telephone and email addresses)	Year of Construction		Conditions of Contract: GCC 2015 (Yes/No)	Principal work content (e.g. mech/elec for pump stations, pipework, valves, pumpsets ≥ 500 kW, multistage pumps ≥ 250 kW, pipework and pressure ratings, PLCs, etc)	Value of Contract (ZAR)	Tenderer's Role	% Financial participation of contract value
			Start	Finish					

SCHEDULE B3**SCHEDULE OF PROPOSED SUB-CONTRACTORS**

In accordance with the General Conditions of Contract and Contract Data the Tenderer shall state hereunder the names of sub-contractors he proposes to employ for the execution of certain sections of the Works.

The naming of any proposed subcontractor hereunder shall not be deemed to constitute a qualification of the Tender, and acceptance of a tender shall not be construed as approval of any or all of the listed subcontractors, neither shall it in any way limit or detract from the powers of the Employer's Agent and the obligations of the Contractor pertaining to subcontracting as stated in the Contract, nor shall it prevent the Tenderer from deviating in any way during the Contract from the list of proposed subcontractors hereunder if the Tender is accepted.

If any or all of the subcontractors listed hereunder are not approved subsequent to acceptance of the Tender, it shall in no way invalidate the Tender or the Contract, and the tendered unit rates for the respective items of work shall remain final and binding even if a subcontractor not listed below is approved by the Employer.

A Tenderer will not sub-contract more than 25% of the contract value to another enterprise that does not have equal or higher B-BBEE status level, unless the intended Sub-contractor is an EME that has the capability and ability to execute the sub-contract.

SCHEDULE B3

PART OR TYPE OF WORK (Please specify)	NAME AND ADDRESS OF PROPOSED SUB-CONTRACTOR	WORK RECENTLY EXECUTE D BY SUB- CONTRAC TOR	PREVIOUS EXPERIENCE WITH SUB-CONTRACTOR (YES/NO)

Signed Date

Print Name Position

Bidder

SCHEDULE B3

SUB-CONTRACTING UNDERTAKING

LETTER OF UNDERTAKING TO PERFORM AS A SUB-CONTRACTOR

(Copy as many as necessary)

Contract Number:

From: (Name and address of Sub-contractor)

.....

To: (Name and address of Contractor)

.....

The undersigned undertakes to *perform work/provide services/supply goods in connection with the above Contract as a *close corporation/sole proprietor/partnership/company and is prepared to perform in connection with the above-named Contract as Sub-contractor to the Contractor, the following *work/provide the following services/supply the following goods:

***(delete that which is not applicable)**

.....

for an estimated amount of R..... excluding VAT.

Signature:

Name:

Designation:

Date:

who duly warrants that he/she is authorised to sign this letter.

SCHEDULE B4**QUALITY SYSTEM QUESTIONNAIRE**

To be completed by the Bidder in compliance with ISO 9002 or SABS 0157 – Part II.

1. APPROVAL

IS THE BIDDER APPROVED BY	DATE	EQUIPMENT COVERED
- SABS?		
- ARMSCOR?		
- ESKOM?		
- OTHERS?		

2. ARE STANDARD FORMS OF QUALITY PLANS ATTACHED? YES / NO

3. DATA BOOKS

3.1 Standard table of contents of data books attached? YES / NO

3.2 Are data books kept by the Bidder? YES / NO

For how long?

3.3 Specify equipment that will be covered by separate data books.

4. AUDIT REPORT

Specify date _____ of most recent assessment / audit report on Bidder's Quality Management and Quality Control System(s).

Signed Date

Print Name Position

Bidder

SCHEDULE B5**CERTIFICATE OF ATTENDANCE AT SITE CLARIFICATION MEETING**

This is to certify that:

..... (Bidder)
 of (Address)

was represented by the person(s) named below at the compulsory meeting held for all bidders at
 (location) on (date), starting at

We acknowledge that the purpose of the meeting was to acquaint ourselves with the Site of the Works and/or matters incidental to doing the work specified in the bid documents in order for us to take account of everything necessary when compiling our entire bid.

Particulars of person(s) attending the meeting:

Name Signature
 Capacity

Name Signature
 Capacity

Note: All particulars above this horizontal divide line to be filled in by the Bidder **prior to** signature by Employer's representative.

Attendance of the above persons at the meeting is confirmed by the representative of Rendeals Four Consulting namely:

Name Signature
 Capacity Date
 Time

SCHEDULE B6**CERTIFICATE OF AUTHORITY OF SIGNATORY**

Indicate the status of the Bidder by ticking the appropriate box hereunder. The Bidder must complete the certificate set out below for the relevant category. It is to be noted that only one category is to be filled in.

- | | | |
|--------------------------|---|-------------------|
| <input type="checkbox"/> | A | Company |
| <input type="checkbox"/> | B | Partnership |
| <input type="checkbox"/> | C | Joint Venture |
| <input type="checkbox"/> | D | Sole Proprietor |
| <input type="checkbox"/> | E | Close Corporation |

SCHEDULE B6**A. Certificate for company**

I,, chairperson of the board of directors of
....., hereby confirm that by resolution of the board (copy
attached) taken on 20....., Mr/Ms,
acting in the capacity of, was authorised to sign all
documents in connection with this bid and any contract resulting from it on behalf of the
company.

As witnesses:

1. Chairman
..... Print Name Print Name
2. Date
..... Print Name	

SCHEDULE B6**B. Certificate of Partnership**

We, the undersigned, being the key partners in the business trading as
....., hereby authorise Mr/Ms, acting in
the capacity of, to sign all documents in connection with
the bid for Contract, and any contract resulting from it
on our behalf.

Name	Address	Signature	Date

NOTE: This certificate is to be completed and **signed by each and all of the key partners** upon whom rests the direction of the affairs of the Partnership as a whole.

SCHEDULE B6**C. Certificate for Joint Venture**

We, the undersigned, are submitting this bid in Joint Venture and hereby authorize Mr / Ms

....., authorised signatory of the firm

....., acting in the capacity of lead partner, to sign all documents in

connection with the bid for Contract and any contract resulting from it on our behalf.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Name of Firm	Address	Authorising	
		Signature	Name
Lead Partner			

SCHEDULE B6**D. Certificate for Sole proprietor**

I,, hereby confirm that I am the sole owner of the
business trading as

As witnesses:-

1. Signature: Sole Owner
..... Print Name Print Name
2. Date
..... Print Name	

SCHEDULE B6**E. Certificate for Close Corporation**

We, the undersigned, being the key members in the business trading as
..... hereby authorise Mr/Ms, acting in
the capacity of, to sign all documents in connection with
the bid for Contract and any contract resulting from it
on our behalf.

Name	Address	Signature	Date

Note: This Certificate is to be completed and signed by each and all of the key members upon whom rests the direction of the affairs of the Close Corporation as a whole.

SCHEDULE B7**LETTER OF INTENT FOR PERFORMANCE GUARANTEE**

The Tenderer shall provide a letter from the bank or institution with whom it has made the necessary arrangements, to the effect that the said bank or institution will be prepared to provide the required performance guarantee when asked to do so.

If my/our bid is accepted, I/we will, when required and within the time stipulated, provide a guarantee of

Insurance Company (name)

(of address)

.....

OR

Commercial Bank (Name)

(Branch)

(of address)

.....

to be approved by you, the Employer, for the amount stipulated.

I/we understand that failure to produce an acceptable Performance Security within the stipulated period is a fundamental breach of Contract, entitling the Employer to:

- (i) withhold all payments which may be due to the Contractor pending compliance with the stipulated requirements to produce an acceptable Performance Security.
- (ii) instruct the Contractor to cease all work pending provision of the Performance Security, and
- (iii) cancel the Contract.

Signed Date

Print Name Position

Bidder

SCHEDULE B8**HEALTH AND SAFETY PLAN : DECLARATION BY BIDDER**

I/we declare that we have read and understand the health and safety specifications contained in the Contract Data and undertake to:

- provide and demonstrate to the Employer a suitably and sufficiently documented health and safety plan (details below), which shall be applied from the date of commencement of and for the duration of the Contract,
- appoint a full-time competent employee in writing as the Construction Supervisor from the date of commencement of and for the duration of the Contract,
- appoint a full time/part time competent employee in writing as the Construction Safety Officer from the date of commencement of and for the duration of the Contract.

I/we undertake to rectify all non-conforming conditions for which we are responsible. I/we accept that, should I/we not rectify these timeously, they will be corrected by the Employer and the cost subtracted from any amounts due to me/us in terms of the Contract Data.

I/we confirm that I/we am/are registered and in good standing with the Compensation Fund and our

registration number is:,
alternatively (delete whichever is not applicable), my/our licensed compensation insurer is:

(Name)

(Address)

.....

To this effect, I/we attach proof of registration and good standing.

I/we certify that to the best of my/our knowledge and belief, the curricula vitae of our proposed key health and safety personnel cited hereinafter correctly describe their qualifications and experience.

Health and Safety Plan Details:

In this regard the tenderer shall prepare a Health and Safety Plan in respect of the Works during Contract Stage in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

- (1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- (2) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
- (3) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- (4) Regular monitoring procedures to be performed.
- (5) Regular liaison, consultation and review meetings with all parties.

SCHEDULE B8

- (6) Site security, welfare facilities and first aid.
- (7) Site rules and fire and emergency procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

Signed Date

Print Name Position

Bidder

SCHEDULE B9**INSURANCE STATEMENT****BIDDER'S DECLARATION OF INSURANCES**

I/We hereby declare that the insurances enumerated below have been effected by me/us.

I/We further declare that all premiums in respect of the insurances are fully paid up to date.

Cover Effected	Insurer and Policy Number	Expiry Date	Limits of Indemnity / Sums Insured	Deductibles	We
Contractor's All Risks					
Occupational Injuries and Diseases					
Unemployment Insurance					
Motor Vehicle Insurance					
Other:					

submit herewith a letter of good standing from the Workman's Compensation Commissioner in respect of Occupational Injuries and Diseases Insurance.

Signed Date

Print Name Position

Bidder

SCHEDULE B10**FINANCIAL INFORMATION OF BIDDER**

This information sheet has to be filled in by the financier of the Bidder, duly signed and stamped on behalf of the financial institution he represents.

Bidder / Bid Details

Bid Description :

Contract Period :

Name of Bidder :

Bank Account Number :

Bid Amount :

Performance Security will be provided by this Bank: YES ☐ NO ☐

If yes, state amount of Performance Security: R

Financial Institution

Name of Commercial Bank :

Branch :

Name of Bank Manager :

Telephone Number :

I / We acting on behalf of the above Commercial Bank confirm that

..... (Bidder)

has operated an account with us for the last years.

We have been requested to provide a bank rating based in relation to the financial capability of the Bidder, taking into account directives set out in the following two tables.

SCHEDULE B10**Financial Capability**

Maximum value of contract that the Bidder is considered capable of	Value on which Bank Rating must be used
up to R300 000	R24 000
R1 000 000	R78 000
R3 000 000	R240 000
R5 000 000	R480 000
R10 000 000	R900 000
R30 000 000	R2 400 000
R100 000 000	R7 800 000

BANK RATING

Bank Code	Description of Bank Code
A	Undoubted for the amount of enquiry
B	Good for the amount of enquiry
C	Good for the amount quoted if strictly in the way of business
D	Fair trade risk for amount of enquiry
E	Figures considered too high
F	Financial position unknown
G	Occasional dishonours
H	Frequent dishonours

The value on which our Bank Rating of the Bidder is based is R.....

(In words only)

The Bank Rating is code:

.....
Signature: Manager Financial Institution

.....
Print Name

.....
Date

RUBBER STAMP OF INSTITUTION

--

SCHEDULE B11**COMMERCIAL EQUITY DECLARATION****1. General**

The Employer considers the information contained in this Declaration as a material aspect of the Contract. Should there, during the duration of either the bid enquiry or contract, be any significant change in the equity situation of the Bidder, the Employer shall immediately be notified and the Employer will, in terms of the Contract Data, exercise its rights.

2. Name of Bidder**3. Type of enterprise e.g. Sole proprietor, partnership, CC, Pty, JV, etc****4. Details of Firm:**

Name of Company:

Street Address:

Postal Address:

Tel. Number: (Code) (Number)

Fax Number: (Code) (Number)

Contact Person:

Company Registration No.

Income Tax Registration No.

VAT Registration No.

Number of years in Business:

Founding Date of Firm:

SCHEDULE B11**5. List all equity owners**

Name	M/F	PDI (Y/N)	D (Y/N)	% Equity owned	ID Number

Attached registration documents and shareholders agreements.

PDI (Previously Disadvantaged Individuals). If disabled indicate under D.

6. Did the enterprise exist under a previous name? (Tick one box)

☐ Yes ☐ No

If yes:

What was its previous name?

Why did it change its name?

List the previous owners/partners/directors

.....

.....

7. Identify by name, status and length of service, those individuals in the enterprise (including owners) responsible for day-to-day management and business decisions.

Financing decisions	Name	Status (Yes/No)*			Length of service (years)
		PDI	Women	Disabled	
Cheque signing					
Signing and co-signing of loans					
Acquisition of lines of credit					
Demand & Retention Guarantees					
Major Purchases or acquisitions					
Signing contracts					

SCHEDULE B11

Management decision	Name	Status (Yes/No)*			Length of service (years)
		PDI	Women	Disabled	
Estimating					
Marketing and sales operations					
Hiring & firing of management personnel					
Hiring & firing of non-management personnel					
Supervision of office personnel					
Supervision of field/production activities					

*State Yes or No

Attach separate list, if necessary.

I (1), and (2)
 (names), hereby certify that, to the best of our knowledge, the information, facts and representations are correct and that we are duly authorised to sign on behalf of the Bidder.

Date:

Signature: (1).....

(2)

SCHEDULE B12**JOINT VENTURE DISCLOSURE FORM**

Employer:

Contract Number:

NOTE 1 This form need only be completed in the event of a Joint Venture submitting this bid.

NOTE 2 Fill in all the information requested in the spaces provided. Attach additional sheets if required.

NOTE 3 Provide a copy of the Joint Venture agreement. Demonstrate that the partners to the Joint Venture share in the ownership, control, management responsibilities, risks and profits of the Joint Venture. The Joint Venture agreement shall include specific details relating to:

- a) the contributions of capital and equipment;
- b) portions of the Contract to be performed by the partner's own resources; and
- c) portions of the Contract to be performed under the supervision of each partner.

NOTE 4 Provide copies of all written agreements between partners concerning the Joint Venture, including those that relate to ownership options and to restrictions/limits regarding ownership and control.

1. Joint Venture Particulars

Name

Postal Address

Physical Address

.....

Telephone

Fax

Name of authorized representative

2. Identity of Partner No. 1

Name

Postal Address

.....

SCHEDULE B12

Physical Address

.....

Telephone

Fax

Contact Person

3. Identity of Partner No. 2

Name

Postal Address

Physical Address

.....

Telephone

Fax

Contact Person

4. Identity of Partner No. 3

Name

Postal Address

Physical Address

.....

Telephone

Fax

Contact Person

5, Description of the role of the partners in the joint venture

Partner No. 1:

.....

Partner No. 2:

.....

Partner No. 3:

.....

SCHEDULE B12**6. Ownership of the joint venture**

- (i) Ownership percentage(s)
- Partner No. 1 %
- Partner No. 2 %
- Partner No. 3 %
- (ii) Partner percentage in respect of:
- a) Profit and loss sharing:
- Partner No. 1 %
- Partner No. 2 %
- Partner No. 3 %
- b) Initial capital contribution
- Partner No. 1 R.....
- Partner No. 2 R.....
- Partner No. 3 R.....
- (iii) Anticipated ongoing capital contributions:
- Partner No. 1 R.....
- Partner No. 2 R.....
- Partner No. 3 R.....
- (iv) Contributions of equipment (specify types, quality and quantities of equipment) to be provided by each partner:
- Partner No. 1
-
- Partner No. 2
-
- Partner No. 3
-

SCHEDULE B12**7. Recent contracts performed by partners in their own right or as partners in other joint ventures****a) Partner No. 1**

- (i)
- (ii)
- (iii)
- (iv)
- (v)

b) Partner No. 2

- (i)
- (ii)
- (iii)
- (iv)
- (v)

c) Partner No. 3

- (i)
- (ii)
- (iii)
- (iv)
- (v)

SCHEDULE B12**8. Control and participation in the joint venture**

(Identify by name and firm those individuals who are, or will be, responsible for, and have authority to engage in the relevant management functions and policy and decision making, indicating any limitations in their authority, for example, co-signature requirements and monetary limits).

a) Joint Venture cheque signing

.....
.....

b) Authority to enter into contracts on behalf of the Joint Venture

.....
.....

c) Signing, co-signing or collateralizing of loans

.....
.....

d) Acquisition of lines of credit

.....
.....

e) Acquisition of demand bonds

.....
.....

f) Negotiating and signing of labour agreements

.....
.....

SCHEDULE B12**9. Management of the performance of the Contract**

(Fill in the name and firm of the responsible person)

- a) Supervision of field operations
.....
- b) Major purchasing
.....
- c) Estimating
.....
- d) Technical management
.....

SCHEDULE B12**10. Management and control of the joint venture**

- a) Identify the managing partner

.....

.....

.....

- b) What authority does each partner have to commit or obligate the other to financial institutions, insurance companies, suppliers, subcontractors or other parties participating in the performance of the contemplated works:

Partner No. 1:

.....

Partner No.2:

.....

Partner No. 3:

.....

