



## water & sanitation

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

### REQUEST FOR BID

W11417

**SUPPLY AND DELIVERY OF HYDROLOGICAL EQUIPMENT, SENSORS, APPLICATION SOFTWARE AND ACCESSORIES FOR THE MEASUREMENT AND TRANSMISSION OF SURFACE WATER PARAMETERS.**

### ISSUE DATE

21 OCTOBER 2022

### CLOSING DATE AND TIME

22 NOVEMBER 2022 at 11H00

#### Compulsory briefing Session

Date: 10<sup>TH</sup> November 2022

Venue: Department of Water and Sanitation  
Francis Baard Street (formerly Schoeman)  
173 Emanzini Building, Board Room 335  
Pretoria, 0001

Time: 10.00 am

### SUBMIT TENDER DOCUMENT

**POSTAL ADDRESS:**  
DIRECTOR-GENERAL: WATER AND  
SANITATION  
PRIVATE BAG X 313 PRETORIA, 0001

OR

**TO BE DEPOSITED IN:**  
THE TENDER BOX AT THE  
ENTRANCE OF ZWAMADAKA  
BUILDING 157 FRANCIS BAARD STREET  
(FORMERLY SCHOEMAN STREET)  
PRETORIA

**TENDERER:** (Company address and stamp)

COMPILED BY: JACOB MABUSELA  
DEPARTMENT OF WATER AND SANITATION

**Please be aware that the Department representatives at SCM will never call you and demand bribes in exchange for a tender; if this happens, please notify the Department.**



## DIRECTIVE TO BIDDERS ON COMPLETION OF SBD FORMS AND PACKAGING OF BID PROPOSAL

The purpose of this document is to guide bidders on the completion of SBD forms and packaging of a Bid Proposals with each document being placed under the correct Annexure.

The last column of the table below (this column must be ticked as an indication that each document and its requirements have been complied with by the bidder

The dates on this all-SBD forms must be a date which is within the bid advert period

TABLE OF CONTENTS FOR BID PROPSALS

DOCUMENT	ANNEXURE	DIRECTIVE	COMPLIED/NOT COMPLIED
SDB 1	A	Bidders are required to complete this document in full and be signed off. The date on this form must be a date which is within the bid advert period	
SBD 3.1/3.3	B	Bidders are required to complete the applicable form in full and ensure that the amounts in the document are properly calculated. The total amount (inclusive of VAT) as reflected herein will be regarded as the Total Bid Price. <b>Bidders who are not VAT Vendors are not allowed to charge VAT</b> Bidders are required to constantly verify their TAX Status on CSD to ensure that their task matters are in order	
SBD 4	C	This document must be completed in full. <b>Bidders attention is drawn particularly to paragraph 2.3 which requires the bidder to disclose if the company or any of its directors have interest in other companies whether they have bid or not. Bidders are required to provide all information. Should a bidder have more companies to declare, such information can be provided on a separate sheet in the format prescribed in the form and be attached to the SBD 4. Information captured must be inline with what is captured in the CSD report</b>	
SBD 6.1	D	This document must be completed in full. Bidders are advised to ensure that information captured in this this form is aligned to information contained in the CSD Reports. Eg. Under subcontracting (par 7.1.1) information on whether a company is QSE or EME must be inline with information in the CSD	
BBBEE Certificate/Sworn affidavit	E	Bidders are required to submit a valid BBBEE Certificate or sworn affidavit.	
CSD Report	F	Bidders are requested to provide copies of reg CSD Report.	
Bid Proposal	G	A detailed bid proposal inline with the Specifications must be attached	

## PART B TERMS AND CONDITIONS FOR BIDDING

<b>1. BID SUBMISSION:</b>	
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	<b>ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.</b>
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4.	<b>THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).</b>
<b>2. TAX COMPLIANCE REQUIREMENTS</b>	
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE <a href="http://WWW.SARS.GOV.ZA">WWW.SARS.GOV.ZA</a> .
2.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6	WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7	NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

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

SIGNATURE OF BIDDER: .....

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

DATE: .....

## PART A INVITATION TO BID

<b>YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)</b>					
BID NUMBER:	W11417	CLOSING DATE:	22 NOVEMBER 2022	CLOSING TIME:	11H00
DESCRIPTION	SUPPLY AND DELIVERY OF HYDROLOGICAL EQUIPMENT, SENSORS, APPLICATION SOFTWARE AND ACCESSORIES FOR THE MEASUREMENT AND TRANSMISSION OF SURFACE WATER PARAMETERS				
<b>BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)</b>					
<b>TENDER BOX SITUATED AT ZWAMADAKA BUILDING, 157 FRANCIS BAARD STREET, PRETORIA, 0002</b>					
CONTACT PERSON	Jacob Mabusela	CONTACT PERSON	Mr Chris Lloyd		
TELEPHONE NUMBER	(012) 336 7240	TELEPHONE NUMBER	(051) 405 9248		
CELL PHONE		CELL PHONE	082-827 5287		
E-MAIL ADDRESS	mabuselaj@dws.gov.za	E-MAIL ADDRESS	Lloyd@dws.ov.za		
<b>SUPPLIER INFORMATION</b>					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX]  <input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		[TICK APPLICABLE BOX]  <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES &amp; QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]</b>					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?		<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
<b>QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS</b>					

## PRICING SCHEDULE – FIRM PRICES (PURCHASES)

**NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED**

**THE DELIVERY POINTS WILL BE ALL OVER THE COUNTRY AND THEREFORE THE DELIVERY COSTS SHOULD BE INCLUDED ON THE PRICES BY THE BIDDERS.**

Name of bidder.....	Bid Number: W11417
Closing Time 11:00	Closing date :22 NOVEMBER 2022

**OFFER TO BE VALID FOR 120 DAYS FROM THE CLOSING DATE OF BID.**

**1. SINGLE CHANNEL DATA LOGGER: WITH INTEGRATED PRESSURE TRANSDUCER WITHOUT LC DISPLAY WITH VENTED CABLE**

ITEM NO	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
1.	<b>Single-channel data logger</b> with integrated Pressure Transducer without LC display with Vented Cable (0-10m range).	14	Unit Price R.....  Total price: R.....
2.	<b>Accessory: USB converter communication cable</b> to enable configuration of the equipment via laptop-, palmtop or Smart Device	18	Unit Price R.....  Total price: R.....
3.	<b>Single-channel data logger</b> with integrated Pressure Transducer without LC display with Vented Cable (0-5m range).	1	Unit Price R.....  Total price: R.....
4.	<b>Vented Transducer Cable</b> (Total meters required)	269	Unit Price R.....  Total price: R.....
		VAT	R
		TOTAL CEILING PRICE	R

2. **Multi-channel data logger** with a connector box for external sensors: 4-20 mA (vented pressure transducer) and digital pulse (rainfall); Submersible with internal battery and internal GSM modem;

ITEM NO	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
1.	<b>Multi-channel data logger with connector box</b> for external sensors: 4-20 mA (vented pressure transducer) and digital pulse (rainfall); <b>Submersible data logger with internal battery and internal GSM modem</b>	236	Unit Price R.....  <b>Total price:</b> R.....
2.	<b>Accessory: USB converter communication cable</b> to enable configuration of the equipment via laptop-, palmtop or Smart Device	18	Unit Price R.....  <b>Total price:</b> R.....
VAT		R	
TOTAL CEILING PRICE		R	

3. **Sensor for Water Level Measurement: Pressure Transducer: Piezo resistive sensor**  
(Ceramic) with 4-20mA output.

ITEM NO	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
1.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-1m range)	38	Unit Price R.....  Total price: R.....
2.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-2m range)	6	Unit Price R.....  Total price: R.....
3.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-5m range)	20	Unit Price R.....  Total price: R.....
4.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-6m range)	5	Unit Price R.....  Total price: R.....
5.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-7m range)	4	Unit Price R.....  Total price: R.....
6.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-8m range)	1	Unit Price R.....  Total price: R.....
7.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-10m range)	225	Unit Price R.....  Total price: R.....
8.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-15m range)	5	Unit Price R.....  Total price: R.....
9.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-16m range)	2	Unit Price R.....  Total price: R.....
10.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor	1	Unit Price R.....

	(Ceramic) with 4-20mA Output (0-18m range)		Total price: R.....
11.	Sensor for Water Level Measurement: <b>Pressure</b> Transducer: Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-20m range)	21	Unit Price R..... Total price: R.....
12.	Sensor for Water Level Measurement: <b>Pressure</b> Transducer: Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-25m range)	4	Unit Price R..... Total price: R.....
13.	Sensor for Water Level Measurement: <b>Pressure</b> Transducer: Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-30m range)	17	Unit Price R..... Total price: R.....
14.	Sensor for Water Level Measurement: <b>Pressure</b> Transducer: Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-35m range)	1	Unit Price R..... Total price: R.....
15.	Sensor for Water Level Measurement: <b>Pressure</b> Transducer: Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-40m range)	8	Unit Price R..... Total price: R.....
16.	Sensor for Water Level Measurement: <b>Pressure</b> Transducer: Piezo Resistive Sensor (Ceramic) with 4-20mA Output (0-60m range)	1	Unit Price R..... Total price: R.....
17.	<b>Vented Transducer Cable</b> (Total meters required)	10759	Unit Price R..... Total price: R.....
VAT			R
TOTAL CEILING PRICE			R

4. **Sensor for Weather Measurement:** Rain gauge, tipping bucket with integrated syphon mechanism (high levels of accuracy), for low rainfall events, powder coated aluminium/ ASA Polymer:

ITEM NO	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
1.	<b>Rain gauge:</b> 0,2mm tipping bucket with integrated syphon mechanism (high levels of accuracy), for low rainfall events, powder coated aluminium/ ASA Polymer	43	Unit Price R.....  Total price: R.....
		VAT	R
		TOTAL CEILING PRICE	R

5. **External GSM Modem antennae**

ITEM NO	DESCRIPTION	QUANTITY	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)
1.	<b>External GSM antenna, (antenna 1 – 1,5m cable)</b>	28	Unit Price R.....  Total price: R.....
2.	<b>External GSM antenna, (antenna 1 – 2m cable)</b>	2	Unit Price R.....  Total price: R.....
3.	<b>External GSM modem antenna, (antenna 2 – 1,5m cable)</b>	31	Unit Price R.....  Total price: R.....
4.	<b>External GSM modem antenna, (antenna 2 – 5m cable)</b>	8	Unit Price R.....  Total price: R.....
5.	<b>External GSM modem antenna, (antenna 2 – 10m cable)</b>	6	Unit Price R.....  Total price: R.....
		VAT	R
		TOTAL CEILING PRICE	R

- Required by: .....
- At: .....  
.....
- Brand and model .....
- Country of origin .....
- Does the offer comply with the specification(s)? \*YES/NO
- If not to specification, indicate deviation(s) .....
- Period required for delivery .....  
\*Delivery: Firm/not firm
- Delivery basis .....

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.  
Refer to the ToR for different delivery point(s).

\*\* "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

\*Delete if not applicable

**Any enquiries regarding bidding procedures may be directed to:**

Department: Department of Water and Sanitation

Contact Person: Mr Jacob Mabusela  
Tel: 012 336 7240  
E-mail address: [mabuselaj@dws.gov.za](mailto:mabuselaj@dws.gov.za)

**Any enquiries regarding technical information may be directed to:**

Contact Person: Mr Chris Lloyd  
Tel: (051) 405 9248  
Cell: 082-827 5287  
E-mail address: [Lloyd@dws.ov.za](mailto:Lloyd@dws.ov.za)

## BIDDER'S DISCLOSURE

### 1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

### 2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest<sup>1</sup> in the enterprise, employed by the state? **YES/NO**

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

Full Name	Identity Number	Name of State institution

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

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

2.2.1 If so, furnish particulars:

.....  
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

**YES/NO**

2.3.1 If so, furnish particulars:

.....  
.....