- c) Describe the management structure for the joint venture's work under this Contract

Management Function/Designation	Name	Partner

SCHEDULE B12**11. Personnel**

- a) State the approximate number of operative personnel (by trade/function/discipline) needed to execute the Joint Venture contract.

Trade/function/discipline	Number

- b) State the number of operative personnel to be employed on the Contract who are currently in the employ of partners:

.....

- c) State the number of operative personnel who are not currently in the employ of the respective partners and shall be engaged on the project by the Joint Venture:

.....

- d) State the name of the individual who shall be responsible for hiring Joint Venture employees:

.....

- e) State the name of the partner who shall be responsible for the preparation of Joint Venture payrolls:

.....

SCHEDULE B12**12. Services**

List the firms who provide the following services:

Service	Name	Contact Person	Telephone No.
Accounting			
Auditing			
Banking			
Insurance			
Legal			

13. Control and structure of the Joint Venture

Briefly describe the manner in which the Joint Venture is structured and controlled.

.....

.....

.....

.....

.....

.....

The undersigned warrants that he/she is duly authorised to sign this Joint Venture disclosure form and affirms that the foregoing statements are correct and include all the material information necessary to identify and explain the terms and operations of the Joint Venture and the intended participation of each partner in the undertaking.

The undersigned further covenants and agrees to provide the Employer with complete and accurate information regarding actual joint venture work and the payment therefor, and any proposed changes in any provisions of the Joint Venture Agreement, and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each partner relevant to the Joint Venture, by duly authorized representatives of the Employer.

SCHEDULE B12

Duly authorized to sign on behalf of:

..... **(the Joint Venture)**

Signature: Print Name:

Name:

Address:

.....

Telephone:

Date:

Duly authorized to sign on behalf of:

..... **(Partner No. 1)**

Signature: Print Name:

Name:

Address:

.....

Telephone:

Date:

Duly authorized to sign on behalf of:

..... **(Partner No. 2)**

Signature: Print Name:

Name:

Address:

.....

Telephone:

Date:

SCHEDULE B12

Duly authorized to sign on behalf of:

..... (**Partner No. 3**)

Signature: Print Name:

Name:

Address:

.....

Telephone:

Date:

SCHEDULE B13**KEY PERSONNEL ASSIGNED TO THE CONTRACT**

Tenderers shall insert in the table below, the names, proposed function, qualifications, professional accreditation and experience of the key personnel that the Tenderer proposes to assign to the Contract. Curriculum Vitae (CV), up to a maximum of three (3) pages must be submitted, for each of the key personnel proposed. This information must correspond with the details submitted in accordance with Schedule 16.2: Proposed Organization and Staffing, and Schedule 16.3: Experience of Key Personnel.

The CV's must specifically include the qualifications, professional accreditation and experience in construction projects of a similar nature. Contact details of at least three (3) contactable referees must also be provided. A template for CV's is provided overleaf.

Each CV shall be clearly cross-referenced to and labelled to correspond with the organogram submitted in terms of Schedule: Proposed Organisation and Staffing, so as to indicate which role the person in question is proposed to fulfil in the Contract.

The Tenderer shall include the requisite CVs in the Functionality Criteria file, to be submitted in accordance with Clause F.3.20.1 of T1.2: Tender Data.

KEY PERSONNEL SCHEDULE

Position	Name	Qualifications	Professional accreditation	Relevant experience (years)
Contract Manager/ Director ¹				
Site Agent ²				
Environmental Officer ³				
Health and Safety Agent/ Officer ³				
Construction Manager No. 1 ⁴				
Construction Manager No. 2 ⁴				
Construction Manager No. 3 ⁴				
Construction Manager No. 4 ⁴				
Construction Manager No. 5 ⁴				
Notes: 1: In terms of the General Conditions of Contract 2: Responsible for Contractor's obligations in terms of the General Conditions of Contract; pertaining to the component of the Works as defined in Scope of Works 3: Responsible for Contractor's obligations in terms of the Specifications (to be full-time on Site whilst associated work is underway) 4: Responsible for the Contractor's associated obligations in terms of Clause 6.8 of the General Conditions of Contract (to be full-time on Site whilst associated work is underway). The specific assignment of the component of the Works to the various foremen is at the Tenderer's discretion, must be clearly shown on the organogram (in accordance with Schedule 16.2: Proposed organisation and staffing) and cross-referenced to CVs (in accordance with Schedule 14.1: Experience of Key Personnel), and must generally cover the spectrum of the Works (such as buildings, reinforced concrete work, roads, earthworks, pipework, etc)				

SIGNATURE:

 (of person authorized to sign on behalf of the Tenderer)

DATE:

SCHEDULE B13

SCHEDULE OF EXPERIENCE OF KEY PERSONNEL (Continued)

INSERT KEY PERSONNEL CVs HERE ACCORDING TO THE TEMPLATE BELOW.

Name:

Profession:

Date of Birth:

Parent Firm:

Position in Firm: *Indicate if Director, Senior Contract or Contract Manager, Site Agent, Engineer etc*

Years with Firm:

Nationality:

Tertiary Education (and year obtained):

Professional Accreditation (and year obtained):

Years of Relevant Experience: *Relevant experience shall relate to large diameter continuously welded steel pipelines.*

Languages: *Indicate first language. If the first language is not English, please indicate proficiency in English. In other languages, including South African indigenous languages, please show speaking, reading and writing ability.*

	Speaking	Reading	Writing
English			

Countries of Work Experience:

Proposed Position on Team:

Key Qualifications

Under this heading, give outline of staff member's experience and training most pertinent to the assigned work on the team.

Relevant Experience

Describe degree of responsibility held by staff member on relevant previous assignments, and give dates, project values and locations. For experience in last ten years, also give types of activities performed and client references where appropriate.

Summary of Other Experience

Under this heading, list all positions held by staff member since graduation, giving dates, names of employing organization, title of position held and location, type and value of construction projects.

References

Declaration:

I confirm that the above information contained in the CV is an accurate description of my experience and qualifications and that, at the time of signature, I am available and will to serve in the position indicated for me in the proposal for **CONTRACT NO. W11268: NGQAMAKAWE REGIONAL SUPPLY SCHEME PHASE 5 BUTTERWORTH EMERGENCY SUPPLY SCHEME**

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B14**SCHEDULE OF PROPOSED ORGANIZATION AND STAFFING**

Contract, and how responsibilities for the various disciplines or work and components of the Works will be assigned. The names, roles and responsibilities of each person shall be clearly set out, and corresponding job descriptions shall be provided as an addendum to the organogram. In the case of a Joint Venture or where sub-contractors are made use of, the organogram must show how respective responsibilities are to be allocated. As a minimum, the organogram shall include for the personnel detailed in Schedule B13: Key personnel assigned to the contract. Further, the organogram must correspond to the details submitted in accordance with Schedule B13: Experience of Key Personnel.

The Tenderer shall include the requisite organogram and supporting information in the Functionality Criteria file of T1.3: Tender Data..

Tenderers must note that the Scope of Work requires that key personnel as proposed herein shall not be changed without written permission of the Engineer, and such permission will not be granted unless the alternate scores the same or higher than the original key person in terms of the applicable Functionality Criteria prescribed in T1.3: Tender Data.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B15**PRELIMINARY PROGRAMME**

The Tenderer shall provide a preliminary programme in Gantt Chart format showing how the requirements of C1.2: Contract Data and Part C3: Scope of Work will be met; and outlining the key activities and milestones for the Works and the sequencing thereof; including:

- design,
- approval of the Contractor's Documents,
- fabrication,
- supply,
- delivery,
- installation,
- testing,
- commissioning,
- training of the Employer's staff,
- Trial Operation Period, and
- Defects Notification Period.

The programme must be based on the Time for Completion as specified in Part C1: Agreement and Contract Data, and for the purposes of this preliminary programme must be based on the assumption that the Tenderer's Offer will be accepted by the Employer on 1 February 2018. Notwithstanding this assumed date the Tenderer's programme shall be flexible to allow for acceptance of his Offer at any time during the Tender Offer validity period.

The preliminary programme will be used to score functionality criteria in accordance with Table 3 of the Additional Conditions of Tender in B1.3: Bid Data.

Signed Date

Print Name Position

Bidder

SCHEDULE B16**RECORD OF ADDENDA TO BID DOCUMENTS**

We confirm that the following communications received from Supply Chain Management before the submission of this Bid, amending the Bid Documents, have been taken into account in this Bid:

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

Attach additional pages if more space is required.

Signed Date

Print Name Position

Bidder

SCHEDULE B17

ESTIMATED MONTHLY EXPENDITURE

The Tenderer shall state below the estimated value of work to be completed every month, based on his preliminary programme and his tendered unit rates. The amounts for contingencies and Contract Price Adjustment must not be included.

NOTES APPLICABLE:

- (i) Value added tax to be included in all amounts
- (ii) Assume for the purpose of this estimate, payment of certificates within 30 days after receipt by the Employer.
- (iii) In calculation of the last column,
- | | |
|-----------|-----------|
| j = d | m = l + g |
| k = j + e | n = m + h |
| l = k + f | etc |
- (iv) Failure to detail the required information, shall automatically signify that the Bidder lacks the infrastructure and resources necessary to execute and complete the Works.

Month No. in Contract Period	Estimated amount in Rands (VAT included)			
	a Received	b Payments made	a-b Net cash flow	Cumulative cash flow
1			d	j
2			e	k
3			f	l
4			g	m
5			h	n
6			etc	Etc
7				
8				
9				
10				
11				
12				
13				
14				
15				
Maximum negative cash flow. Take the largest negative number in the last column and write in here → → → → →				

Signed Date

Print Name Position

Bidder

SCHEDULE B18**SCHEDULE OF CURRENT COMMITMENTS**

Notes to Tenderer:

1. The Tenderer shall list below all Contracts currently under construction or awarded and about to commence and tenders for which offers have been submitted but awards not yet made.
2. In the event of a joint venture enterprise, details of all the members of the joint venture shall similarly be attached to this form.
3. The lists must be restricted to not more than 20 Contracts and 20 Tenders. If a tenderer's actual commitments or potential commitments are greater than 20 each, those listed should be in descending order of expected final contract value or sum tendered.

Table 1 CONTRACTS AWARDED

Client	Project	Expected total value of contract (incl. VAT)	Duration (Months)	Expected completion date

Table 2 TENDERS NOT YET AWARDED

Client	Project	Sum Tendered (incl. VAT)	Tendered Duration (Months)	Expected commencement

Signed

Date

Print Name

Position

Bidder

SCHEDULE B19**SCHEDULE OF IMPORTING CHARGES**

The Contract Price is based on the cost of labour and materials, sea or air freight and marine insurance, customs tariffs and dumping (if any), importing charges, railage rates and rates of exchange between South Africa and relevant foreign currencies ruling at the date of bid and the Contract Price shall be amended to provide for variations by either rise or fall occurring in these costs in accordance with the General Conditions of Contract.

The Contract Price is based on the following rates which were ruling at the date of fixing the rate of exchange:

Item	Description	Currency and amount	Exchange rate R1.00 =	Value, Rand

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

		Per cent	Value, Rand
2.1	Air freight per 1 000 kg
2.2	Sea Freight per 1 000 kg	
2.3	Sea Freight surcharge percent		
3.	Marine risk and Marine war risk insurance percent		
4.	Landing and heavy lift charges, dock dues, etc. R per R100		
	Plus R per m ³		
	Or R per 1 000 kg		
5.	Customs and/or dumping duties		
6.	Railage express goods		
7.	The South African port/airport of entry on which transport charges in respect of imported equipment are based is:		

DATE OF EXISTING RATE OF EXCHANGE: _____

SCHEDULE B20

**CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING
AND SITE INSPECTION**

This is to certify that I/We

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

being the duly authorised representative(s) of (Tenderer)

.....
.....

of (address)

.....
.....

Telephone No. Facsimile No.

Cell phone No. E-mail

Attended the Pre-Tender Clarification Meeting and visited and inspected the Site of the Works on
(date).....

in the company of the Engineer:

.....

and the Employer:

.....

Signed on behalf of the Tenderer

Signed on behalf of the Engineer

or the Employer

DATE

SIGNATURE

SCHEDULE B21**CONFIRMATION OF CIDB REGISTRATION**

The Tenderer shall attach the confirmation/s to this page, or alternatively submit it / them separately with a clear indication on this page as to where it has / they have been included in the Tenderer's submission.

SCHEDULE B22**SCHEDULE OF SIMILAR WORK UNDERTAKEN BY TENDERER**

The experience of the company or each of the members in the joint venture, specialist suppliers and subcontractors must be stated below.

List civil, mechanical and electrical engineering projects pertaining to major pipelines, pump stations and reservoirs (also specify size, complexity and value) constructed in South Africa and abroad. A recommendation/reference letter from the client authority on ongoing projects and/or performance or take-over certificate(s) for completed projects listed below must be submitted.

For each project, the letter must contain the following information in no more than 1 page:

- project type and value;
- contractual date of completion;
- completion date (where applicable) or the anticipated date of completion; and
- confirmation of level of participation of applicant in the project.

Name of company, joint venture member, specialist supplier or subcontractor:

Project Name and Location	Name of Entity Undertaking the Works.	Employing Authority and Supervising Engineer (plus telephone and fax No's)	Year of Construction		Predominant Work Content (e.g. pipeline, structures, earthworks, etc.)	Value of Contract (Notes 1 and 2) US\$ x 1000 or ZAR x 1000	Applicants		Remarks (Note 5)
			Start	Finish			Role (Note 3)	% Financial Participation	

Notes:

1. "Contract" relates to the work for which the tenderer was responsible. Value of Contract to be given in US\$ or ZAR.
2. Where applicable, use exchange rates prevailing at start of construction and state exchange rate used.
3. State position e.g. sole responsibility, member of joint venture (level of participation), or major sub-contractor.
4. Number of sheets appended by the tenderer comprising this form (enter "Nil" if none).
5. For steel pipeline contracts, state the length, diameter and the wall thickness of the pipe installed.
6. Only projects with a contract value in excess of R200 million must be reported.

SCHEDULE B23**BRIBERY AND CORRUPTION DECLARATION**

- The Tenderer is required to provide the following information applicable in the last 5 (five) years in relation to each of its members and/or partners which shall include the directors, employees or agents of each member and/or partner where the conduct of such person rendered the Tenderer directly and vicariously responsible ("members") whether individually or as part of any other entity:

		YES	NO
1.1	Have any of its members been charged with any act of bribery and/or corruption?		
1.2	Have any of its members been convicted of any act of bribery and/or corruption?		
1.3	Have any of its members been implicated in or alleged to have been involved in any corrupt practices, collusion, bribery or related practices?		
1.4	Is there any reason to believe that a charge will be laid against a member arising from an act of bribery and/or corruption?		

- Should any of the above questions be answered in the affirmative, full details must be furnished:

2.1	the date of the charge and the nature thereof:
2.2	the current status of the charge:
2.3	the date of conviction (if any):
2.4	the court in which the charges are being/where prosecuted:
2.5	the details of the members convicted, the facts giving rise thereto, the charges preferred against the member and the details of any judgement by the relevant court:
2.6	full details of any contract which was or is alleged to have been affected by the act of bribery and/or corruption:
2.7	any sentence imposed on the member:
2.8	full and precise details of any members implicated in any corrupt practice, collusion, bribery or related practices:
2.9	if it is believed that a member will be charged, full details of the offence and the facts giving rise to it are required:

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B24**COMPULSORY ENTERPRISE QUESTIONNAIRE**

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

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number:

Close corporation number:

Tax reference number:

Section 6: Record in the service of the state

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

<input type="checkbox"/> a member of any municipal council <input type="checkbox"/> a member of any provincial legislature <input type="checkbox"/> a member of the National Assembly or the National Council of Province <input type="checkbox"/> a member of the board of directors of any municipal entity <input type="checkbox"/> an official of any municipality or municipal entity	<input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No 1 of 1999) <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity <input type="checkbox"/> an employee of Parliament or a provincial legislature
--	--

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

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

*

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

*Insert separate page if necessary.

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

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

<input type="checkbox"/> a member of any municipal council <input type="checkbox"/> a member of any provincial legislature <input type="checkbox"/> a member of the National Assembly or the National Council of Province <input type="checkbox"/> a member of the board of directors of any municipal entity <input type="checkbox"/> an official of any municipality or municipal entity	<input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No 1 of 1999) <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity <input type="checkbox"/> an employee of Parliament or a provincial legislature
--	--

*

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

*Insert separate page if necessary.

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:

- (i) authorises the Employer to obtain a tax clearance certificate from the South African Revenue Services that my/our tax matters are in order;
- (ii) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act, 2004;
- (iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise, has within the last five years been convicted of fraud or corruption;
- (iv) confirms that I/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the Scope of Work that could cause or be interpreted as a conflict of interest; and
- (v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed: Date:

Name: Position:

Enterprise name:

SCHEDULE B25

CONSTRUCTION EQUIPMENT TO BE ASSIGNED TO THE CONTRACT

The Tenderer shall provide the details of major items of equipment that are immediately available and which will be assigned to the Contract.