### **3 DECLARATION**

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

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

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

3.3 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 consortium<sup>2</sup> will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.4 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.

3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

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<sup>2</sup> 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.

- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....  
Signature Date

.....  
Position Name of bidder

## 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)
  - a) The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable.

1.2 Points for this bid shall be awarded for:

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

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

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

1.4 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.

1.5 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.

### 2. 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;

### 3. POINTS AWARDED FOR PRICE

#### 3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

$$P_s = 80 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

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

#### 4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 4.1 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

#### 5. BID DECLARATION

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

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

- 6.1 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.

#### 7. SUB-CONTRACTING

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

(Tick applicable box)

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

- 7.1.1 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.....

iv) Whether the sub-contractor is an EME or QSE

(Tick applicable box)

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

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 least 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		

## 8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

Partnership/Joint Venture / Consortium

One person business/sole propriety

Close corporation

Company

(Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

.....

8.6 COMPANY CLASSIFICATION

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

[TICK APPLICABLE BOX]

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

8.8 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:

- 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 *audialterampartem* (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 .....

.....

.....

# **GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT**

## **NOTES**

**The purpose of this document is to:**

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and**
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.**

**In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.**

- ☐ **The General Conditions of Contract will form part of all bid documents and may not be amended.**
- ☐ **Special Conditions of Contract (SCC) relevant to a specific bid, should be compile separately for every bid (if (applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.**

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## **General Conditions of Contract**

### **1. Definitions** 1. The following terms shall be interpreted as indicated:

- 1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 "Day" means calendar day.
- 1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.
- 1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.
- 1.10 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 "GCC" means the General Conditions of Contract.

- 1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in bidding documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- 1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 "Written" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

## **2. Application.**

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

## **3. General**

- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from [www.treasury.gov.za](http://www.treasury.gov.za)

#### **4. Standards**

- 4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

#### **5. Use of contract documents and information; inspection.**

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

#### **6. Patent rights.**

- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

#### **7. Performance security**

- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.

- 7.3 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
- (a) A bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
  - (b) A cashier's or certified cheque
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

## **8. Inspections, tests and analyses**

- 8.1 All pre-bidding testing will be for the account of the bidder 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or organization acting on behalf of the Department.
- 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department
- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract supplies may on or after delivery be inspected, tested or 8 analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract .Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

## **9. Packing**

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

## **10. Delivery and documents**

- 10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 10.2 Documents to be submitted by the supplier are specified in SCC.

## **11. Insurance**

- 11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

## **12. Transportation**

- 12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

## **13. Incidental services**

- 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (a) Performance or supervision of on-site assembly and/or commissioning of the supplied goods;
  - (b) Furnishing of tools required for assembly and/or maintenance of the supplied goods;
  - (c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
  - (d) Performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and

- (e) Training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

- 13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

#### **14. Spare parts**

- 14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) Such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
- (b) In the event of termination of production of the spare parts:
  - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
  - (ii) Following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

#### **15. Warranty**

- 15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
- 15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

#### **16. Payment**

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated in SCC.

## **17. Prices**

- 17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

## **18. Contract amendments**

- 18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

## **19. Assignment**

- 19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

## **20. Subcontracts**

- 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

## **21. Delays in the supplier's performance**

- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

- 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
- 21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
- 21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

## **22. Penalties**

- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

## **23. Termination for default**

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (a) If the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
  - (b) If the Supplier fails to perform any other obligation(s) under the contract; or
  - (c) If the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.
- 23.5 Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- (i) The name and address of the supplier and / or person restricted by the purchaser;
  - (ii) The date of commencement of the restriction
  - (iii) The period of restriction; and
  - (iv) The reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

- 23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

## **24. Anti-dumping and countervailing duties and rights**

- 24.1 When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

## **25. Force Majeure**

- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

## **26. Termination for insolvency**

- 26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

## **27. Settlement of Disputes**

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- 27.5 Notwithstanding any reference to mediation and/or court proceedings herein,
- (a) The parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
  - (b) The purchaser shall pay the supplier any monies due the supplier.

## **28. Limitation of liability**

28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;

(a) The supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and

(b) The aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

## **29. Governing language**

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that exchanged by the parties shall also be written in English.

## **30. Applicable law**

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.

## **31. Notices**

31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.

31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

## **32. Taxes and duties**

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.

32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

## **33. National Industrial Participation (NIP) Programme**

33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation

## **34. Prohibition of Restrictive practices**

- 34.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).
- 34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.
- 34.3 If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

Js GCC (revised July 2010)

## **STANDARD SPECIFICATIONS**

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## **SECTION 1:**

### **STANDARD SPECIFICATIONS**

#### **GENERAL REQUIREMENTS**

##### **1. GENERAL:**

- 1.1. This Standard Technical Specification describes the general requirements with regard to material, equipment and workmanship and should be read together with the General Conditions of Tender, Contract and Order, Detail Specifications and Schedules.
- 1.2. Where any conflict exists, the relevant clauses of the Detail Specification shall take preference over the clauses of the Standard Technical Specification.
- 1.3. Should any conflict arise between the requirements of this standard specification and the General Conditions of Contract, Contract and Order, the General Conditions of Contract, Contract and Order would take preference.
- 1.4. The works and services required in terms of this specification shall comply with all the requirements of this specification, read together with the detail specification.
- 1.5. The Manufacturers Certificate of Compliance for each item offered must be supplied as part of the Bid Document in order for the Evaluation Panel to confirm compliance or non-compliance.
- 1.6. The Bidder shall be deemed to have examined all the constituent parts of this document carefully before the contract was submitted. Any doubts as to the meaning of any terms, phrases or clauses of the document, or any missing pages, shall be submitted to the Department in writing before a contract is submitted. No claims traceable to non-compliance with this clause will be considered.
- 1.7. If it is found at any stage of this contract that the Bidder has deviated from the requirements of this specification without the written consent of the Department, then the Department shall have the right to order the Bidder to remove the item(s) in question and to supply and/or install the exact equipment specified without any adjustment in the contract price.
- 1.8. Definitions:
  - 1.7.1. For the purposes of this contract all terms used shall be as defined in section 2 of SABS code 0142-1981, Article 1 of the Machinery and Occupational Safety Act, No 6 of 1983 and other relevant SABS specifications.

##### **2. ENVIRONMENTAL CONDITIONS:**

- 2.1. Except when otherwise specified, all equipment and material shall be designed and selected for the following climatic and environmental conditions:
  - 2.1.1. Operating temperature range: - 10° C to + 70° C.
  - 2.1.2. Relative humidity: maximum 95% below 35° C; maximum 75% above 35° C.
  - 2.1.3. Height above sea level: 0 - 3000 metres.
  - 2.1.4. All the equipment shall operate satisfactorily in the presence of a fair amount of water and dust and shall comply with rating IP 54 as defined in IEC 144.
- 2.2. Metal work exposed to the elements shall be of a suitable stainless-steel type or shall be painted or protected against corrosion to the standards specified by the SABS and as approved by the Department. Samples shall be submitted for approval before installation is commenced with.
- 2.3. Contact between dissimilar metals shall be avoided wherever possible. The following electrode potentials shall not be exceeded:

- 2.3.1. For connections exposed to the weather or salt water - 0,25V
- 2.3.2. For connections of interior parts exposed to condensation but not contaminated by salt - 0,5V.

- 2.4. In addition to the normal operating conditions specified above, the equipment should also be capable of operating under temporary adverse periods. If additional protection is required for the equipment and installation under these conditions, then it shall be provided by the Bidder, at his cost, until conditions have improved to the point where additional protection is no longer required.

### **3. REGULATIONS AND STANDARDS:**

- 3.1. The manufacturer's facility must be in existence of at least 5 years with an established agent's office registered in the Republic of South Africa and employ technical personnel for support.
- 3.2. The equipment must be Hydrometry dedicated and be field proven for at least 2 years. The Department may request the Bidder for any proof in this regard before the contract is awarded.
- 3.3. All material and equipment supplied shall be new and of an acceptable quality.
- 3.4. The work shall be carried out strictly in accordance with the latest revision and amendments of the following:
  - 3.4.1. SABS 0142: "Code of practice for the Wiring of Premises" hereinafter called the "Wiring Code".
  - 3.4.2. The "Machinery and Occupational Safety Act 1983", Act no 6 of 1983, hereinafter called the "Act".
  - 3.4.3. The Municipal By-laws and any special requirements of the Local Supply Authority.
  - 3.4.4. The Local Fire Office Regulations.
  - 3.4.5. The regulations of the Department of Post and Telecommunications.
- 3.5. All work shall comply with the relevant SABS specifications for workmanship and material. Where no SABS specification exists, the applicable BS, DIN or IEC specification shall be followed.
- 3.6. Any conflict that should arise between any of the above mentioned regulations and this specification shall forthwith be referred to the Department in writing for his ruling. Under no circumstances shall the Bidder modify any part of the works to comply with amended regulations that may come in force during the construction period before the matter has been cleared with the Department.
- 3.7. The manufacturing company must preferably adhere to ISO 9001 standards.

### **4. DESCRIPTION OF THE PROJECT:**

- 4.1. The project is completely detailed in **SECTION 3, Detail Specification**. Should the Bidder require any further information, then this shall be referred to the Department in writing.

### **5. PRICING SCHEDULE:**

- 5.1. Bidders are required to complete price for items that they are only bidding for. The pricing schedule must be completed in full for each item that the bidder is bidding for. Bidders who do not adhere to this request will be disqualified and their bids will not be considered.

### **6. SUB-CONTRACT WORK:**

- 6.1. All work as specified shall only be performed by the Bidder's own personnel and shall under no circumstances be sub-contracted.

### **7. DELIVERY OF EQUIPMENT:**

- 7.1. The Bidder shall make the necessary arrangements to get all equipment delivered to site / office in accordance with the program and in an undamaged condition. The Bidder shall be responsible for the acquisition of any insurance cover that may be required for equipment in transit and temporary storage.
- 7.2. The delivery point will be Head Office (Pretoria), on the listed address below and therefore bidders should consider that, and the delivery price be included in their prices.

**Delivery Point:**

- 173 Francis Baard Street, Emanzini Building, Pretoria 0001

**8. HANDBOOK AND INSTRUCTION MANUALS:**

- 8.1. The Bidder shall keep accurate records of all tests carried out and the results achieved, all meter readings taken after installation of the equipment, etc. A comprehensive instruction shall be built up by the Bidder and shall be considered to be part of the equipment offered. This manual shall provide complete equipment schematics; Complete equipment layout drawings; All manufacturer's handbooks having reference to the equipment; installation, test and alignment procedures; All inter connection and inter cabling diagrams; All parts and spares lists; Complete trouble shooting procedures and any other information deemed necessary to permit rapid and efficient maintenance of any part of the equipment by a qualified technician. Three copies of all test results, amendments and readings, together with three copies of the instruction manual, built-up as indicated above shall be handed to the Department before he will accept any equipment supplied to meet this specification. All the above shall be fully updated to include whatever final modifications are required to be made by the Bidder to his equipment in order for it to gain acceptance by the Department as being to specification.
- 8.2. The Bidder shall provide complete operating instructions and operating manuals that will enable staff to operate and understand the equipment and systems and to utilize the equipment to its full extent.