ITEM OF EQUIPMENT	CAPACITY	NO	MAKE AND TYPE	OWNED BY CONTRACTOR	TO BE PURCHASED BY CONTRACTOR	TO BE HIRED BY CONTRACTOR	TO BE SOURCED BY OTHER MEANS (STATE MEANS)
Excavators (20t+)							
Front end Loader (127 kW+)							
TLB							
D7 Dozer 179 kW							
Mobile Crane (15t)							
Batching Plant (min. 40m ³ /hr)							
Grader 112 kW							
Water Trucks							
Smooth Drum Roller							
Concrete Mixer Truck 5m ³							
Side Booms							
Tipper Truck 10m ³							
Service Truck							
Drilling Rigs							
HD Weld Set 100 amp rating							

SIGNATURE:

(of person authorised to sign on behalf of the Tenderer)

DATE:

SCHEDULE B25**CONSTRUCTION EQUIPMENT TO BE ASSIGNED TO THE CONTRACT (CONT'D)**

The Tenderer shall provide the details of additional major items of equipment, which he considers crucial for the project, which are immediately available and which will be assigned to the Contract.

ITEM OF EQUIPMENT	CAPACITY	NO	MAKE AND TYPE	OWNED BY CONTRACTOR	TO BE PURCHASED BY CONTRACTOR	TO BE HIRED BY CONTRACTOR	TO BE SOURCED BY OTHER MEANS (STATE MEANS)

SIGNATURE:

(of person authorised to sign on behalf of the Tenderer)

DATE:

SCHEDULE B26

METHOD STATEMENTS:

GENERAL

The Tenderer shall submit preliminary Method Statements of his proposed methods for the work to be executed in terms of the relevant Method Statement. Details to be included shall, as a minimum, be as listed in the relevant Schedule detailed hereinafter. These Method Statements are for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the successful bidder shall be required to submit fully compliant Method Statements pursuant to Clause 1.10.1.1 of the Specification. Nothing in the preliminary statements submitted with the Tender shall be construed to supersede any provision of the Specification or requirement of the Contract.

- H01 Quality Assurance
- H02 Environmental Protection
- H03 Occupational Health and Safety
- H04 Pipe Supply Management
- H05 Construction Planning & Scheduling
- H06 Construction Management and Supervision
- H07 Pipe Laying and Testing
- H08 Details of Welding and Weld Testing
- H09 Weld Joint Repairs (Lining and Coating)
- H10 Monitoring of Pipe Coating Integrity
- H11 Materials Management Plan – bedding/spoil/Borrow pits
- H12 Proposed Methodology

Number of sheets, appended by the Tenderer, comprising this Schedule.....(if nil, enter Nil)

SIGNATURE:

DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26**METHOD STATEMENTS:****H01: QUALITY ASSURANCE**

The Tenderer shall submit with his Tender, preliminary Quality documentation describing his Quality Management System based on ISO 9001:2008, and his preliminary Project Quality Plan based on ISO 10005:2005. These documentation are for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary documentation shall be supplemented and elaborated to a fully detailed Quality Management System and Project Quality Plan, pursuant to Clause 1.10.2 of the Specification.

1. In describing the Quality Management System, the Tenderer shall, as a minimum, submit the following (with reference to ISO 9001:2008):

- Quality Policy and Objectives prepared, as defined in Clause 5.3 and Clause 5.4.1 respectively.
- Quality Manual consisting, as a minimum of the contents as specified in Clause 4.2.2.
- Documented procedures consisting, as a minimum, of the specified procedures:
 - Control of documents (Clause 4.2.3);
 - Control of quality records (Clause 4.2.4);
 - Internal audit (Clause 8.2.2);
 - Control of nonconforming product (Clause 8.3);
 - Corrective action (Clause 8.5.2); and
 - Preventive action (Clause 8.5.3).
- List of documentation required by the organization to ensure the effective planning, operation and control of its processes. Examples may include:
 - Risk Management Process;
 - Process maps;
 - Organization charts;
 - Process for Review/Verification/Approval of output;
 - Procurement process;
 - Production schedules;
 - Quality plans; and
 - Management reviews
- List of Records at a minimum as specified in Clause 4.2.4. The Tenderer shall also list other records that demonstrate conformity of their processes, products and Quality Management System.

2. In describing the Project Quality Plan, the Tenderer shall, as a minimum, submit the following (with reference to ISO 10005:2005):

- A preliminary Project Quality Plan, in text format, which specifies which processes, procedures and associated resources will be applied by whom and when, to meet the requirements of the Contract.
- An organogram highlighting the Quality Assurance structure and appointments. Also detailing the scopes of responsibilities to be assigned to the key personnel.
- The procedures which describe the review, acceptance, implementation and revision of the Project Quality Plan.

- 3. The Tenderer shall, as a minimum, submit a plan for the transition from ISO 9001:2008 to ISO 9001:2015.**

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H02: ENVIRONMENTAL PROTECTION

The Tenderer shall submit a preliminary Environmental Plan in compliance with the requirements of Clause 4.3.3 of the Specification. Details to be included shall demonstrate sufficient environmental and social management procedures, resources and documents, as well as the requisite skills to be able to discharge the responsibilities in accordance with the environmental Specification, the Department of Environmental Affairs Environmental Authorisation approving the Project, and the relevant Laws.

These Method Statements are for evaluation purposes only and shall not be construed as approval by the Engineer. Following the award of the Contract, the preliminary Method Statements shall be supplemented and elaborated to fully detailed method statements pursuant to Clause 1.10.1.1 of the Specification. The detailed Method Statements will integrate with the Quality Management System and indicate appropriate “hold points”, “approvals”, and “surveillance points”, etc., to allow the Engineer’s environmental staff to manage the environmental aspects as required.

The Tenderer’s signature below shall be confirmation that the statements have been submitted in full.

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26**METHOD STATEMENTS:****H03: OCCUPATIONAL HEALTH AND SAFETY**

The Tenderer shall submit preliminary Method Statements of his proposed Occupational Health and Safety Plan. These Method Statements are for evaluation purposes only and shall not be construed as approval by the Engineer. Following the award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Occupational Health and Safety (OH&S) Plan pursuant to Section 2 of the Specification.

The preliminary OH&S Plan shall, as a minimum, address the following matters:

- OH&S objectives for the project.
- OH&S structures showing the scopes of responsibilities to be assigned to the OH&S personnel and how the responsible OH&S personnel will relate to one another and the rest of the site organisation.
- Curricula Vitae (CVs) for the key OH&S personnel [16(2), 6(1) and 7(1) in terms of the OH&S Act], in the form detailed in Schedule Q, Part 2, stating qualifications and experience relevant to the responsibilities proposed.
- Schedules including timeframes and content for:
 - OH&S audits and inspections; and
 - Induction and other training.
- Framework for the emergency contingency plans.
- Management of OH&S risks, including the Tenderer's proposed risk assessment methodology.
- The methodology for monitoring and review of OH&S performance.

SIGNATURE: DATE:
 (of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26**METHOD STATEMENTS:****H04: PIPE SUPPLY MANAGEMENT**

The Tenderer shall submit a preliminary Method Statement of his proposed methods for the work to be done in terms of this Method Statement. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification.

The Tenderer's signature below shall be confirmation that the statements have been submitted in full.

1. Short Description of Key Construction Management Process
--

- | |
|---|
| <ul style="list-style-type: none"> • Pipe Supply Management. |
|---|

2. Management

- Define scope of work.
- Identify potential steel suppliers and state capacity.
- State the lead time for supply of steel grades X42 and X52.
- List potential risks associated with steel supply.
- Identify potential pipe manufacturers and state capacity.
- State the proposed form of supply agreement with the pipe manufacturer.
- State the lead time for supply of pipes.
- Describe the link to the Construction Planning and Scheduling Process (Refer to H05).

Section Prepared by:Signature:

3. Resourcing

- Identify the responsible manager.
- Describe the proposed funding of the procurement of steel.

Section Prepared by:Signature:

4. Technical Integration

- For relevant Specifications Sections, list specific key requirements.
- List types of coatings and linings offered at the pipe manufacturers complying with the Specification.
- State the pipe production rates offered for these coatings and linings.
- Provide an assessment of the potential impact of the Pipe Suppliers on the critical path on the construction programme.
- Define the communication links with the internal planning process.
- Describe the risk management approach and contingency planning.
- Describe the logistics of transportation and storage of pipes.

Section Prepared by:Signature:

5. Occupational Health and Safety

- Describe the Occupational Health and Safety (OH&S) responsibilities of the Suppliers related to this activity.
- List the sections of the OH&S Plan relevant to this activity.
- Describe how this activity has been taken into consideration in the OH&S Plan.

Section Prepared by: Signature:

6. Environmental

- Describe the steps that will be taken to ensure that the work is carried out in terms of the relevant Specification clauses, including but not limited to the following pertinent pipe supply management activities:
 - Storage at borrow pits;
 - Storage in the construction servitude, especially in expanded lay down areas;
 - Surface drainage and erosion protection;
- Describe how detrimental environmental impacts (dust, noise, etc.) related to the pipe management activities will be dealt with.
- Describe how materials used for repairing of lining and coating on site will be managed.

Section Prepared by: Signature:

7. Quality Assurance

- Describe the Quality Assurance (QA) responsibilities of the Contractor, subcontractors, suppliers and service providers related to this activity.
- List the sections of the Project Quality Plan (PQP) relevant to this activity.
- Describe how this activity has been taken into consideration in the PQP.
- List potential necessary deviations from the PQP.
- List specific QA requirements applicable to Specification clauses relevant to this activity.

Section Prepared by: Signature:

8. Security

- Describe the site security arrangements.
- Describe the project incident management.

Section Prepared by: Signature:

9. Communication

- Describe the communication of Management Instructions.
- Describe proposed induction and awareness training procedures.

Section Prepared by: Signature:

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H05: CONSTRUCTION PLANNING AND SCHEDULING

The Tenderer shall submit a preliminary Method Statement of his proposed methods for the work to be done in terms of this Method Statement. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification.

The Tenderer's signature below shall be confirmation that the statements have been submitted in full.

1. Short Description of Key Construction Management Processes

- Construction Planning and Scheduling.

2. Resources

- Identify the proposed key Construction Planning staff.
- Submit CVs reflecting the relevant planning and progress mentoring experience and experience in use of scheduling software, including the specified software.
- Describe the required inter-relationship between the planning resources and the different:
 - Levels of Management and Supervision;
 - Construction disciplines; and
 - Subcontractors, Suppliers and Service Providers.

3. Integration and Communication

- Describe the inter-disciplinary process which controls the development and implementation of the Contract Programme.
- Describe the inter-disciplinary process which controls the maintenance and updating of the Contract Programme.
- Describe the proposed interaction with the Engineer's planning resources, in particular with respect to development of the Contractor's programmes and agreeing progress.

4. Quality Assurance

- List applicable sections of the PQP and describe how the Construction Planning and Scheduling processes have been integrated.

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H06: CONSTRUCTION MANAGEMENT AND SUPERVISION

The Tenderer shall submit a preliminary Method Statement of his proposed methods for the work to be done in terms of this Method Statement. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification.

The Tenderer's signature below shall be confirmation that the statements have been submitted in full.

1. Short Description of Key Construction Management Processes

- Construction Management and Supervision.

2. Resources

- Identify the proposed key Management and Supervision staff.
- Submit CVs reflecting the relevant management and supervision experience.
- Describe the required inter-relationship between the management and supervision resources and the different:
 - Levels of Management and Supervision;
 - Construction disciplines; and
 - Subcontractors, Suppliers and Service Providers

3. Quality Assurance

- List the applicable sections of the relevant construction management system that describes how process control quality assurance will be integrated with construction management and supervision.

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H07: PIPE LAYING AND TESTING

The Tenderer shall submit a preliminary Method Statement of his proposed methods for the work to be done in terms of this Method Statement. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification.

The Tenderer's signature below shall be confirmation that the statements have been submitted in full.

1. Short Description of Key Construction Management Process

- Pipe Laying and Testing.

2. Scope of Work

- Define the scope of work for:
 - Placing of the Trench Bed;
 - Placing and aligning of pipe sections;
 - Welding pipe joints and weld testing;
 - Bedding of the pipes and joint repairs; and
 - Hydrostatic testing of the pipeline.

3. Subcontractors and Suppliers

- State whether any of the work will be done by subcontractors.
- Should any of the work be done by subcontractors.
 - List the key subcontractors (subcontract value> R2M); and
 - State the extent and scope of subcontractor work.

4. Resources

- Provide an organogram depicting the management and execution of the work with respect to:
 - Staff; and
 - Systems and equipment.
- Identify the requirements and need for special training to ensure that the work is done to the required standard, safely and effectively (for welding of joints, doing joint repairs, etc.).

5. Technical Integration

- For relevant Specification Sections, list specific key requirements.
- Describe the management process.
- Provide an assessment of the available work capacity for each subcontractor.
- Provide an assessment of the impact that the work in terms of this method statement will have on the critical path of the project construction programme as a whole.
- Define the communication links with the internal planning process.
- Describe the risk management approach and contingency planning.

- Provide details with respect to the following:
 - Equipment and procedures to be used in placing and compacting the trench bed and pipe bedding materials;
 - Equipment and procedures to be used in placing and aligning the pipe sections;
 - Equipment and procedures to be used to do welded field joints and joint repairs;
 - Equipment and procedures to be used to do the hydrostatic pipeline test; and
 - Provide an indication of the production rates that can be expected for the placing of the trench bed and the placing, bedding, welding of joints and making of joint repairs of the pipe sections (m/day, or pipe sections/day, etc.).

Section Prepared by: Signature:

6. Occupational Health and Safety

- Describe how this activity will be taken into consideration in the OH&S Plan.
- Describe the Occupational Health and Safety (OH&S) responsibilities of the Contractor, Subcontractors, suppliers and service providers related to this activity.
- Confirm the proposed statutory appointments applicable to this activity.

Section Prepared by: Signature:

7. Environmental

- Describe the steps that will be taken to ensure that the work is carried out in conformance with the relevant environmental Specification clauses including but not limited to the following pertinent pipe laying and testing activities:
 - Hauling;
 - Spoil, borrow and excavated material management;
 - Trench backfilling and bedding;
 - Dealing with water;
 - Road works (access road construction);
 - Laying of pipes;
 - Pressure testing of pipes;
 - Maintenance of roads;
 - Landscaping and Rehabilitation; and
 - Access control and security.
- Describe how detrimental environmental impacts (dust, noise, etc.) related to the activities above will be dealt with.

Section Prepared by: Signature:

8. Quality Assurance

- Describe the Quality Assurance (QA) responsibilities of the Contractor, subcontractors, suppliers and service providers related to this activity.

Section Prepared by: Signature:

9. Security

- Describe the security arrangements with respect to:
 - Safeguarding equipment used in laying and testing of the pipeline.

Section Prepared by: Signature:

10. Communication

- Describe the communication procedures with respect to:
 - Management Instructions;
 - Awareness training; and
 - Inductions.

Section Prepared by: Signature:

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H08: DETAILS OF WELDING AND WELD TESTING

The Tenderer shall submit a preliminary Method Statement of his proposed methods for the work to be done in terms of this Method Statement. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification.

The Tenderer's signature below shall be confirmation that the statements have been submitted in full.

1. Short Description of Key Construction Management Process

- Details of Welding and Weld Testing.

2. Scope

- Define the scope of work for:
 - Qualification of Welding Procedures Specifications for Welds;
 - Qualification of Welders;
 - Preparation of Joints;
 - Pre-and post heating Techniques;
 - Qualification of Inspection Personnel;
 - Inspection and Testing of Factory Welds (various NDT methods); and
 - Inspection and Testing of Field Welds (various NDT methods).

3. Subcontractors and Suppliers

- State whether any of the work will to be done by subcontractors.
- If any of the work will be done by subcontractors:
 - List all potential key subcontractors (subcontract value> R2M); and
 - Extent and scope of subcontractor work.

Section Prepared by: Signature:

4. Resources

- Provide an organogram depicting the management and execution of the work with respect to:
 - Staff;
 - Contractor Inspection Authority;
 - Employers Approved Inspection Authority (AIA); and
 - Systems and equipment.
- Identify the manager responsible for the work integration management (CV to reflect the experience in this regard).
- Provide the staff, labour and equipment requirements for the welding of:
 - Pipe joints welding sequence;
 - Welding repairs; and
 - Non-destructive Testing (NDT).

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

- Identify the requirements and need for special training to ensure that the work is done correctly and effectively to comply with Standards.
- Identify the requirements and need for special training to ensure that the work is done correctly, safely and effectively (for welding of joints, doing joint repairs, etc.)

Section Prepared by: Signature:

5. Technical Integration

- Describe the management process.
- For each subcontractor, provide an assessment of his work capacity.
- Provide an assessment of the impact that the work in terms of this method statement will have on the critical path of the project construction programme as a whole.
- Define the communication links with the internal planning process.
- Describe the risk management approach and contingency planning.
- Provide details with respect to the following:
 - Equipment and procedures to be used to do welded factory joints and joint repairs;
 - Equipment and procedures to be used to do welded field joints and joint repairs;
 - Equipment and procedures to be used to do the hydrostatic pipeline test; and
 - Provide an indication of the production rates that can be expected for the placing of the trench bed and the placing, bedding, welding of joints and making of joint repairs of the pipe sections (m/day, or pipe sections/day, etc.).

Section Prepared by: Signature:

6. Occupational Health and Safety

- Describe how this activity will be taken into consideration in the OH&S Plan.
- Describe actions to ensure safe trench operations.
- Describe actions to work safely in confined space inside the pipe.
- Describe the Occupational Health and Safety (OH&S) responsibilities of the Contractor, Subcontractors, suppliers and service providers related to this activity.

Section Prepared by: Signature:

7. Environmental

- Describe the steps that will be taken to ensure that the work is carried out in terms of the relevant Specification clauses, including but not limited to the following pertinent activities that requires welding:
 - Laying of steel pipes.
- Describe how detrimental environmental impacts (pollution, erosion, etc.) related to welding will be dealt with.