**9. TESTS:**

- 9.1. All materials and workmanship shall be of the respective kinds described in the contract and in accordance with the Department's instructions and shall be subjected from time to time to such tests and by such persons as the Department may direct at the place of manufacture or fabrication or on the site or at all or any of such places. Excepts as otherwise provided in the specification the Bidder shall supply such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing of any work and the quality, mass or quantity of any materials used and shall supply samples of material before incorporation in the works for testing as may be selected and required by the Department.
- 9.2. All samples shall be supplied by the Bidder at his own cost if the supply thereof is clearly intended by or provided for in the specification but if not, then at the cost of the Department.
- 9.3. The cost of making any test shall be borne by the Bidder if such test is clearly intended by or provided for in the specification and (in the case only of a test under load or a test to ascertain whether the design of any finished or partly finished work is appropriate for the purposes which it was intended to fulfil) if such is particularised in the specification in sufficient detail to enable the Bidder to price or allow for the same in his contract.
- 9.4. If any test is ordered by the Department which is either-
- a) not so intended by or provided for; or
  - b) not so particularised; or
  - c) though so intended by or provided for is ordered by the Department to be carried out by an independent person or body at any other place than the site or the place of manufacture or fabrication of the materials or equipment tested;  
then the cost of such test shall be borne by the Bidder if the test shows the workmanship of materials not be in accordance with the provisions of the Contract or the Department's instructions, but otherwise by the Department.

**10. TEST EQUIPMENT AND SPARES:**

- 10.1. It is a requirement of this contract that the Bidder shall have available all the test equipment that would be required to allow the Department's staff to commission any part of any system provided in terms of this contract.
- 10.2. The exact test equipment required will depend on the systems supplied and the Bidder shall submit a complete list of the test equipment to be used.
- 10.3. The Bidder shall recommend spares that would be required on site for emergency repairs, complete with unit costs for consideration by the Department.

## **GENERAL SPECIFICATION FOR SOFTWARE DOCUMENTATION**

### **1. SCOPE:**

- 1.1 This specification covers the design and documentation requirements for software supplied under this contract.

### **2. SYSTEM DESIGN:**

- 2.1 The system shall make use of a well defined, standard, tested, debugged and field-proven operating system to control other programme modules which handle the user functional requirements. The operating system shall be capable of handling all input/output organization, scheduling, time-keeping, power failure procedures and to control communications with field hardware and operator devices, process system outputs and command requests.
- 2.2 The operating system shall initialize software upon restart conditions and allocate memory usage of application programmes. Furthermore, the operating system shall enable the system operator to create, store and run application and user programmes while operating system is busy controlling the real time application system. This user programme modifying facility should be menu driven under operating system control to enable operations to easily effect user system changes.
- 2.3 The operating system shall preferably reside in firmware and the software shall be task orientated, with linking and synchronisation possible between tasks. Tasks shall be allocated priorities and shall be able to control themselves relative to real-time so that the complete system is not "hung-up" by a faulty input device, such as chattering alarm relay.

### **3. DOCUMENTATION:**

The successful Bidder shall supply full software documentation with the delivery of the equipment.  
Four copies of each of the following shall be provided:

- 3.1 A system manual containing detailed description of the operating system and the drivers of each software module, task or sub-module used. This description shall clearly specify the functions and structure of each module and the interfaces and links between them. This manual shall also describe how new software modules can be added, running under the same operating system.
- 3.2 A manual containing a complete set of programme listings.
- 3.3 An operator's manual, specifying all the system operating procedures in detail, for each system forming part of this contract.
- 3.4 A software user's manual (for each system) providing detailed information on how additions to the system can be generated, for instance the addition of an out-station, creation of a new access control category etc., or how system parameters can be changed or deleted. This manual should avoid the use of computer system jargon, shall include a definition of terms used and shall be written in such a way that operators without formal computer hardware or software training will be able to effect the changes as far as possible.

**4. DATA BASE COMPILATION AND BUILDING:**

- 4.1 The successful Bidder shall create, edit, debug and put into operation the initial data base required for each system to be supplied in terms of this document. The data base shall be compiled and built from the specified parameters and from information which will be supplied by the Department where applicable.
- 4.2 Bidders are, therefore, required to allow for the compilation of the required data basis in their contracts.

**SECTION 2:**            **DETAIL SPECIFICATIONS**

**CONTENTS**

**GENERAL REQUIREMENTS:**

1.     Scope
2.     Standards and Specifications
3.     Departures from the services rendered
4.     Purpose of the equipment
5.     Testing of equipment
6.     Installation
7.     Transport
8.     Manuals
9.     Technical Schedules
10.   General Technical Requirements

### **INTEGRATED DATA LOGGING EQUIPMENT:**

1. Single Channel Data Logger with integrated Pressure Transducer without LC Display with vented cable
  - 1.1. USB converter communication cable to enable configuration of the equipment via laptop-, palmtop or Smart Device

### **MULTI CHANNEL DATA LOGGING EQUIPMENT AND TRANSMISSION:**

2. Multi-channel data logger with a connector box for external sensors: 4-20 mA (vented pressure transducer) and digital pulse (rainfall); Submersible with internal battery and internal GSM modem;
  - 2.1. USB converter communication cable to enable configuration of the equipment via laptop-, palmtop or Smart Device

### **SENSORS:**

3. Sensor for Water Level Measurement: Pressure Transducer: Piezo resistive sensor (Ceramic) with 4-20mA output.
4. Sensor for Weather Measurement: Rain gauge, tipping bucket with integrated syphon mechanism (high levels of accuracy), for low rainfall events, powder coated aluminium/ ASA Polymer:
5. External GSM Modem Antenna

**GENERAL REQUIREMENTS:****1. SCOPE**

This contract makes provision for the supply and delivery of electronic data logging equipment, integrated data logging equipment, sensors and power supply equipment for mentioned equipment and application software for mainly the Directorate Hydrological Services of the Department of Water and Sanitation. Other Directorates within the Department (Government Water Schemes, Water Quality, etc.) could also make use of some of the equipment. The equipment will be used to collect and transmit hydrological data from evaporation gauging stations, river gauging stations, dam gauging stations and boreholes, situated throughout the country, for transfer to various Databases.

## 2. STANDARDS AND SPECIFICATIONS:

2.1 The offered equipment with regard to its operational performance is to be in strict accordance with each and every term of the documents listed below:

2.1.1 The Standard Specifications - Section 3.

2.1.2 The Detail Specifications - Section 4.

2.1.3 The information provided in the Technical Schedules - Section 5.

2.2 Next to each detail specification a block is provided for the bidder to complete the following:

2.2.1 Offered equipment / item to specification - ☐ Y or ☒

2.2.2 Offered equipment / item not to specification - ☐ N or ☒ X  
(Refer to Paragraph 3, below.)

## 3. DEPARTURES FROM THE SERVICES TO BE RENDERED:

3.1 If, in their offers to meet these specifications, there are any departures whatsoever from any of the provisions, or from any of the terms set out in paragraph 2 (Standards and Specifications), then Bidders shall list each and every departure in Section 1. (Annexure A). The list, which shall accompany the bid offer, shall be so numbered as to correlate each departure from the relative paragraph contained in the documents listed at 2.1. above.

3.2 **Failure on the part of any Bidder to meet this requirement in full shall signify compliance with the terms and conditions of the contract.**

## 4. PURPOSE OF THE EQUIPMENT:

4.1 The data loggers will be automatic, self-powered and required to sample selected parameters at different locations at a gauging site, parameters being: water level, conductivity, water temperature, pH, air temperature, precipitation, net radiation, wind speed, wind direction, turbidity, humidity and air temperature. The parameters will be sampled at predefined intervals and the data logger needs to store the collected data in the form of analogue values or digital signals.

4.2 At regular intervals, typically 30 to 60 days, the stored data will be read out via an USB, infrared interface or RS 232 and/or USB port with a laptop-, palmtop or Smart Device. The data will then be read out at the data processing facilities at Head Office in Pretoria, or at the Regional Offices.

4.3 The data loggers should have the capability of interfacing with either a transmitter to send data via satellite, national telephone link or cellular telephone link to the processing facilities at Head Office in Pretoria or Regional Offices.

## 5. TESTING OF EQUIPMENT:

5.1 The Department reserves the right to instruct the successful Bidder to submit a complete data logging system to the SABS to be tested for the following, before final awarding of the contract:

5.1.1 Compliance with the limits on the emission of radio frequency interference, as controlled in terms of the Radio Act.

- 5.1.2 Satisfactory operation of the equipment at the extremes of the ambient operation conditions specified.

The cost for the performance of these tests shall be for the Bidder's account.

## **6. INSTALLATION:**

- 6.1 The equipment shall be designed to allow installation by relatively unskilled staff. No special precautions shall be applicable and connectors shall be so configured that damage will not result should devices be swapped around. Equipment shall be cross polarity protected.
- 6.2 It is a condition of this contract that the Bidder shall assist the Department with the installation of the equipment, in order to ensure proper operation thereof. Installation procedures shall be incorporated in the user manual and all wiring diagrams and information for the proper installation shall be given. Physical installation on site will however be undertaken by Departmental staff.

## **7. TRANSPORT:**

- 7.1 The equipment shall be designed and packaged to withstand transport by vehicle over rough, unmade dusty roads. All printed circuit boards and modules shall be securely mounted using nuts, bolts, stand-offs and PC board sliding tracks. No components shall be glued to the cabinet or other parts.

## **8. MANUALS:**

- 8.1 The Bidder shall provide complete sets of user manuals, in English, included into the unit price, for each system and sub-system to be provided in terms of this contract. The user manual shall include the following:
- Equipment specifications.
  - Assembly and operation details.
  - Wiring diagrams.
  - Troubleshooting.
  - Explanation of error codes and possible remedial action.
  - Maintenance.
  - Contact details and the representative of the supplier.

## **9. TECHNICAL SCHEDULE:**

Bidders are advised that it is in their own interest to provide accurate and detailed information in answer to all the questions asked in the Technical Schedules, which appear in Section 5 of this specification. **Failure to comply with this request will invalidate the bid offer.**

## **10. GENERAL TECHNICAL AND OTHER REQUIREMENTS:**

- 10.1 All submersible instrumentation shall function reliably in water with a high saline content as well as a high silt content, including various chemical pollutants (including sulphates and phosphates) originating from agricultural run-off and other human sources.
- 10.2 Only high quality equipment capable of offering extended service under arduous, hostile conditions in a long-term installation, on unmanned sites, shall be offered.
- 10.3 All instrumentation shall fully comply or exceed the specifications laid down in this Section. No deviation from the specified standards will be accepted.
- 10.4 Only microprocessor-controlled, frequency-synthesis instrumentation incorporating the latest in surface mount technology shall be acceptable.