Section Prepared by: Signature:

8. Quality Assurance

- Describe the Quality Assurance (QA) responsibilities of the Contractor, subcontractors, suppliers and service providers related to this activity.

Section Prepared by: Signature:

9. Security

- Describe the security arrangements with respect to safeguarding equipment used in laying and testing of the pipeline.

Section Prepared by: Signature:

10. Communication

- Describe the communication procedures with respect to:
 - Management Instructions;
 - Awareness training; and
 - Inductions.

Section Prepared by: Signature:

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H09: WELD JOINT REPAIRS (LINING AND COATING)

The Tenderer shall submit a preliminary Method Statement of his proposed methods for the work to be done in terms of this Method Statement. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification.

The Tenderer's signature below shall be confirmation that the statements have been submitted in full.

1. Short Description of Key Construction Management Process

- Weld joint repairs (Lining and Coating).

2. Scope of work

- Define the scope of work for:
 - Internal lining joint repairs; and
 - External coating joint repairs.

3. Subcontractors and Suppliers

- State whether any of the work will to be done by subcontractors; and
- For work to be done by subcontractors:
 - List all potential key subcontractors (subcontract value> R2M); and
 - List all potential key suppliers of material and equipment.

4. Resources

- Provide an organogram depicting the management and execution of the work with respect to:
 - Staff; and
 - Systems and Equipment.
- Provide the staff and labour requirements for the repair of:
 - External pipe joints; and
 - Internal pipe joints.
- Identify the requirements and need for special training to ensure that the work is done to the required standard, safely and effectively.

5. Technical Integration

- For relevant Specification clauses, list specific key requirements.
- Describe the management process.
- Provide an assessment of the available work capacity for each of the key subcontractors and material and equipment suppliers.
- Provide an assessment of the impact that the work in terms of this method statement will have on the critical path of the project construction programme as a whole.
- Define the communication links with the internal planning process.

VOL 1 -TENDERING PROCEDURES AND RETURNABLE DOCUMENTS

- Describe the risk management approach and contingency planning.
- Provide an indication of the production rate that can be expected for the repair of internal and external joints (joints/day, etc.).

Section Prepared by: Signature:

6. Occupational Health and Safety

- Describe how this activity will be taken into consideration in the OH&S Plan.
- Describe the Occupational Health and Safety (OH&S) responsibilities of the Contractor, Subcontractors, suppliers and service providers related to this activity; and
- Confirm the proposed statutory appointments applicable to this activity.

Section Prepared by: Signature:

7. Environmental

- Describe the steps that will be taken to ensure that the work is carried out in conformance with the relevant environmental Specification clauses including but not limited to the following pertinent weld joint repairs (lining and coating) activities:
 - Access control and security;
 - Laying and weld joint repair of pipes; and
 - Legal disposal of redundant materials and containers.
- Describe how detrimental environmental impacts (dust, noise, etc.) related to the activities above will be dealt with.

Section Prepared by: Signature:

8. Quality Assurance

- Describe the Quality Assurance (QA) responsibilities of the Contractor, subcontractors, suppliers and service providers related to this activity.

Section Prepared by: Signature:

9. Security

- Describe the storage requirements/arrangements for material.
- Describe the associated security arrangements.

Section Prepared by: Signature:

10. Communication

- Describe the communication procedures with respect to:
 - Management instructions;
 - Awareness training; and
 - Inductions.

Section Prepared by: Signature:

SIGNATURE: DATE:
 (of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H10: MONITORING OF PIPE COATING INTEGRITY

The Tenderer shall submit a preliminary Method Statement of his proposed methods for the work to be done in terms of this Method Statement. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification.

The Tenderer's signature below shall be confirmation that the statements have been submitted in full.

1. Short Description of this Method Statement

- Monitoring of Pipe Coating Integrity.

2. Scope of Work

- Define the scope of work for:
 - Instituting protection measures to avoid the pipe coating integrity being compromised;
 - Monitoring the integrity of the pipe coating prior to and during installation of the pipeline and the remedial action to be taken where the integrity of the pipe coating is found to be compromised;
 - Training of supervisory staff;
 - Establishing the integrity of the pipe coating after completion of the installation and before commissioning of the pipeline and the remedial action to be taken where the integrity of the pipe coating is found to be compromised. This can for example be achieved using a combination of the Cathodic Protection System and pipe coating survey techniques like PCM and DCVG; and
 - Establishing the integrity of the pipe coating after commissioning of the pipeline but before the issuing of the Taking-Over Certificate and the remedial action to be taken where the integrity of the pipe coating is found to be compromised. This can also be achieved using a combination of the Cathodic Protection System and pipe coating survey techniques like PCM and DCVG.

3. Subcontractors and Suppliers

- State whether any of the work will to be done by subcontractors.
- Should any of the work be done by subcontractors:
 - List the key subcontractors; and
 - State the extent and scope of subcontractor work.

4. Resources

- Provide an organogram depicting the management and execution of the work with respect to:
 - Staff; and
 - Systems and Equipment.
- Identify the manager responsible for the work integration management (CV to reflect the experience in this regard).
- Provide the staff and labour requirements for:
 - Instituting protection measures to avoid the pipe coating integrity being compromised;
 - Monitoring the integrity of the pipe coating before and during installation of the pipeline;
 - Establishing the integrity of the pipe coating after installation of the pipeline;
 - Establishing the integrity of the pipe coating after commissioning of the pipeline but before the issuing of the Taking Over Certificate; and
 - Undertaking remedial action where the pipe coating is found to be compromised.
- Identify the requirements and need for special training to ensure that the work is done to the required standard, safely and effectively.

5. Technical Integration

- For relevant Specification Sections, list specific key requirements.
- Describe the risk management approach and contingency planning.

Section Prepared by: Signature:

6. Occupational Health and Safety

- Describe the Occupational Health and Safety (OH&S) responsibilities of the Contractor, Subcontractors, suppliers and service providers related to this activity.

Section Prepared by: Signature:

7. Environmental

- Describe the steps that will be taken to ensure that the work is carried out in conformance with the relevant environmental Specification clauses including but not limited to the following pertinent pipe coating integrity activities:
 - Access control and security.

Section Prepared by: Signature:

8. Quality Assurance

- Describe the Quality Assurance (QA) responsibilities of the Contractor, subcontractors, suppliers and service providers related to this activity.

Section Prepared by: Signature:

9. Security

- Describe any special security arrangements required during the coating integrity monitoring process.

Section Prepared by: Signature:

10. Communication

- Describe the communication procedures with respect to:
 - Management instructions;
 - Subcontractors;
 - Awareness training; and
 - Inductions.

Section Prepared by: Signature:

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26

METHOD STATEMENTS:

H11: MATERIAL MANAGEMENT PLAN – BEDDING/SPOIL/BORROW PITS

Tendered Material Management Plan

The Tenderer shall submit with his Tender a material management plan indicating his planned approach to optimize the procurement, haulage and utilisation of bedding and borrow material and the efficient and cost-effective haulage and disposal to spoil of unsuitable and surplus excavated material. Such diagram shall be designated the "Tendered Material Management Plan" (TMMP).

The plan shall be submitted under the title "METHOD STATEMENT H11 – TENDERED MATERIAL MANAGEMENT PLAN" and shall be signed by the Tenderer in a title block which shall show, as a minimum, the Tenderer's name, a unique drawing number, a revision number and the date of issue.

The Tendered Material Management Plan shall be subject to amendment in discussions with the Employer prior to the date of the Letter of Acceptance. Inclusion of the Tendered Material Management Plan in the Contract does not declare it a contract document apart from a basis from which to develop the Contract Material Management Plan pursuant to Clauses 1.10.1 and 1.10.9 of the Specification.

The Contractor shall prepare the TMMP in a manner which ensures that borrow pits and spoil areas are utilised efficiently, that borrow pit materials are used effectively and the quantity of material hauled and borrow pit development is minimised.

The TMMP shall be based on the Tenderer's own comprehensive plan and resource usage. The Tenderer shall ensure that the TMMP meets the requirements of the Contract. The TMMP shall be aligned with geographic and geotechnical information provided in the Tender Document. The location of borrow pits and access routes thereto are fixed. The entire TMMP shall be suitable for future expansion and easy adjustment of quantities.

Method Statement

The Tenderer shall submit a preliminary Method Statement of his proposed methods to manage the material hauling planning and execution. Details to be included shall, as a minimum, be as listed below. This Method Statement is for evaluation purposes only and shall not be construed as approval by the Engineer. Following award of the Contract, the preliminary Method Statement shall be supplemented and elaborated to a fully detailed Method Statement pursuant to Clause 1.10.1.1 of the Specification. The detailed construction method statement shall comply with the requirements of Clause 1.10.9 of the Specification.

1. Short Description of Key Construction Management Process

- Material management planning.

2. Scope

Setting up a material management system; and

Manage and maintain the system for the duration of the Contract.

Section Prepared by: Signature:

3. Resources

- Provide an organogram depicting the management and execution of the work with respect to:
 Staff; and
 Systems and Equipment.
- Identify the manager responsible for the work integration management (CV to reflect the experience in this regard).

Section Prepared by: Signature:

4. Technical Integration

- Describe the management process.
- Describe how data is obtained and managed.
- Describe how output from the material management planning system will be used in the construction management process.
- Define the communication links with the internal planning process.
- Describe the risk management approach and contingency planning.

Section Prepared by: Signature:

5. Quality Assurance

- List specific Quality Assurance (QA) requirements applicable to Specification Sections relevant to this activity.

Section Prepared by: Signature:

6. Communication

- Describe the communication procedures with respect to:
 Management instructions; and
 Material management planning.

Section Prepared by: Signature:

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B26**METHOD STATEMENTS:****H12: PROPOSED METHODOLOGY**

The Tenderer shall submit a method statement (of between 2 000 and 2 500 words) responding to the Scope of Work and outlining and explaining the proposed approach / methodology to be employed for the construction of the Works and its various components. The method statement should articulate what value the Tenderer will add in achieving the stated objectives for the project.

The method statement must highlight the issues of importance, the critical factors for success or failure of achieving the Employer's objectives, and explain the technical approach the Tenderer will adopt to address them. The method statement must include a quality plan which outlines processes, procedures and associated resources, applied by whom and when, to meet the requirements and indicate how risks will be managed and what contribution can be made regarding value management. Particular attention should be given to the interfacing between the civil and mechanical works, the connection and integration of the works into the existing water treatment plant, to the requirement for achieving Practical Completion (as defined in Scope of Works) by the corresponding Due Completion Date, and accommodating local subcontractors to achieve the required targeted labour contract participation goal (CPG).

The Tenderer shall include his / her method statement in the Functionality Criteria file of T1.3: Tender Data. The method statement must not be longer than 8 pages.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

SCHEDULE B27

TECHNICAL DETAIL SHEETS

MECHANICAL TECHNICAL DATA SCHEDULE – PIPELINE

NOZZLE CHECK VALVE (Aur 7012)

Make: _____

Model: _____

Size (DN): _____

Body pressure rating (PN): _____

Mass (kg): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PIPELINE

BUTTERFLY VALVE WITH ECCENTRIC DISC (Aur 7014)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is listed on the form in the contract document for listing deviations from specification.

NOTE TWO: Equipment shall have a successful record of use locally; shall have had at least three years of technical support locally; service and spares shall currently be available.

Make, model and type: _____

Body pressure rating (PN): _____

Size (DN): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PIPELINE

AIR VALVE (DWS 2510.03)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is entered on the tender form for listing deviations.

NOTE TWO: Equipment shall have a successful record of use locally. Equipment shall have had at least three years of technical support locally. Service and spares shall currently be available.

Make and model: _____

Type and design: _____

Rated Pressure (m): _____

Size (DN): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PIPELINE

METAL SEATED WEDGE GATE VALVE (DWS 2510.03)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is listed on the form in the contract document for listing deviations from specification.

NOTE TWO: Equipment shall have a successful record of use locally; shall have had at least three years of technical support locally; service and spares shall currently be available.

Make and model: _____

Size (DN): _____

Body Pressure Rating (PN): _____

Face to face dimension (mm): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PIPELINE
BUTTERFLY VALVE WITH ECCENTRIC DISC (DWS 2510.04)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is listed on the form in the contract document for listing deviations from specification.

NOTE TWO: Equipment shall have a successful record of use locally; shall have had at least three years of technical support locally; service and spares shall currently be available.

Make, model and type: _____

Body pressure rating (PN): _____

Size (DN): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

MULTI-STAGE (Aur 10 010)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is entered on the tender form for listing deviations.

NOTE TWO: Equipment shall have a successful record of use locally. Equipment shall have had at least three years of technical support locally. Service and spares shall currently be available.

Make: _____

Model and type: _____

GUARANTEED PUMP PERFORMANCE FOR TESTING IN ACCORDANCE WITH ISO 9906, Grade 1

NPSH: _____

Head (m): _____

Flow (litres per second): _____

Speed: _____

Power required: _____

Efficiency: _____

Other: _____

Mass: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

VENTILATION SYSTEM (Aur 10 014)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is entered on the tender form for listing deviations.

NOTE TWO: Equipment shall have a successful record of use locally. Equipment shall have had at least three years of technical support locally. Service and spares shall currently be available.

FAN

Make and model: _____

Type: _____

Speed: _____

Motor rating: _____

FAN ATTENUATORS

Make and model: _____

Type: _____

DOUBLE ACOUSTIC LOUVRES

Make and model: _____

Type: _____

DAMPERS

Make and model: _____

Type: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

LIFTING EQUIPMENT (Aur 1003)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is entered on the tender form for listing deviations.

NOTE TWO: Equipment shall have a successful record of use locally. Equipment shall have had at least three years of technical support locally. Service and spares shall currently be available.

General

SWL [safe working load] (kg): _____

Maximum expected load for this application (kg): _____

Test Load (kg): _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

Structure

Grade of steel for structure: _____

Description of corrosion protection systems used: _____

Hoist

Make & model: _____

Type and design: _____

Factor of Safety for chain or cable: _____

Country of manufacture: _____

Crawl Trolley

Make & model: _____

Type and design: _____

Country of manufacture: _____

Spares address: _____

End Carriages

Make & model: _____

Type and design: _____

Country of manufacture: _____

Spares address: _____

Rails

Details of crane rail: _____

Rail connection detail: _____

Description of corrosion protection systems used: _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

NOZZLE CHECK VALVE (Aur 7012)

Make: _____

Model: _____

Size (DN): _____

Body pressure rating (PN): _____

Mass (kg): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

PIPE COUPLINGS/FLANGE ADAPTORS (Aur 7023)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is listed on the form in the contract document for listing deviations from specification.

NOTE TWO: Equipment shall have a successful record of use locally; shall have had at least three years of technical support locally; service and spares shall currently be available.

Make: _____

Model: _____

Size (DN): _____

Pressure rating (PN): _____

Material of body: _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

PLUNGER VALVE (Aur 7030)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is entered on the tender form for listing deviations.

NOTE TWO: Equipment shall have a successful record of use locally. Equipment shall have had at least three years of technical support locally. Service and spares shall currently be available.

Make: _____

Model: _____

Flange size (DN): _____

Pressure Rating (PN) _____

Mass (kg): _____

County of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

AIR VALVE (DWS 2510.03)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is entered on the tender form for listing deviations.

NOTE TWO: Equipment shall have a successful record of use locally. Equipment shall have had at least three years of technical support locally. Service and spares shall currently be available.

Make and model: _____

Type and design: _____

Rated Pressure (m): _____

Size (DN): _____

County of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

METAL SEATED WEDGE GATE VALVE (DWS 2510.03)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is listed on the form in the contract document for listing deviations from specification.

NOTE TWO: Equipment shall have a successful record of use locally; shall have had at least three years of technical support locally; service and spares shall currently be available.

Make and model: _____

Size (DN): _____

Body Pressure Rating (PN): _____

Face to face dimension (mm): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

MECHANICAL TECHNICAL DATA SCHEDULE – PUMP STATION

BUTTERFLY VALVE WITH ECCENTRIC DISC (DWS 2510.04)

NOTE ONE: Any deviation from the specified requirements which is entered below shall not be considered to be part of the tender unless it is listed on the form in the contract document for listing deviations from specification.

NOTE TWO: Equipment shall have a successful record of use locally; shall have had at least three years of technical support locally; service and spares shall currently be available.

Make, model and type: _____

Body pressure rating (PN): _____

Size (DN): _____

Country of manufacture: _____

Technical Support and Spares in RSA for three years before tender:-

Name: _____

Address: _____

Telephone no. _____

DATA SHEET No. DS-EE-0010**LV SWITCHGEAR AND CONTROLGEAR ASSEMBLIES - MOTOR CONTROL CENTRES**

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
	This data sheet is applicable to the following Motor Control Centres • MCC-PS			
1	GENERAL			
1.1	MCC Manufacturer			
1.2	Tested with Stated Deviations to SANS 1973-1	Yes/No	Yes	
1.3	Type Test Certificate Required	Yes / No	Yes	
1.4	Control Voltage	230V/ 24VDC		
1.5	Compartment type	Fixed pattern/ withdrawabl		
2	CONSTRUCTION REQUIREMENTS			
2.1	Steel Work Manufacturer			
2.2	Form of Internal Separation		3b/4a	
2.3	Material of Construction	2.00 Mild Steel/ Electro Galvanized/ Stainless Steel/ 3CR12	3CR12	
2.4	Ingress Protection (doors closed)	IP	44	
2.5	Method of Installation		Floor Standing	
2.6	Epoxy Powder Coated	Yes / No	Yes	
2.7	Colour of Assembly		Electric Orange	
2.8	Size of Panel	HxWxD	H <2100	
2.9	Spare Space Required	%	>=20	
2.10	Access	Back / Front / Side	Front & Rear	
2.11	Cable Entry	Top / Bottom	Bottom	
2.12	Doors / Removable Panels		Doors	
2.13	Door Locks	Yes / No	Yes	
2.14	Door Locks - Type		Square key	
2.15	Door Locks - Material		Stainless Steel 316	
2.16	Hinges	Yes / No	Yes	
2.17	Hinges - Type		Perano or	
2.18	Hinges - Material			
2.19	Stays at 95° Opening	Yes / No	Yes	
2.20	Incomer Section Required	Yes / No	Yes	
2.21	Essential Section Required	Yes / No	No	
2.22	UPS Section Required	Yes / No	No	
2.23	Corrosion protection		Epoxy coated	
2.24	Gland Plates		Not painted	
2.25	Estimated Weight	Kg		
3	ELECTRICAL COMPONENTS			
3.1	Busbars			
3.1.1	Material		Copper	
3.1.2	Tinned	Yes / No	No	
3.1.3	Current Density	A/mm ²	<2 as per type test	

DATA SHEET No. DS-EE-0010**LV SWITCHGEAR AND CONTROLGEAR ASSEMBLIES - MOTOR CONTROL CENTRES**

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
3.2	Air Circuit Breakers			
				N/A
3.2.1	Manufacturer			
3.2.2	Type		Withdrawable	
3.2.3	Model			
3.2.4	Rated Current	A	As per SLD	
3.2.5	Service short-circuit breaking capacity (Ics)	kA	As per SLD	
3.2.6	Overload release		Electronic	
3.2.7	Short-circuit release		Electronic	
3.2.8	Motorised	Yes / No		
3.3	Moulded Case Circuit Breakers			
3.3.1	Manufacturer			
3.3.2	Type		Fixed	
3.3.3	Model			
3.3.4	Rated Current	A	As per SLD	
3.3.5	Service short-circuit breaking capacity (Ics)	kA	As per SLD	
3.3.6	Overload release		Thermal/ electronic	
3.3.7	Short-circuit release		Magnetic/ electronic	
3.4	Miniature Circuit Breakers			
3.4.1	Manufacturer			
3.4.2	Type			
3.4.3	Model			
3.4.4	Rated current	A		
3.4.5	Service Short-circuit breaking capacity (Ics)	KA		
3.4.6	Tripping Curve		C or as per SLD	
3.5	Fuse Switch-Disconnecter			
3.5.1	Manufacturer			
3.5.2	Model			
3.6	High Rupture Capacity (HRC) Fuse Links			
3.6.1	Manufacturer			
3.6.2	Model			
3.7	Surge Arrestors			
3.7.1	Power Circuits - Manufacturer			
3.7.2	Power Circuits - Model			
3.7.3	Power Circuits - Rating	kA		
3.7.4	Remote Indication	Yes / No	Yes	
3.7.5	Control Circuits - Manufacturer			
3.7.6	Control Circuits - Model			
3.7.7	Remote Indication	Yes / No		
3.7.3	Instrument Power Supply Circuits - Manufacturer			
3.7.4	Instrument Power Supply Circuits - Model			
3.7.5	Instrument Signal Loop - Manufacturer			
3.7.6	Instrument Signal Loop Circuits - Model			
3.7.7	Instrument Transducer Loop - Manufacturer			
3.7.8	Instrument Transducer Loop Circuits - Model			
3.8	Contactors			

DATA SHEET No. DS-EE-0010**LV SWITCHGEAR AND CONTROLGEAR ASSEMBLIES - MOTOR CONTROL CENTRES**

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
3.8.1	Manufacturer			
3.8.2	Model			
3.8.3	Contactor rating		AC3	
3.8.4	Coordination		Type 2	
3.9	Overload Relays			
3.9.1	Manufacturer			
3.9.2	Type			
3.9.3	Model			
3.9.4	Rated Current	A		
3.9.5	Resetable from front of MCC	Yes / No	Yes	
3.9.6	HMI	Yes / No	No	
3.10	Miniature Relays			
3.10.1	Manufacturer			
3.10.2	Model			
3.11	Control switches and pushbuttons			
3.11.1	Manufacturer			
3.11.2	Model			
3.12	Indicating Lamps			
3.12.1	Manufacturer			
3.12.2	Model			
3.12.3	Type		LED	
3.13	Power Meter for Incomer(s)			
3.13.1	Manufacturer			
3.13.2	Model			
3.13.3	Communication Protocol		Ethernet	
3.13.4	Harmonics Measurement	Yes / No		
3.13.6	Time of use measurement	Yes / No		
3.13.7	Bi-directional	Yes / No		
3.13.8	Datasheet provided with tender	Yes / No		
3.13.9	Data logging functionality	Yes / No		
3.14	Control-Circuit and auxiliary supply transformer			
3.14.1	Manufacturer			
4	FIELD E-STOP/START CONTROL STATIONS			
4.1	Method of Installation		Pedestal	
4.2	Material of Construction		3CR12	
4.3	Manufacturer			
4.4	Height above final ground level	mm	1100	
4.5	Keyswitch Required	Yes / No	No	
4.6	Canopy required			
4.7	IP rating	IP	65	
5	SUPPLEMENTARY DETAILS			

DATA SHEET No. DS-EE-0010

LV SWITCHGEAR AND CONTROLGEAR ASSEMBLIES - MOTOR CONTROL CENTRES

	DESCRIPTION	UNIT	SPECIFIED	OFFERED

Regardless of any information provided in this technical detail sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ Signature: _____.

DATA SHEET No. DS-EE-0010S
DISTRIBUTION BOARDS AND KIOSKS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	OPERATING ENVIRONMENT			
1.1	Inland / Coastal		As per Specification	
1.2	Indoor / Outdoor			
1.3	Site Conditions - Altitude	<i>m</i>		
1.4	Site Conditions - Min. / Max Ambient Temp.	<i>°C / °C</i>		
1.5	Site Conditions - Max. Relative Humidity	<i>%</i>		
2	ELECTRICAL CHARACTERISTICS			
2.1	Supply Voltage	<i>V</i>	400	
2.2	Frequency	<i>Hz</i>	50	
2.3	DB Main Busbar Rating	<i>A</i>	As per SLDs	
2.4	Fault Level Rating	<i>kA</i>	As per SLDs	
2.5	Number of Phases	<i>Num</i>	3	
2.6	Cascading Allowed	<i>Yes / No</i>	No	
2.7	Control Voltage	<i>V</i>	230	
2.8	Supplied From		Various	
2.9	Upstream Supply size	<i>kVA</i>	Various	
2.10	Estimated Load (After Diversification)	<i>kVA</i>	Various	
2.11	Earthing	<i>Earth Stud</i>	Earth Bar	
2.12	Neutral	<i>Full / Half</i>	Full Neutral	
3	DISTRIBUTION BOARDS			
3.1	Manufacturer			
3.2	Type			
3.3	Details		See Single Line drawings	
3.4	SABS approved	<i>Yes/No</i>	Yes	
4	COMPONENTS			
4.1	Busbars			
4.1.1	Material		Copper	
4.1.2	Tinned	<i>Yes / No</i>	Yes	
4.1.3	Current Density	<i>A/mm²</i>	2	
4.2	Moulded Case Circuit Breakers			
4.2.1	Manufacturer			
4.2.2	Type		Fixed	
4.2.3	Model			
4.2.4	Rated Current	<i>A</i>	As per SLD	
4.2.5	Service short-circuit breaking capacity (Ics)	<i>kA</i>		
4.2.6	Overload release		Thermal/ electronic	
4.2.7	Short-circuit release		Magnetic/ electronic	
4.3	Miniature Circuit Breakers			
4.3.1	Manufacturer			
4.3.2	Type			
4.3.3	Model			
4.3.4	Rated Current	<i>A</i>		
4.3.5	Service short-circuit breaking capacity (Ics)	<i>kA</i>		

DATA SHEET No. DS-EE-0010S

DISTRIBUTION BOARDS AND KIOSKS

[illegible]

Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ Signature: _____

DATA SHEET No. DS-EE-0011

LV CABLES AND CABLE SUPPORTS

[illegible]

Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ **Signature:** _____

Name (Print): _____ Signature: _____

DATA SHEET No. DS-EE-0013
SMALL POWER AND LIGHTING

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	POWER OUTLETS			
1.1	Normal Switched Socket Outlets			
1.1.1	Manufacturer			
1.1.2	Type			
1.1.3	Ingress Protection	IP	43/65	
1.1.4	Faceplate Colour		White	
1.1.5	Mounting	Flush/recessed in power skirting	Various	
1.1.6	SABS approved	Yes / No	Yes	
1.2	Industrial Switched Socket Outlets			
1.2.1	Manufacturer			
1.2.2	Type			
1.2.3	Ingress Protection	IP	55	
1.2.4	Faceplate Colour		White	
1.2.5	Mounting	Flush/recessed in power skirting	Various	
1.2.6	SABS approved	Yes / No	Yes	
1.3	3 Phase Industrial Switched Socket Outlets			
1.3.1	Manufacturer			
1.3.2	Type			
1.3.3	Ingress Protection	IP	55	
1.3.4	Mounting	Flush/recessed in power skirting	Flush	
1.3.5	SABS approved	Yes / No	Yes	
1.4	Normal Dedicated Switched Socket Outlets			
1.4.1	Manufacturer			
1.4.2	Type			
1.4.3	Ingress Protection	IP		
1.4.4	Faceplate Colour		Red	
1.4.5	Mounting	Flush/recessed in power skirting	Various	
1.4.6	SABS approved	Yes / No	Yes	
2	ISOLATORS			
2.1	Double Pole			
2.1.1	Manufacturer			
2.1.2	Type			
2.1.3	Ingress Protection	IP	65	
2.1.4	Mounting		Flush	
2.1.5	SABS approved	Yes / No	Yes	
2.2	3 Pole			
2.2.1	Manufacturer			
2.2.2	Type			

DATA SHEET No. DS-EE-0013
SMALL POWER AND LIGHTING

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
2.2.3	Ingress Protection	IP	65	
2.2.4	Mounting		Flush	
2.2.5	SABS approved	Yes / No	Yes	
3	TELEPHONE AND DATA OUTLETS			
3.1	Manufacturer			
3.2	Type		RJ45/RJ11 combo	
3.3	Colour		White	
3.4	Mounting	Flush/reces sed in power skirting	Various	
3.5	SABS approved	Yes / No	Yes	
4	LIGHTING (FOR LUMINAIRES SEE E07)			
4.1	Photocell (Day/Night Switch) Mounted outside building			
4.1.1	Manufacturer			
4.1.2	Model			
4.1.3	SABS approved	Yes / No	Yes	
4.2	Lighting Ballast			
4.2.1	Manufacturer			
4.2.2	Type			
4.2.3	Details			
4.2.4	SABS approved	Yes/No	Yes	
4.3	Light Switches			
4.3.1	Colour		White	
4.3.2	Flush mounted	Yes/No	Yes	
4.3.3	Manufacturer			
4.3.4	Type			
4.4	GRP Poles			
4.4.1	Manufacturer /Supplier			
4.4.2	Height		Various, Refer to drawings	
5	SINGLE CORE PVC INSULATED CABLE			
5.1	Manufacturer			
5.2	Type			
6	HOUSE WIRE			
6.1	Manufacturer			
6.2	Type			
7	WIREMESH CABLE TRAY			
7.1	Manufacturer / Type			
7.2	Details			
8	CABLE TRAY			
8.1	Manufacturer / Type			
8.2	Details			




DATA SHEET No. DS-EE-0013
SMALL POWER AND LIGHTING

[illegible]

Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ Signature: _____.

DATA SHEET No. DS-EE-0014A**LIGHTING SCHEDULE**

Luminaire / Device Type:	Image:	Interior or Exterior	Location	Description	Supplier / Manufacturer:	Product Name / Code:	Lamp Type:	Mounting Method
A		Interior	In the pump station building as per drawings	LED Tube vapourproof fitting	BEKA Schröder, similar or equivalent	BEKA LED VLN	65W	Various, as per drawings
B		Exterior	Outside the pump station building as per drawings	LED Bulkhead fitting	BEKA Schröder, similar or equivalent	BEKA LED Bulkhead	18W	Wall mounted
FL		Interior	Walkway angled to illuminate the pump motors	LED Floodlight	BEKA Schröder, similar or equivalent	BEKA LEDflood Midi	108W	Wall mounted

DATA SHEET No. DS-EE-0026
ELECTRICAL ACTUATORS

[illegible]

Regardless of any information provided in this technical detail sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ **Signature:** _____

DATA SHEET No. DS-EL-0003
INTRUDER DETECTION

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	SYSTEM REQUIREMENTS FOR INTRUDER DETECTION			
1.1	Manufacturer			
1.2	Integration with existing intruder detection system	Yes/No	Yes	
1.3	Integration with CCTV	Yes/No	Yes	
2	MAIN CONTROLLER			
2.1	Manufacturer/Supplier			
2.2	Type			
2.3	Model			
2.4	Number of events that can be retained	Num	2500	
2.5	Monitoring and alert	Yes/No	Yes	
2.6	Number of Zones	Num		
2.7	Minimum number of arming modes	Num	3	
2.8	Voltage	V	230	
2.9	Battery back up	Yes/No	Yes	
2.10	Back-up period	hr	24	
2.11	Standalone logic operation	Yes/No	Yes	
3	SOFTWARE			
3.1	Name			
3.2	Model			
3.3	Spare Licences	%	20 % Spare	
4	OPERATOR STATION COMPUTER			
4.1	Manufacturer			
4.2	Model			
4.3	CPU		I5 or better	
4.4	Type			
4.5	Speed	GHz		
4.6	RAM	GB	8GB	
4.7	Hard Drive Storage	GB		
4.8	Communication Ports	Num		
4.9	USB ports	Num		
4.10	Com 1 (Plug/Interface e.g. RJ 45/RS 485)			
4.11	Com 2			
4.12	Com 3			
4.13	Casing		Tower	
4.14	Operating System		Windows 8	
5	DOOR AND WINDOW CONTACTS			
5.1	Door Contacts			
5.1.1	Manufacturer			
5.1.2	Type			
5.2	Window Contacts			
5.2.1	Manufacturer			
5.2.2	Type			
6	PIR MOTION SENSORS			
6.1	Manufacturer/Supplier			
6.2	Type			
6.3	Range	m		
7	INTRUDER DETECTION KEYPAD			

DATA SHEET No. DS-EL-0003

INTRUDER DETECTION

[illegible]

Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ **Signature:** _____

DATA SHEET No. DS-EP-0002**MEDIUM VOLTAGE SWITCHGEAR - 11kV SWITCHBOARD**

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	GENERAL SYSTEM INFORMATION			
1.1	System Operating Voltage:	kV	11	
1.2	Maximum Fault Level:	kA	4kA	
1.3	Minimum Fault Level:	kA	2.7kA	
1.4	System Frequency:	Hz	50	
1.5	System earthing:		NECRT	
1.6	Phase Rotation:		Anti-Clockwise RWB	
2	SWITCHBOARD RATING DATA			
2.1	Rated Voltage:	kV	12	
2.2	Rated Lightning Impulse Withstand Voltage (BIL):	kV	95	
2.3	Rated Short Time Power-Frequency Withstand Voltage:	kV	28	
2.4	Rated Frequency:	Hz	50	
2.5	Rated Continuous Main Busbar Current:	A	630	
2.6	Rated Short-Time Withstand Current:	kA	25	
2.7	Rated Short-Time Current Duration:	s	3	
2.8	Rated Peak Withstand Current	kA	63	
2.9	Rated Internal Arc Classification:		AFLR	
2.10	Internal Arc Withstand Capability	kA	25	
2.11	Internal Arc Withstand Duration	s	1	
2.12	Partition Class		PM	
2.13	Loss of Service Continuity - Cable Compartment		LSC2B	
2.14	Electrical Endurance Class of Circuit Breaker		E2	
2.15	Mechanical Endurance Class of Circuit Breaker		M1 (M2 for motor starter CBs)	
2.16	Electrical Endurance Class of Switch-Disconnectors		E2	
2.21	Mechanical Endurance of Motor Starter CBs	No. of operations	>=10000	
2.22	Electrical Endurance Class of Earthing Switches		E1	
3	SWITCHBOARD CONSTRUCTION DATA			
3.1	Degree of Protection:	IP	4X	
3.2	Busbar Arrangement:		Single	
3.3	Floor Frame	Yes/No	Yes	
3.4	Painting:		Powder Coated	
3.5	Total Number of Switchgear Panels:		12	
3.6	Gas Exhaust Ducts Required:	Yes/No	Yes	
3.7	Colour:		Grey	
3.8	Number of Voltage Transformers:		1 per Incomer	
3.9	Switchboard air-or gas-insulated		Air	
3.10	LV Compartment door and cable box removeable cover colour:		Grey	
3.11	MV Cable Entry	Top/Bottom	Bottom	
3.12	Control Cable Entry	Top/Bottom	Bottom	
4	PANEL TYPE NO. 1			
4.1	GENERAL			
4.1.1	Panel Function:		Mains Incomers	
4.1.2	Panel Name:		Incomer 1 & 2	
4.1.3	Panel No.:		1&11	
4.1.4	Number of Type Panels:		2	
4.1.5	Panel Type:		Circuit Breaker	
4.1.6	Rated current:	A	630	