- 10.5 Bidders shall not offer instrumentation that has been superseded by later models or that will be discontinued in the near future. All instrumentation offered shall be of the most recent design. Should the Bidder be aware of any impending modifications or new equipment he / she shall state the expected implications of such in his / her offer.
- 10.6 All equipment offered shall have a high reliability and shall have a proven record (case history) of usage in the field of Hydrometry / hydrological measurement.
- 10.7 Except when otherwise specified, all equipment shall be suitably protected against lightning and surge damage, up to 2 kV; the relevant test certificates should preferably accompany the bid offer or shall be made available on request to the Department.
- 10.8 Labels:  
The instrumentation shall have durable, clearly legible labels, indicating the make, model, serial number, ratings and other relevant information.
- 10.9 Mounting Brackets:  
The mounting brackets for the instrumentation must be robust and not sensitive to impact and vibration. Where possible, it should be manufactured from corrosion-resistant material, preferably stainless steel, or the equivalent thereof.
- 10.10 Various makes, models, manufacturers' equipment will be used and therefore the Bidder will at all times make the offered equipment's protocol available to the Department for the compatibility to other equipment offered on this contract.
- 10.11 All data logger software updates will be supplied free of charge during the contract period. These upgrades will be delivered / sent / emailed by the Bidder to the relevant offices, which make use of the Bidder's equipment.

## **11. EVALUATION CRITERIA**

The department of Water and Sanitation will evaluate all proposals in terms of the Preferential Procurement Regulations 2017. A copy of the Preferential Procurement Regulations 2017 can be downloaded from [www.treasury.gov.za](http://www.treasury.gov.za). In accordance with the Preferential Procurement Regulations 2017, submissions will be adjudicated on 80/20 points system and the evaluation criteria. A five phase evaluation criteria will be considered in evaluating the bid.

**Phase 1: Pre- Qualification Criteria**

**Phase 2: Administrative Compliance**

**Phase 3: Mandatory Requirement**

**Phase 4: Functional / Technical Evaluation**

**Phase 5: Points awarded for Price and B-BBEE Status Level of Contribution (80/20 Preferential System)**

**Phase 1: Pre-Qualification Criteria**

The following prequalification criteria will be applicable:

Only bidders who are the following will be considered for this bid:

- EMEs
- QSEs
- BBBEE status level of contributor Level 1
- BBBEE status level of contributor Level 2

**NB: Bidders who do not qualify with the prequalification criteria will be disqualified and not considered for phase 2.**

## Phase 2: Administrative Compliance

Bidders are required to comply with the following listed below:

No	Criteria	Yes	No
1	Companies must be registered with National Treasury's Central Supplier Database. Provide proof of print out from CSD.		
2	Tax compliant with SARS (to be verified through CSD and SARS).		
3	Complete, sign, submit SBD 1, SBD 3.1, SBD 4 and SBD 6.1		
4	General Conditions of Contract (GCC)		

## Phase 3: Mandatory compliance

Please note that all bidders must comply with the following mandatory requirements-

No	Criteria	Yes	No
1	Attach manufacturer Certificate of compliance		
2	Compulsory Briefing session Attendance Certificate		

## Phase 4: Functional / Technical Evaluation

The specification questionnaire below is the 4<sup>th</sup> phase evaluation of the proposals to be in compliance with the specification.

11.1. Next to each detail specification a block is provided for the bidder to complete the following:

11.1.1. Offered equipment / item to specification - ☐ Y or ☒

11.1.2. Offered equipment / item not to specification - ☐ N or ☒  
(Refer to Paragraph 10.3.3, below.)

11.1.3. The bidder must initialise each page, he/she has filled and completed.

Suppliers are required to indicate accordingly. Failure to indicate such will result in your bid being disqualified.

**Note: All suppliers who meet the requirements in terms of Phase 3 above, will be considered further for evaluation under phase 4 as provided below.**

The bidders will be evaluated per item offered and therefore may bid for one or more items listed below. Bidders are required to tick next to the item they are bidding for. Bidders must note that they will be evaluated only on items that they have indicated to be bidding for:

Item No.	Item Description	Tick for item bidding for:
1	<b>Single Channel Data Logger</b> with integrated Pressure Transducer without LC Display with vented cable	
1.1	<b>Accessory: USB converter communication cable</b> to enable configuration of the equipment via laptop-, palmtop or Smart Device	
2	<b>Multi-channel data logger</b> with a connector box for external sensors: 4-20 mA (vented pressure transducer) and digital pulse (rainfall); Submersible with internal battery and internal GSM modem;	
2.1	<b>Accessory: USB converter communication cable</b> to enable configuration of the equipment via laptop-, palmtop or Smart Device	
3	<b>Sensor for Water Level Measurement:</b> Pressure Transducer: Piezo resistive sensor (Ceramic) with 4-20mA output.	
4	<b>Sensor for Weather Measurement:</b> Rain gauge, tipping bucket with integrated syphon mechanism (high levels of accuracy), for low rainfall events, powder coated aluminium/ ASA Polymer:	
5	<b>External GSM Modem Antenna</b>	

## DATA LOGGING EQUIPMENT - DETAIL SPECIFICATIONS

### 12. SCOPE:

- 12.1 This part of the specification covers the detail hardware and software requirements for the Data logger equipment.
- 12.2 The data loggers will be utilised at remote measuring stations to collect data. Operation will be in a totally unattended mode, with inspections by staff on a 30 to 60 day cycle.
- 12.3 The installed logger shall be designed and built for minimum maintenance and maximum life expectancy of 10 years or more - and shall be completely fit for the intended purpose. The product is intended to be permanently installed and will be designed for long term unattended operation and minimal maintenance. The long term reliability of the product whilst operating in harsh environments and the product battery life will be considered as very significant factors in the product selection.
- 12.4 The equipment will be mounted in recorder huts, either from mild steel, concrete or brick, with a minimum size of 800 x 800 x 1 800 mm high or mounted in pipes with diameters from 100 mm to 300 mm and will be subjected to a harsh environment.
- 12.5 Enclosures, if available, should be offered for this equipment under "Accessories". These enclosures can be offered in Fibreglass, Robust Plastic, Mild Steel, Stainless Steel, etc.
- 12.6 Preference shall be given to enclosures that include anti-vandalism systems.
- 12.7 Each bidder shall offer complete power supply system/s with the logger offered and should be listed under "Accessories" in the Price Schedule.