4.1.7	Panel Dimension: W/D/H (mm)			
4.1.8	MV Cable Entry / Bus Duct Entry:		Bottom	
4.1.9	MV Cable Size:		3C 95 mm ² Cu XLPE	
4.1.10	Control Cable Entry:		Bottom	
4.2	SWITCHGEAR DATA			
4.2.1	CB/SD Make:			
4.2.2	CB/SD Model:			
4.2.3	CB Interrupting medium:		Vacuum	
4.2.4	Electric Motor Charging		Yes	
4.2.5	CB/Switch-disconnector/Disconnecter Rated Voltage:	kV	12	
4.2.6	CB/Switch-disconnector/Disconnecter Rated BIL:	kV	95	
4.2.7	CB/Switch-disconnector/Disconnecter Rated Current:	A	630	
4.2.8	Electric Motor Charging		Yes	
4.2.9	Electric Motor Racking		No	
4.2.10	Earth Switch Location:		Cable side	
4.3	SWITCHGEAR AUXILIARY EQUIPMENT DATA			
4.3.1	Closing Coil Voltage:	V	110 V DC	
4.3.2	Main Shunt Trip Coils Voltage:	V	110 V DC	
4.3.3	Backup Shunt Trip Coil Voltage:	V	110 V DC	
4.3.4	Under Voltage Release Coil Voltage:	Yes/No	Yes	
4.3.5	Close Blocking Magnet Voltage:			
4.3.6	Racking Blocking Magnet Voltage:			
4.3.7	Anti Pumping:	Yes/No	Yes	
4.3.8	Operation Counter:	Yes/No	Yes	
4.3.9	Spring Charge Motor Voltage:	V	110 V DC	
4.3.10	Electrical Racking Motor Voltage:			
4.3.11	Auxiliary Voltage Supply: (Heater, Light)	V	230V AC	
4.3.12	Mechanical Trip / Close Pushbutton:		Trip - Yes Close- Blank off	
4.3.13	Spring Charged Auxiliary Contacts:	Yes/No	Yes	
4.3.14	CB/Switch-Disconnecter/Disconnecter Status Auxiliary Contacts:	Yes/No	Yes	
4.3.15	CB/Switch-Disconnecter/Disconnecter Service Auxiliary Contacts:	Yes/No	Yes	
4.3.16	CB/Switch-Disconnecter/Disconnecter Test Auxiliary Contacts:	Yes/No	Yes	
4.3.17	Earth Switch Status Auxiliary Contacts:	Yes/No	Yes	
4.3.18	AC/DC Control Circuit Terminals:	Yes/No	Yes	
4.3.19	Bus wiring Terminals	Yes/No	Yes	
4.3.20	VT Test Blocks/ Terminals:	Yes/No	Yes	
4.3.21	CT Test Blocks/ Terminals:	Yes/No	Yes	
4.3.22	VT Secondary Wiring:		Colour Coded 1.5mm ²	
4.3.23	CT Secondary Wiring:		Colour Coded 2.5mm ²	
4.4	ADDITIONAL EQUIPMENT			
4.4.1	Surge Arrestor/ Suppressor Make:		On Busbar	
4.4.2	Surge Arrestor Type:			
4.4.3	Anti Condensation Space Heater:With Thermostat	Yes/No	Yes	
4.4.4	LV Compartment Light:	Yes/No	Yes	
4.4.4	Busbar Protection System:		Arc Sensors with Current Supervision	
4.4.5	TNC Switch:	Yes/No	Yes	
4.4.6	Local/ Remote Switch:	Yes/No	Yes	
4.4.7	Mimic Diagram:	Yes/No	Yes	
4.4.8	Voltmeter with Selector Switch	Yes/No	Yes	
4.4.9	Ammeter	Yes/No	Yes	

4.4.10	Power meter		Schneider Power Logic PM870 or approved equivalent	
4.4.11	Selector Switch for Pendant/Remote	Yes/No	Yes	
4.4.11	SF6 Pressure switch extended to RTU	Yes/No	No	
4.4.12	Pendant Socket with 10m pendant cord with open/close push button	Yes/No	Yes	
4.5	VOLTAGE TRANSFORMERS			
4.5.1	Manufacturer:			
4.5.2	Type (inductive/electronic):		Inductive	
4.5.3	Connection Location:		Cable side	
4.5.4	Withdrawable / Fixed:		Withdrawable	
4.5.5	Residual Voltage Winding Required:		No	
4.5.6	Rated Output		As indicated on SLD	
4.5.7	Rated Secondary Voltage:			
4.5.8	Rated Voltage Residual Voltage Winding:			
4.5.9	Class:			
4.5.10	Voltage Factor:		1.2 continuous/1.9 for 20 seconds	
4.5.11	Damping Resistor:		No	
4.5.12	Primary Fuses:		No	
4.5.13	VT Truck Racking Position Signal Contacts:		No	
4.6	CURRENT TRANSFORMERS			
4.6.1	Purpose:		Protection	
4.6.2	Manufacturer:			
4.6.3	Type (inductive/electronic):		Inductive	
4.6.4	Function:		OCEF	
4.6.5	Accuracy class:		As indicated on SLD	
4.6.6	Rated output:			
4.6.7	Accuracy Limit Factor:			
4.6.8	Security Factor:			
4.6.9	Ratio:			
4.6.10	Purpose:		Metering	
4.6.11	Type (inductive/electronic):		Inductive	
4.6.12	Function:		Ammeters & Power Meter	
4.6.13	Accuracy class:		As indicated on SLD	
4.6.14	Rated output:			
4.6.15	Accuracy Limit Factor:			
4.6.16	Security Factor:			
4.6.17	Ratio:			
4.7	PROTECTION RELAYS			
4.7.1	Relay Make:			
4.7.2	Relay Model:			
4.7.3	Function:		OCEF and current diff	
4.7.4	Relay Make:			
4.7.5	Relay Model:			
4.7.6	Function:		Arc protection	
4.7.7	Relay Make:			
4.7.8	Relay Model:			
4.7.9	Function:			
4.8	TESTING			
4.8.1	Type Test Certificates to be submitted	Yes/No	Yes	

4.8.2	Routine Test Certificate to be submitted	Yes/No	Yes	
4.8.3	Location of Routine Test Certificate			
4.9	SUPPLEMENTARY INFORMATION			
5	PANEL TYPE NO. 2			
5.1	GENERAL			
5.1.1	Panel Function:		Feeders	
5.1.2	Panel Name:		WTW feede, Trf Feeder 1&2	
5.1.3	Panel No.:		2,3,10	
5.1.4	Number of Type Panels:		4	
5.1.5	Panel Type:		Circuit Breaker	
5.1.6	Rated current:	A	630	
5.1.7	Panel Dimension: W/D/H (mm)			
5.1.8	MV Cable Entry / Bus Duct Entry:		Bottom	
5.1.9	MV Cable Size:		3C 35 mm ² Cu XLPE	
5.1.10	Control Cable Entry:		Bottom	
5.2	SWITCHGEAR DATA			
5.2.1	CB/SD Make:			
5.2.2	CB/SD Model:			
5.2.3	CB Interrupting medium:		Vacuum	
5.2.4	CB Operating Mechanism		Stored energy	
5.2.5	Electric Motor Charging		Yes	
5.2.6	Electric Motor Racking		No	
5.2.7	Earth Switch Location:		Cable side	
5.3	SWITCHGEAR AUXILIARY EQUIPMENT DATA			
5.3.1	Closing Coil Voltage:	V	110 V DC	
5.3.2	Shunt Trip Coils Voltage:	V	110 V DC	
5.3.3	Additional Shunt Trip Coil Voltage:		N/A	
5.3.4	Under Voltage Release:		No	
5.3.5	Operation Counter:		Yes	
5.3.6	Spring Charge Motor Voltage:	V	110 V DC	
5.3.7	Electrical Racking Motor Voltage:		N/A	
5.3.8	Auxiliary Voltage Supply: (Heater, Light)	V	230V AC	
5.3.9	Mechanical Trip / Close Pushbutton:		Trip - Yes Close- Blank off	
5.3.10	Spring Charged Auxiliary Contacts:		Yes	
5.3.11	CB/Disconnecter Status Auxiliary Contacts:		Yes	
5.3.12	CB/Disconnecter Position Auxiliary Contacts:		Yes	
5.3.13	Earth Switch Status Auxiliary Contacts:		Yes	
5.4	ADDITIONAL EQUIPMENT			
5.4.1	Surge Arrestor/ Suppressor Make (Only for WTW1 & 2 Feeders):			
5.4.2	Surge Arrestor Type:			
5.4.3	Anti Condensation Space Heater:With Thermostat		Yes	
5.4.4	LV Compartment Light:		Yes	
5.4.5	TNC Switch:		Yes	
5.4.6	Local/ Remote Switch:		Yes	
5.4.7	Mimic Diagram:		Yes	
5.4.8	Voltmeter with Selector Switch		No	
5.4.9	Ammeter		Yes	
5.4.10	Power meter		No	
5.4.11	Selector Switch for Pendant/Remote		Yes	
5.4.12	Pendant Socket with 10m pendant cord with open/close push button		Yes	
5.5	VOLTAGE TRANSFORMERS			N/A

5.5.1	Type (inductive/electronic):			
5.5.2	Connection Location:			
5.5.3	Withdrawable / Fixed:			
5.5.4	Residual Voltage Winding Required:			
5.5.5	Rated Output			
5.5.6	Rated Secondary Voltage:			
5.5.7	Rated Voltage Residual Voltage Winding:			
5.5.8	Class:			
5.5.9	Voltage Factor:			
5.5.10	Manufacturer:			
5.6	CURRENT TRANSFORMERS			
5.6.1	Purpose:		Protection	
5.6.2	Type (inductive/electronic):		Inductive	
5.6.3	Function:		OCEF	
5.6.4	Accuracy class:		As indicated on SLD	
5.6.5	Rated output:			
5.6.6	Accuracy Limit Factor:			
5.6.7	Security Factor:			
5.6.8	Ratio:			
5.6.9	Purpose:		Metering	
5.6.10	Type (inductive/electronic):		Inductive	
5.6.11	Function:		Ammeter	
5.6.12	Accuracy class:		As indicated on SLD	
5.6.13	Rated output:			
5.6.14	Accuracy Limit Factor:			
5.6.15	Security Factor:			
5.6.16	Ratio:			
5.6.17	Manufacturer:			
5.7	PROTECTION RELAYS			

5.7.1	Relay Make:			
5.7.2	Relay Model:			
5.7.3	Function:		OCEF	
5.7.4	Relay Make:			
5.7.5	Relay Model:			
5.7.6	Function:			
5.7.7	Relay Make:			
5.7.8	Relay Model:			
5.7.9	Function:			
5.8	TESTING			
4.8.1	Type Test Certificates to be submitted	Yes/No	Yes	
4.8.2	Routine Test Certificate to be submitted	Yes/No	Yes	
4.8.3	Location of Routine Test Certificate			
5.9	SUPPLEMENTARY INFORMATION			
6	PANEL TYPE NO. 3			
6.1	GENERAL			
6.1.1	Panel Function:		Bus section & Riser	
6.1.2	Panel Name:		Bus section & Riser	
6.1.3	Panel No.:		6 & 7	
6.1.4	Number of Type Panels:		1	
6.1.5	Panel Type:		Circuit Breaker & Riser	
6.1.6	Rated current:	A	630	
6.1.7	Panel Dimension: W/D/H (mm)			
6.1.8	MV Cable Entry / Bus Duct Entry:			
6.1.9	MV Cable Size:			
6.1.10	Control Cable Entry:			
6.2	SWITCHGEAR DATA			
6.2.1	CB/SD Make:			
6.2.2	CB/SD Model:			
6.2.3	CB Interrupting medium:		Vacuum	
6.2.4	CB Operating Mechanism		Stored energy	
6.2.5	Electric Motor Charging		Yes	
6.2.6	Electric Motor Racking		No	
6.2.7	Earth Switch Location:			N/A
6.3	SWITCHGEAR AUXILIARY EQUIPMENT DATA			
6.3.1	Closing Coil Voltage:	V	110 V DC	
6.3.2	Shunt Trip Coils Voltage:	V	110 V DC	
6.3.3	Additional Shunt Trip Coil Voltage:		N/A	
6.3.4	Under Voltage Release:		No	
6.3.5	Operation Counter:		Yes	
6.3.6	Spring Charge Motor Voltage:	V	110 V DC	
6.3.7	Electrical Racking Motor Voltage:		N/A	
6.3.8	Auxiliary Voltage Supply: (Heater, Light)	V	230V AC	
6.3.9	Mechanical Trip / Close Pushbutton:		Trip - Yes Close- Blank off	
6.3.10	Spring Charged Auxiliary Contacts:		Yes	
6.3.11	CB/Disconnecter Status Auxiliary Contacts:		Yes	
6.3.12	CB/Disconnecter Position Auxiliary Contacts:		Yes	
6.3.13	Earth Switch Status Auxiliary Contacts:		Yes	
6.4	ADDITIONAL EQUIPMENT			

6.4.1	Surge Arrestor/ Suppressor Make:			N/A
6.4.2	Surge Arrestor Type:			
6.4.3	Anti Condensation Space Heater:With Thermostat		Yes	
6.4.4	LV Compartment Light:		Yes	
6.4.5	TNC Switch:		Yes	
6.4.6	Local/ Remote Switch:		Yes	
6.4.7	Mimic Diagram:		Yes	

6.4.8	Voltmeter with Selector Switch		No	
6.4.9	Ammeter		No	
6.4.10	Power meter		No	
6.4.11	Selector Switch for Pendant/Remote		Yes	
6.4.12	Pendant Socket with 10m pendant cord with open/close push button		Yes	
6.5	VOLTAGE TRANSFORMERS		N/A	
6.6	CURRENT TRANSFORMERS		N/A	
6.7	PROTECTION RELAYS		N/A	
6.8	SUPPLEMENTARY INFORMATION			
7	PANEL TYPE NO. 4			
7.1	GENERAL			
7.1.1	Panel Function:		Motor Starter	
7.1.2	Panel Name:		Pump 1 - 4	
7.1.3	Panel No.:		4,5,8,9	
7.1.4	Number of Type Panels:		4	
7.1.5	Panel Type:		Circuit Breaker	
7.1.6	Rated current:	A	630	
7.1.7	Panel Dimension: W/D/H (mm)			
7.1.8	MV Cable Entry / Bus Duct Entry:		Bottom	
7.1.9	MV Cable Size:		3C 35 mm ² Cu XLPE	
7.1.10	Control Cable Entry:		Bottom	
7.2	SWITCHGEAR DATA			
7.2.1	CB/SD Make:			
7.2.2	CB/SD Model:			
7.2.3	CB Interrupting medium:		Vacuum	
7.2.4	CB Operating Mechanism		Stored energy	
7.2.5	Electric Motor Charging		Yes	
7.2.6	Electric Motor Racking		No	
7.2.7	Earth Switch Location:		Cable side	
7.3	SWITCHGEAR AUXILIARY EQUIPMENT DATA			
7.3.1	Closing Coil Voltage:	V	110 V DC	
7.3.2	Shunt Trip Coils Voltage:	V	110 V DC	
7.3.3	Additional Shunt Trip Coil Voltage:		N/A	
7.3.4	Under Voltage Release:		No	
7.3.5	Operation Counter:		Yes	
7.3.6	Spring Charge Motor Voltage:	V	110 V DC	
7.3.7	Electrical Racking Motor Voltage:		N/A	
7.3.8	Auxiliary Voltage Supply: (Heater, Light)	V	230V AC	
7.3.9	Mechanical Trip / Close Pushbutton:		Trip - Yes Close- Blank off	
7.3.10	Spring Charged Auxiliary Contacts:		Yes	
7.3.11	CB/Disconnecter Status Auxiliary Contacts:		Yes	
7.3.12	CB/Disconnecter Position Auxiliary Contacts:		Yes	
7.3.13	Earth Switch Status Auxiliary Contacts:		Yes	
7.4	ADDITIONAL EQUIPMENT			
7.4.1	Surge Arrestor/ Suppressor Make):			N/A
7.4.2	Surge Arrestor Type:			
7.4.3	Anti Condensation Space Heater:With Thermostat		Yes	
7.4.4	LV Compartment Light:		Yes	
7.4.5	TNC Switch:		Yes	
7.4.6	Local/ Remote Switch:		Yes	
7.4.7	Mimic Diagram:		Yes	
7.4.8	Voltmeter with Selector Switch		No	

7.4.9	Ammeter		Yes	
7.4.10	Power meter		No	
7.4.11	Selector Switch for Pendant/Remote		Yes	
7.4.12	Pendant Socket with 10m pendant cord with open/close push button		Yes	
7.5	VOLTAGE TRANSFORMERS			N/A

7.5.1	Type (inductive/electronic):			
7.5.2	Connection Location:			
7.5.3	Withdrawable / Fixed:			
7.5.4	Residual Voltage Winding Required:			
7.5.5	Rated Output			
7.5.6	Rated Secondary Voltage:			
7.5.7	Rated Voltage Residual Voltage Winding:			
7.5.8	Class:			
7.5.9	Voltage Factor:			
7.5.10	Manufacturer:			
7.6	CURRENT TRANSFORMERS			
7.6.1	Purpose:		Protection	
7.6.2	Type (inductive/electronic):		Inductive	
7.6.3	Function:		MPR	
7.6.4	Accuracy class:		As indicated on SLD	
7.6.5	Rated output:			
7.6.6	Accuracy Limit Factor:			
7.6.7	Security Factor:			
7.6.8	Ratio:			
7.6.9	Purpose:		Metering	
7.6.10	Type (inductive/electronic):		Inductive	
7.6.11	Function:		Ammeter	
7.6.12	Accuracy class:		As indicated on SLD	
7.6.13	Rated output:			
7.6.14	Accuracy Limit Factor:			
7.6.15	Security Factor:			
7.6.16	Ratio:			
7.6.17	Manufacturer:			
7.7	PROTECTION RELAYS			
7.7.1	Relay Make:			
7.7.2	Relay Model:			
7.7.3	Function:		MPR	
7.7.4	Relay Make:			
7.7.5	Relay Model:			
7.7.6	Function:			
7.7.7	Relay Make:			
7.7.8	Relay Model:			
7.7.9	Function:			
7.8	TESTING			
7.8.1	Type Test Certificates to be submitted	Yes/No	Yes	
7.8.2	Routine Test Certificate to be submitted	Yes/No	Yes	
7.8.3	Location of Routine Test Certificate			
7	PANEL TYPE NO. 5			
7.1	GENERAL			
7.1.1	Panel Function:		Marshalling, RTU	
7.1.2	Panel Name:		Control and Instrumentation Panel	
7.1.3	Panel No.:		12	
7.1.4	Number of Type Panels:		1	
7.1.5	Panel Type:		Circuit Breaker	
9	POWER FACTOR CORRECTION			

9.1	PFC Type		Per Motor	
9.2	Controller Manufacturer:			N/A
9.3	Controller Model:			N/A
9.4	Capacitor Manufacturer			
9.5	Position:		Floor Mounted in cable gallery	
9.6	Withdraw / Fixed:		Withdrawable	
9.8	Number of steps	No		
9.9	Capacity per step	kVAR		
10	MV CONTROL PANEL (IN LV ROOM)			
10.1	Manufacturer			
10.2	Material of Construction: 1.6mm Mild Steel / 2.0mm Mild Steel / Electro Galvanized / Stainless Steel / 3CR12 / Fibre Glass		3CR12	
10.3	Epoxy Powder Coated	Yes / No	Yes	
10.4	Colour		Electric Orange	
10.5	IP Rating (Indoor)	IP	54	
11	SUBSTATION RTU/GATEWAY			
11.1	Manufacturer			
11.2	Model			
11.3	Communication Protocol			
12	SUPPLEMENTARY INFORMATION			

Regardless of any information provided in this technical detail sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ Signature: _____.

DATA SHEET No. DS-EP-0004
BATTERY TRIPPING UNITS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
	This data sheet is applicable to the Battery Tripping Unit for the following MV Switchboards:			
	• 11kV Switchboard			
1	BATTERY TRIPPING UNIT			
1.1	Cabinet method of installation	<i>Wall or Floor</i>	Floor standing	
1.2	Minimum degree of protection in accordance with SANS 60529	<i>IP</i>	IP31	
1.3	Type of batteries		Ni-Cad	
1.4	Number of Cells	<i>No</i>		
1.5	Rating of batteries	<i>Ahr</i>	10	
1.6	Nominal Supply Voltage	<i>Vac</i>	230	
1.7	Nominal Output Voltage	<i>Vdc</i>	110	
1.8	Nominal rating of charger	<i>Ahr</i>	3	
1.9	Iron-type voltmeter	<i>Yes/No</i>	Yes	
1.10	Charger is EMC compliant	<i>Yes/No</i>	Yes	
1.11	Transformer with electrostatic shield between windings to provide isolation between mains and output	<i>Yes/No</i>	Yes	
2	CAPACITY OF THE BATTERY TRIPPING UNIT			
2.1	Battery Tripping Unit	<i>Ah</i>	(Minimum = quiescent load for 12 hrs + complete bus trip + 50%)	
2.2	Charger can power quiescent load and full bus trip with no batteries connected	<i>Yes/No</i>	Yes	
2.3	Batteries can be isolated from charger to allow battery maintenance	<i>Yes/No</i>	Yes	
2.4	Maximum charging time (to full capacity)	<i>hours</i>	8 hours	
2.5	Can charger automatically change over from trickle to boost charge	<i>Yes/No</i>	Yes	
2.6	Supply line protection device	<i>Circuit breaker or Fuse</i>	Circuit breaker	
2.7	Status monitoring: loss of supply, undervoltage, overvoltage, charge fail	<i>Yes/No</i>	Yes	
2.8	Interface for status monitoring by SCADA	<i>Yes/No</i>	Yes	
2.9	Interface protocol		Ethernet	
3	DC DISTRIBUTION BOARD			
3.1	Protection device type	<i>Circuit breaker or Fuse</i>	Circuit breakers	
3.2	Dedicated Circuit breaker to each MV panel	<i>Yes/No</i>	Yes	
3.3	Dedicated Circuit breaker to Bay Controller	<i>Yes/No</i>	Yes	
3.4	Spare space for additional circuit breakers	<i>%</i>	50	
3.5	Method of Installation: Floor standing / Wall mounted / Flush / Pedestal Mounted / Kiosk / Architrave / Over Trench / Surface Mounted		Floor Standing	
3.6	Material of Construction: 1.6mm Mild Steel / 2.0mm Mild Steel / Electro Galvanized / Stainless Steel / 3CR12 / Fibre Glass		2.0 mm Mild Steel Galvanised	
3.7	Epoxy Powder Coated	<i>Yes / No</i>	Yes	
3.8	Cable Entry	<i>Top / Bottom</i>	Bottom	

3.9	Colour of Assembly			
3.9.1	Panel		TBC	
3.9.2	Doors		TBC	
4	TESTING			
4.1	Routine Test	Yes/No	Yes	
4.1.1	Routine Test certificates to be submitted	Yes/No	Yes	
4.1.2	Location of Routine Test Facility (Country / City)			
5	SUPPLEMENTARY DETAILS			
Regardless of any information provided in this technical detail sheet, the equipment to be provided will comply with the specified requirements				
Name (Print): _____ Signature: _____				

DATA SHEET No. DS-EP-0008
MV ELECTRICAL MOTORS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	ELECTRICAL OPERATING CONDITIONS			
1.1	Supply voltage (nominal)	V	As per Specification	
1.2	Number of phases			
1.3	Frequency	Hz		
1.4	Voltage and frequency variations	%	As per SANS 1804-2	
1.5	Supply voltage harmonic voltage factor		As per SANS 60034-1	
1.6	Supply voltage negative sequence component	%	2	
1.7	Supply neutral earthed directly/resistively (high/low)		NECRT	
2	SITE OPERATING CONDITIONS			
2.1	Altitude a.s.l.	m	As per Specification	
2.2	Maximum ambient temperature	°C		
2.3	Minimum ambient temperature	°C		
3	MOTOR RATING			
3.1	Rated output	kW	as per Contractor's design	
3.2	Duty type		S1	
3.3	Output margin above load absorbed power	%		
3.4	Speed (synchronous)	rpm	1500	
3.5	Speed at rated output, voltage and frequency	rpm		
3.6	Rated voltage	V	11000	
3.7	Full load current	A		
3.8	Efficiency class (IE1/2/3)		IE2/3	
3.9	Rated torque	Nm		
4	ENCLOSURE, CONSTRUCTION & MOUNTING			
4.1	Ingress protection rating		IP55	
4.2	Cooling method		IC611	
4.3	Construction and mounting arrangement		IM 1001	
4.4	Terminal box location (R/B/L/T)		as per Contractor's design	
4.5	Cable entry location		Below	
4.6	Cable type and size		As per SLD	
4.7	Corrosion protection (standard/corrosive environment)		Corrosive	
5	WINDINGS TYPE, INSULATION & TEMPERATURE RISE			
5.1	Stator winding type (random/formed diamond coil)		Formed	
5.2	Insulation and impregnation system		VPI	
5.3	Insulation thermal class	(F/H)	F	
5.4	Temperature rise class	(B/F)	B	
5.5	Maximum temperature rise at rated output (Zone A supply)	K		
5.6	Maximum temperature rise at rated output (Zone C supply)	K		
5.7	Windings thermal protection (thermistor/PT100) per winding		PT100	
6	GENERAL PERFORMANCE			
6.1	Efficiency at rated output	%	>93%	

DATA SHEET No. DS-EP-0008
MV ELECTRICAL MOTORS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
6.2	Efficiency at rated 75% output	%		
6.3	Efficiency at rated 50% output	%		
6.4	Power factor at rated output	pu		
6.5	Power factor at 75% rated output	pu		
6.6	Power factor at 50% rated output	pu		
6.7	Sound power level at rated load	dBA		
6.8	Silencer required		Yes	
7	STARTING PERFORMANCE			
7.1	Starting method		DOL (CB)	
7.2	Motor moment of inertia	kg.m ²		
7.3	Number of starts per hour (cold/hot)		6/2	
7.4	Starting current (x full load current) (LRC)	A	<3.5	
7.5	Starting torque (x rated torque)	N m		
7.6	Pull-up torque (x rated torque)	N m		
7.7	Breakdown torque (x rated torque)	N m		
7.8	Starting power factor	pu		
7.9	Run up time of driven load (state pu starting current)	s		
8	DRIVEN LOAD AND COUPLING			
8.1	Load type		Centrifugal Pump	
8.2	Load moment of inertia at motor speed	kg.m ²		
8.3	Coupling method (direct/gearbox/v-belt)			
9	BEARINGS			
9.1	Manufacturer			
9.2	Lubrication	Oil/Grease	Oil	
9.3	DE bearing type (ball/roller/sleeve)		Sleeve preferred	
9.4	DE bearing lubrication type (sealed/regreasable)		regreasable	
9.5	DE bearing life (L10)	h		
9.6	DE bearing regrease interval	h		
9.7	NDE bearing type (ball/roller/sleeve)		Sleeve preferred	
9.8	NDE bearing lubrication type (sealed/regreasable)		regreasable	
9.9	NDE bearing life (L10)	h		
9.10	NDE bearing regrease interval	h		
9.11	Bearing thermal protection (thermistor/PT100)		PT100	
10	DIMENSIONS AND WEIGHT			
10.1	Motor frame number			
10.2	Motor weight	kg		
10.2	Colour		TBC	
11	VARIABLE SPEED APPLICATIONS			N/A
11.1	Operating speed range	rpm	As per load	
11.2	Maximum safe operating speed	rpm		
11.3	Peak voltage withstand level	V		
11.4	Voltage gradient withstand level	V/s		
11.5	Separately-powered cooling fan			
12	OPTIONAL ITEMS			
12.1	Anti-condensation heaters		Yes	
12.2	Slide rails (for v-belt drives)		No	
12.3	Surge protection devices		Yes, ZORC	

DATA SHEET No. DS-EP-0008
MV ELECTRICAL MOTORS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
12.3	Surge protection devices		<i>In terminal box</i>	
12.4	Adjusting bolts required		Yes	
13	FACTORY TESTS			
13.1	Routine tests in addition to SANS 1804-2 requirements			
13.1.1	Insulation resistance check		Yes	
13.1.2	Vibration velocity measurement		Yes	
13.2	Type tests in addition to SANS 1804-2 requirements			
13.2.1	Current vs speed curve		Yes	
13.2.2	Torque vs speed curve		Yes	
14	DRAWINGS/CURVES TO BE PROVIDED WITH TENDER			
14.1	Motor general arrangement with dimensions		Yes	
14.2	Main terminal box with fault rating indicated		Yes	
14.3	Current vs speed curve		Yes	
14.4	Torque vs speed curve		Yes	

Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ **Signature:** _____

DATA SHEET No. DS-EP-0021
DISTRIBUTION TRANSFORMERS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
	<u>This data sheet is applicable to the following Transformers:</u> • Pump Station Transformer 1 & 2			
1	GENERAL			
1.1	Manufacturer			
1.2	Country of Origin			
1.3	Transformer Type(Oil/ Dry Type)	Oil / Dry Type	Oil-Type	
1.4	Location, is the transformer to be located Indoors or Outdoors		Outdoors under roof	
1.5	Transformer Rating			
1.5.1	Rated Power	kVA	2 x 100	
1.5.2	Continuous Overload Capacity as per IEC	%	10	
1.5.3	Cooling (ONON/ANAN)	ONAN / ONAF	ONAN	
1.5.4	Temperature rise: top oil/winding res	°C	55/60	
1.5.5	Ambient temperature: average/max	°C	35/40	
1.5.6	Impedance	%		
1.5.7	Number of Phases		3	
1.5.8	Rated Frequency	Hz	50	
1.5.9	Vector Group		Dyn11	
1.6	Voltages			
1.6.1	Primary Voltage	kV	11	
1.6.2	Secondary Voltage	kV	420	
1.6.3	No Load Voltage Ratio		11/0.420	
1.7	Losses			
1.7.1	No-load Losses	W		
1.7.2	Full load Losses	W		
1.8	Tapping Method			
1.8.1	Number of Taps	No	5	
1.8.2	Tapping Range	%	0±2.5; ±5	
1.8.3	Switch or Bolted Links	Off-Load	Switch	
1.9	Insulation Level (LIWV)			
1.9.1	Medium Voltage	kV	95	
1.9.2	Low Voltage	kV	25	
1.10	Winding material (Cu/Al)		Cu	
2	CONSTRUCTION AND FITTINGS			
2.1	Tank type	Sealed / Free-Breathing	Sealed	
2.2	Tank cover of transformer to be bolted or welded	Bolted / Welded	Welded	
2.3	Conservator	Yes/No	No	
2.4	Pressure-relief device	Yes/No	Yes	
2.5	Dehydrating breather (Silica gel)	Yes/No	No	
2.6	Oil-level guage	Yes/No	Yes	
2.7	Oil-filling pipe	Yes/No	Yes	
2.8	Drain valve	Yes/No	Yes	
2.9	Underbase	Flat/Skid	Flat	
2.10	Fixing Holes	Yes/No	No	
2.11	Mounting Holes	Yes/No	Yes	
2.12	Jacking Pads	Yes/No	No	
2.13	Lifting Lugs	Yes/No	Yes	
2.14	Wheels and axles	Yes/No	No	
2.15	Corrosive Environment		Medium	
2.16	Gas and Oil actuated relay	Yes/No	No	
2.17	Thermometer Pockets	Yes/No	No	
2.18	Dial thermometer with max indicator	Yes/No	No	
2.19	Thermometer contacts for alarm and trip	Yes/No	No	

2.20	Malthoid strip between platform and transformer	Yes/No	Yes	
2.21	Material of manufacture		3CR12	
3	TERMINATIONS			
3.1	Medium Voltage Bushings			
3.1.1	Material			
3.1.2	Creepage Distance	mm		
3.1.3	Basic Insulation Level (BIL)	kV	95	
3.2	Low Voltage Bushings			
3.2.1	Material			
3.2.2	Creepage Distance	mm		
3.2.3	Basic Insulation Level (BIL)	kV	25	
3.2.4	Cable Boxes	Yes/No	Yes	
4	TRANSFORMER TESTS REQUIRED/CONDUCTED TO IEC 60076-1			
4.1	Transformer Type Test certificate to be submitted	Yes/No	Yes	
4.2	Transformer Routine Test certificate to be submitted	Yes/No	Yes	
4.3	Type Tests			
4.3.1	Temperature-rise Test (IEC 60076-2)	Yes/No	Yes	
4.3.2	Dielectric Type Test (IEC 60076-3)	Yes/No	Yes	
4.3.3	Determination of Sound Level (IEC 60076-10) for each method of cooling for which a guaranteed sound level is	Yes/No	Yes	
4.3.4	Measurement of power taken by the fan and liquid pump	Yes/No	Yes	
4.3	Special Tests			
4.3.1	Dielectric Special Test (IEC 60076-3)	Yes/No	No	
4.3.2	Winding Hot-Spot Temperature Rise Measurement	Yes/No	No	
4.3.3	Determination of capacitances windings-to-earth and between windings	Yes/No	No	
4.3.4	Measurement of dissipation factor tan δ of the insulation system capacitance	Yes/No	No	
4.3.5	Determination of transient voltage transfer characteristics (Annex B of IEC 60076-3:2000)	Yes/No	No	
4.3.6	Measurement of zero sequence impedance(s) on three phase transformers (11.6)	Yes/No	No	
4.3.7	Short Circuit withstand test (IEC 60076-5)	Yes/No	No	
4.3.8	Measurement of d.c insulation resistance each winding to earth and between windings	Yes/No	No	
4.3.9	vacuum deflection test on liquid immersed transformers	Yes/No	No	
4.3.10	Pressure deflection test on liquid immersed transformers (11.10)	Yes/No	No	
4.3.11	Vacuum tightness test on site on liquid immersed transformers (1.11)	Yes/No	No	
4.3.12	Measurement of frequency response (Frequency Response Analysis or FRA). The test procedure shall be agreed between manufacturer and purchaser.	Yes/No	No	
4.3.13	Check of external coating (ISO 2178 and ISO 2409 or as specialised)	Yes/No	No	
4.3.14	Measurement of dissolved gasses in dielectric liquid	Yes/No	No	
4.3.15	mechanical test or assessment of tank for suitability for transport (to customer specification)	Yes/No	No	
4.3.16	Determination of weight with transformer arranged for transport. For transformer up to 1.6MVA by measurement. For larger transformers by measurement or calculation as agreed between manufacturer and purchaser.	Yes/No	No	
4.4	Routine Tests			
4.4.1	Measurement of winding resistance	Yes/No	Yes	
4.4.2	Measurement of voltage ratio and check of phase	Yes/No	Yes	
4.4.3	Measurement of short-circuit impedance and load loss	Yes/No	Yes	
4.4.4	Measurement of no-load loss and current	Yes/No	Yes	
4.4.5	Dielectric routine test (IEC 60076-3)	Yes/No	Yes	
4.4.6	Test on on-load tap-changers, where appropriate	Yes/No	N/A	
4.4.7	Leak testing with pressure for liquid-immersed transformers (tightness test)	Yes/No	Yes	
4.4.8	Tightness tests and pressure tests for tanks for gas-filled transformers (refer to 60076-15)	Yes/No	N/A	
4.4.9	Check of the ratio and polarity of built-in current	Yes/No	N/A	

DATA SHEET No. DS-EP-0042
MV CABLES AND CABLE SYSTEMS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	MEDIUM VOLTAGE CABLES			
1.1	Manufacturer			
1.2	Country of Origin			
1.3	Operating Voltage	kV	11	
1.4	Number of Cores	No	3	
1.5	Size	mm ²	As per SLD	
1.6	Type		Screened	
1.7	Conductor Type	Cu/Al	Cu	
1.8	Insulation	PILC/ XLPE	XLPE	
1.9	Armouring	DSTA/SWA	SWA	
2	Serving		PVC	
2.1	Full Load Current	A		
2.2	Earth Fault Current	A		
2.3	Bear SANS Mark	Yes/No		
2	MEDIUM VOLTAGE CABLE TERMINATION KIT			
2.1	Manufacturer			
2.2	Country of Origin			
2.3	Operating Voltage	kV	11	
2.4	Size	mm ²	As per SLD	
2.5	Cable Conductors	Cu/Al	Cu	
2.6	Type of Lugs		Shear-off	
2.7	Full Earth Kit required	Yes/No	Yes	
2.8	Heat Shrink Type required	Yes/No	Yes	
2.9	Complete Kit by one Manufacturer	Yes/No	Yes	
2.10	Type Test Certificate	Yes/No	Yes	
2.11	Bear SANS Mark	Yes/No		
3	MEDIUM VOLTAGE CABLE JOINT KIT			
3.1	Manufacturer			
3.2	Country of Origin			
3.3	Operating Voltage	kV	11	
3.4	Size	mm ²	As per SLD	
3.5	Cable Conductors	Cu/Al	Cu	
3.6	Type of Ferrules		Shear-off	
3.7	Full Earth Kit required	Yes/No	Yes	
3.8	Type required (Heatshrink / Cast Iron)		Heatshrink	
3.9	Complete Kit by one Manufacturer	Yes/No	Yes	
3.10	Type Test Certificate	Yes/No	Yes	
3.11	Bear SANS Mark	Yes/No		
4	INSTALLATION			
4.1	Depth	mm (to cable centre)	800	
4.2	Outdoor Cable Markers	Yes/No	Yes	

Regardless of any information provided in this technical detail sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ Signature: _____

DATA SHEET No. DS-II-0001
CONTROL, INSTRUMENTATION AND DATA CABLES

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	CONTROL CABLES			
1.1	Manufacturer			
1.2	Size	mm ²	1.5	
1.3	Operating Voltage	V	24VDC/230VAC	
1.4	Number of Cores	No	See Schedules	
1.5	Size	mm ²		
1.6	Conductor Type	Cu/Al		
1.7	Cable Type			
1.8	Full Load Current	A		
1.9	Armouring	Yes/No	Yes, SWA	
2	INSTRUMENTATION CABLES			
2.1	Manufacturer			
2.2	Operating Voltage	V	24VDC/230VAC	
2.3	Size	mm ²	1.5	
2.4	Cable Type		Twisted Pair	
2.5	Screened		Individually and Overall	
2.6	Armouring	Yes/No	Yes	
2.7	Wires	2 Wire / 4 wire	2 wire	
2.8	Instrument cable shielding/ earthing concept		Earth at PLC, then to main Earth bar in MV Switchgear	
3	WIRE MESH CABLE TRAY			
3.1	Manufacturer			
3.2	Type			
3.3	Material		HDG	
3.4	Duty	Heavy / Medium	Heavy	
3.5	Application		Instrumentation Cables	
4	FIBRE OPTIC			
4.1	Manufacturer			
4.2	Installation Method		Blown into microduct	
4.3	Type		Single mode	
4.4	Armouring	Yes/No	No	
4.5	Armouring Type		N/A	
4.6	Termination preference type		ST	
4.7	Cores	No	min 8	
4.8	Number Microducts	No	3 (2 spare)	
5	ETHERNET COPPER CABLES			
5.1	Manufacturer			
5.2	Type		CAT5 STP	
5.3	Armouring	Yes/No	YES	
5.4	Termination Type		RJ 45 (Moulded case type)	

DATA SHEET No. DS-II-0001

CONTROL, INSTRUMENTATION AND DATA CABLES

	DESCRIPTION	UNIT	SPECIFIED	OFFERED

Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements.

Name (Print): _____ Signature: _____.

DATA SHEET No. DS-II-0002
PROGRAMMABLE LOGIC CONTROLLERS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	PROGRAMMABLE LOGIC CONTROLLERS			
1.1	Manufacturer		Allen Bradley or similar	
1.2	Model			
1.3	CPU			
1.4	CPU configuration			
1.5	CPU memory		>=8 MB	
1.6	Digital Inputs	No.		
1.7	Digital Outputs	No.		
1.8	Analogue Inputs	No.		
1.9	Analogue Outputs	No.		
1.10	Spare I/O	%	20%	
1.11	Ports			
1.11.1	Ethernet	No.		
1.11.2	Serial	No.		
1.11.3	Other	No.		
1.12	Software			
1.13	All engineering software included with PLC	Yes / No	Yes	
1.14	Annual Software License renewal required	Yes / No	No, should be once off fee	
1.15	Programming Language		IEC 61131	
1.16	Backplate			
1.17	Datasheets included with tender	Yes / No	Yes	
2	REMOTE IO			
2.1	Manufacturer			
2.2	Model			
2.3	Ethernet/Fieldbus Ports	No.		
2.4	Digital Inputs	No.		
2.5	Digital Outputs	No.		
2.6	Analogue Inputs	No.		
2.7	Analogue Outputs	No.		
2.8	Spare I/O	%	30%	
2.9	Power Supply	VAC	230V	
2.10	Datasheet included with tender	Yes / No	Yes	
3	PLC PANEL			
3.1	Enclosure Material		3CR12	
3.2	Enclosure Colour		Green	
3.3	Enclosure Rating	IP	42	
3.4	Enclosure Mounting	Floor Standing / wall mounted	Floor Standing	
3.5	Supply and Control Circuit Voltages	V	24V DC	
3.6	Wire Colours		as per spec	
3.7	Glass door - viewing panel	Yes / No	Yes	
3.8	Termination			
3.9	Glanding			
3.10	Power Supply Unit vendor preferences			
3.11	Uninterruptible Power Supply requirement	Yes / No	Yes	
3.12	Panel light required	Yes / No	Yes, LED	
3.13	Socket outlet required	Yes / No	Yes	
3.14	Physical Spare space	%	30	
3.15	IO Voltage / current preferences		24VDC & 4-20mA	
4	HUMAN MACHINE INTERFACE (HMI)			

DATA SHEET No. DS-II-0002
PROGRAMMABLE LOGIC CONTROLLERS

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
4.1	Manufacturer		Allen Bradley or similar	
4.2	Model			
4.3	Screen Size	<i>Inches</i>	$\geq 15"$	
4.4	Screen Type		Colour LCD Display, 256 colors	
4.5	Resolution	<i>Pixels</i>		
4.6	Touch Screen	<i>Yes / No</i>	Yes	
4.7	Type of Touch Screen	<i>Capacitive/ Resistive</i>		
4.8	Touch Screen grid size			
4.9	Backlight			
4.10	Memory (Flash EPROM)			
4.11	Data Backup (SRAM)			
4.12	Interfaces Protocol			
4.13	Interface Port			
4.14	Sound (for Alarm)			
4.15	Data Transfer			
4.16	Printer Port			
4.17	Enclosure Rating	<i>IP</i>	65	
4.18	Position of Installation	<i>Inside Panel / Flush Fronted /</i>	Flush Fronted	
4.19	Software			
4.20	Datasheets included with tender	Yes / No	Yes	
5	UPS			
5.1	Manufacturer			
5.2	Model			
5.3	Place of manufacture			
5.4	Type		Industrial inline double conversion with full static Load + 30%	
5.5	Power	W		
5.6	Backup Time	min	30	
5.7	Output Voltage	V	230V +5%	
5.8	Nominal Frequency	Hz	50	
5.9	Output Waveform		Pure sine wave	
5.10	Number of Phases	1 or 3	1	
5.11	Communication		Serial/Ethernet	
5.12	Battery Life	Years	Min 10.	
5.13	Battery Type		Sealed, maintenance free, lead acid contained	
5.14	Battery Charger			
5.15	Datasheets included with tender	Yes / No	Yes	
6	ETHERNET SWITCHES			
6.1	Manufacturer			
6.2	Model			
6.3	Type			
6.4	Ethernet Ports	<i>No.</i>		
6.5	Fibre ports (SFP)	<i>No.</i>		
6.6	Fibre Termination type			
6.7	Mounting type		Din rail	
6.8	Power Supply	VAC	230V	
6.9	Speed	<i>Mbit</i>	1000	
6.10	Datasheet included with tender	Yes / No	Yes	
7	MAIN ETHERNET SWITCH			

DATA SHEET No. DS-II-0002
PROGRAMMABLE LOGIC CONTROLLERS

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Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ Signature: _____

DATA SHEET No. DS-II-0003
SCADA

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	SCADA COMPUTER			
1.1	Manufacturer			
1.2				
1.3	Model			
1.4	CPU			
1.3.1	Type		Similar or equal to Intel I7	
1.3.2	Speed	GHz	>3GHz	
1.5	Memory	MB	>=8000	
1.6	Hard Drive Storage	GB	>200	
1.7	Operating System		Latest MS Windows	
1.8	Optical Storage		DVD-RW	
1.9	Network Card		Ethernet 10/100/1000	
1.10	Graphics Card		>256MB.	
1.11	Graphics Card Ports		HDMI	
1.12	Keyboard		Yes	
1.13	Mouse		Yes	
1.14	Form Factor (Type all-in-one platform)			
3	DISPLAY SCREENS(23")			
3.1	Manufacturer			
3.2	Model			
3.3	Type		HD LED / LCD (23")	
3.4	Size		23"	
3.5	Resolution		Full HD	
3.6	Graphics ports		HDMI & VGA enabled	
4	SOFTWARE			
4.1	SCADA software			
4.2	Number of Tags	No.		
4.3	Clients	No.	3	
4.4	Anti-Virus Software		Yes	
4.5	Additional Reporting and Business Intelligence		Yes	
4.6	Alarm Management Package		Yes	
5	PRINTER			
5.1	Manufacturer			
5.2	Model			
5.3	Type		Colour Laser	
5.4	Feeding Paper Size		A4	
6	UPS			
6.1	Manufacturer			
6.2	Model			
6.3	Place of manufacture			
6.4	Type		Industrial inline double conversion with full static bypass	
6.5	Power	W	Load + 30%	

DATA SHEET No. DS-II-0003
SCADA

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
6.6	Backup Time	min	30	
6.7	Output Voltage	V	230V +-5%	
6.8	Nominal Frequency	Hz	50	
6.9	Output Waveform		Pure sine wave	
6.10	Number of Phases	1 or 3	1	
6.11	Communication		Serial/Ethernet	
6.12	Battery Life	Years	Min 10.	
6.13	Battery Type		Sealed, maintenance free, lead acid contained in UPS	
6.14	Battery Charger			
6.15	Rack mounted	Yes / No	Yes	
6.16	Datasheets included with tender	Yes / No	Yes	
7	GSM Router			
7.1	Manufacturer			
7.2	Model			
7.3	External antenna		Yes	
7.4	Service Provider			
7.5	Datasheet included with tender	Yes / No	Yes	
8	WORK STATION FURNITURE			
8.1	Manufacturer		Similar to Evans Strategy	
8.2	Model			
8.3	Sketch/Drawing included with tender	Yes / No	Yes	
9	RACK CABINET			
9.1	Manufacturer			
9.2	Model			
9.3	Size	U	42	
9.4	Dimensions	(W x L) in mm		
9.5	Locakable	Yes/No	Yes	
9.6	Mounting type		Floor standing	
9.7	Power Distribution	Dedicated Multiplug / Hardwired	Dedicated Multiplug	
9.8	Sketch/Drawing layout included with tender	Yes / No	Yes	
10	ETHERNET SWITCH (TSOMO WTW SCADA)			
10.1	Manufacturer			
10.2	Model			
10.3	Type			
10.4	Ethernet Ports	No.	>=4	
10.5	Fibre ports (SFP)	No.		
10.6	Fibre Termination type			
10.7	Mounting type			
10.8	Power Supply	VAC	230V	
10.9	Speed	Mbit	1000	
10.10	Datasheet included with tender	Yes / No	Yes	
11	VOIP Phone			
11.1	Manufacturer			
11.2	Model			

DATA SHEET No. DS-II-0003
SCADA

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Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ **Signature:** _____.

DATA SHEET No. DS-II-0007
INSTRUMENTATION

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
1	ULTRASONIC CLAMP ON FLOW METERS			
1.1	Manufacturer		Keiki or similar	
1.2	Type		Dual channel	
1.3	Sensor Model			
1.4	Transmitter Model			
1.5	Pipe Size	mm / DN		
1.6	Flow Rate	m ³ /hr		
1.7	Number of Relay outputs	No.		
1.8	Fieldbus Enabled	Yes / No		
1.9	Surge Protection Required	Yes / No		
1.10	Local Indication Required	Yes / No	Yes transmitter in control room	
1.11	Factory Calibration Certificate	Yes / No	Yes	
1.12	Site Commissioning Certificate	Yes / No	Yes	
1.13	Additional datasheet from manufacturer included with tender	Yes / No	Yes	
2	INSERTION FLOW METERS			
2.1	Manufacturer			
2.2	Model			
2.3	Type			
2.4	Flow Rate	m ³ /hr		
3	FLOW SWITCH			
3.1	Manufacturer			
3.2	Model			
3.3	Type			
4	PRESSURE TRANSMITTERS			
4.1	Manufacturer			
4.2	Sensor Model			
4.3	Transmitter Model			
4.4	Detection Range	kPa		
4.5	Number of Relay outputs	No.		
4.6	Fieldbus Enabled	Yes / No	No	
4.7	Surge Protection Required	Yes / No	No	
4.8	Local Indication Required	Yes / No	No	
4.9	Additional datasheet from manufacturer included with tender	Yes / No	Yes	
5	TEMPERATURE TRANSMITTERS			
5.1	Manufacturer			
5.2	Sensor Model		PT100	
5.3	Transmitter Model			
5.4	Detection Range	Degrees °C	0-100	
5.6	Process Connection		As indicated on the P&ID	
6	VIBRATION TRANSMITTERS			
6.1	Manufacturer			
6.2	Sensor Model			
6.3	Transmitter Model			
6.4	Type		Piezoelectric Accelerometer	

DATA SHEET No. DS-II-0007
INSTRUMENTATION

	DESCRIPTION	UNIT	SPECIFIED	OFFERED
6.5	Vibration Detection Range	mm/s	0...25	
6.6	Frequency Detection Range	Hz	0...1000	
6.7	Acceleration Detection Range	g	+ - 25	
6.8	Fieldbus Enabled	Yes / No	No	
6.9	Local Indication Required	Yes / No	No	
6.10	Surge Protection Required	Yes / No	Yes	
6.11	No. Axis		2 (x,y)	
6.12	Additional datasheet from manufacturer included with tender	Yes / No	Yes	
7	LEVEL SWITCHES			
7.1	Manufacturer			
7.2	Sensor Model			
7.3	Transmitter Model			
7.4	Type		Float type	
7.5	Local Indication Required	Yes / No	No	
7.6	Additional datasheet from manufacturer included with tender	Yes / No	Yes	
8	LIMIT SWITCHES / POSITION SENSOR			
8.1	Manufacturer			
8.2	Model			
8.3	Type		Inductive Proxy	
8.4	Additional datasheet from manufacturer included with tender	Yes / No	Yes	
9	SURGE PROTECTION			
9.1	Instrument Power Supply Circuits - Manufacturer			
9.2	Instrument Power Supply Circuits - Model			
9.3	Instrument Signal Loop - Manufacturer			
9.4	Instrument Signal Loop Circuits - Model			
9.5	Instrument Transducer Loop - Manufacturer			
9.6	Instrument Transducer Loop Circuits - Model			
10	INSTRUMENTATION JUNCTION BOXES			
10.1	Manufacturer			
10.2	Material of Construction: 1.6mm Mild Steel / 2.0mm Mild Steel / Electro Galvanized / Stainless Steel / 3CR12 / Fibre Glass		3CR12	
10.3	Epoxy Powder Coated	Yes / No	Yes	
10.4	Colour		Electric Orange	
10.5	IP Rating (Indoor)	IP	54	
10.6	IP Rating (Outdoor)	IP	65	
11	INSTRUMENT TRANSMITTER HOUSINGS			
11.1	Manufacturer			
11.2	Steel / Electro Galvanized / Stainless Steel / 3CR12 / Fibre		3CR12	
11.3	Epoxy Powder Coated	Yes / No	Yes	
11.4	Colour		Electric Orange	
11.5	IP Rating (Indoor)	IP	54	
11.6	IP Rating (Outdoor)	IP	65	
13	SUPPLEMENTARY DETAILS			

DATA SHEET No. DS-II-0007
INSTRUMENTATION

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Regardless of any information provided in this technical data sheet, the equipment to be provided will comply with the specified requirements

Name (Print): _____ Signature: _____