- 12.8 Each bidder shall offer a suitable USB converter to enable configuration of the equipment via laptop-, palmtop or Smart Device. The item should be listed under "Accessories" in the Price Schedule.

The logger and the associated meter interfaces must be able to be installed in an underground chamber, which could be flooded from time to time.

### 13. SINGLE CHANNEL DATA LOGGER WITH INTEGRATED PRESSURE TRANSDUCER WITHOUT LC DISPLAY WITH VENTED CABLE

#### 13.1 The Pressure Transducer:

##### 13.1.1 Application:

- The pressure transducer must be capable of measuring water levels from 0 - 50 m, the range of each probe being determined by the Department and pre-set in the factory. Typical ranges must be: 0 - 5 m; 0 - 10 m; 0 - 20m, 0 -30m, 0 - 50 m, and >50 m on request. ☐
- The cable length per pressure transducer to/can be specified by the Department. ☐
- The transducer must be suitably protected against lightning, and the necessary test results must be available on request of the Department. ☐

##### 13.1.2 Design and technical details:

- Transducer housing:
  - The transducer housing must be robust, corrosion-resistant, insensitive to impact and vibration and watertight up to at least 70 m of water column. ☐
  - The transducer housing shall preferably not exceed the following dimensions and weight:
    - i. Length - 500 mm ii. Diameter - 50 mm iii. Weight - 1,0 kg ☐
  - The transducer housing could be fitted with a watertight plug for connection to the transducer cable. ☐
- Pressure sensor:
  - The pressure measuring cell must be chemically and thermally resistant and must preferably be manufactured of aluminium oxide ceramics, or equivalent. ☐
  - ☐
  - The pressure measuring cell must preferably operate, using the capacitive method. Sensors using piezo-resistive, can also be considered. ☐
  - ☐
  - The pressure transducer shall be designed to function satisfactorily under the following temperature range: -5°C to +45°C ☐
  - ☐
  - The pressure transducer shall have a built-in temperature compensator. ☐
- Transducer cable:

The transducer cable must have the following characteristics:

- Flexible and have at least a double sheathing with interposed tinned copper braiding, or better, with an outer diameter of not more than 12 mm; ☐
  - As the transducer cable shall be used as the carrying rope, it shall preferably feature, for longitudinal stability, an internal kevlar core assembly, or equivalent. ☐
  - A polyamide pressure-compensation capillary tube for measuring the reference pressure, with an inside diameter of preferably 3 mm, but not less than 1,0 mm. ☐
  - End of cable should preferably be connected to a logistics unit with an exchangeable humidity absorber. ☐
  - The pressure sensor and transducer cable shall be designed to function satisfactorily with a cable length of at least 100 m. ☐
- The transducer cable can be provided with a watertight plug for connection to the transducer housing. ☐

- Temperature sensor:

- The pressure transducer should preferably have an integrated temperature sensor, preferably of the platinum resistor type. The sensitivity of the measuring element shall be approximately 0,1 °C between a temperature range of at least -5°C to +40°C. ☐

- Output signal:

- The voltage output signal for each measuring range should be 4 - 20 mA. ☐

- Measuring accuracy:

- The overall measuring accuracy of the pressure transducer must be better than, or equal to 0,1 % of the full scale. ☐

### 13.2 Humidity absorber and pressure compensation:

- 13.2.1 The capillary tube in the transducer cable is intended to vent the measuring cell to atmospheric pressure. In order to avoid humid air passing along this capillary tube, it is necessary to remove moisture at the vented side. This should preferably be done in a humidity absorber housing, using silica gel crystals, or equivalent. ☐
- 13.2.2 The pressure compensation box should be compact, wall mountable, and provide easy access for the changing of the desiccant silica gel cartridge. Where other methods of humidity absorption are offered, the bidder must supply proof of efficiency. ☐

### 13.3 The Data Logger:

#### 13.3.1 Data Processing:

- The data logger shall be equipped with a CPU watchdog circuit that will automatically restart the system in case of a severe electrical or electromagnetic disturbance. ☐

#### 13.3.2 Real time clock:

- The data logger shall be equipped with a battery backed hardware real time clock system. ☐
- The real time clock system shall provide time (24 hour system) and date information and shall make provision for leap years. ☐
- The accuracy and stability of the real time clock shall be better than  $\pm 30$  seconds per month, operating under the environmental conditions as specified in this section. ☐

#### 13.3.3 Memory:

- The data logger shall preferably be provided with a EEPROM ring memory (first in, first out) for buffered storage capacity of at least 128 KB for up to 50 000 readings. ☐
- Data must still be available after being read out. ☐

#### 13.3.4 Enclosure and Housing:

- The data logger interface shall be enclosed as described in paragraph 12. ☐

#### 13.3.5 Power Supply:

- No mains power supplies will be available to power the data loggers. The equipment should be of absolute sensor system with no permanent power supply necessary. ☐
- The logger should operate for at least 1 year with commercially available dry alkaline batteries. ☐
- Easy access for the change of the battery must be assured. ☐

### 13.4 Internal software requirements:

#### 13.4.1 General:

- All software packages shall be written and structured in a high level programming language. To conserve memory space and thus power required, the use of a compiled program is recommended. ☐
- The data logger operating software shall be located in ROM (EPROM) and the Bidder shall be responsible for the provision of all the software required to make a complete, operational system. ☐
- It shall not be possible for the operator of any data logger to accidentally or intentionally destroy the database or data recordings by entering faulty or erroneous instructions or messages. ☐
- The data logger SOFTWARE shall allow the equipment to operate in a completely unattended mode and all reasonable precautions shall be taken in the structuring of the error trapping routines to prevent system hang-up. ☐

#### 13.4.2 Data acquisition:

- The data logger shall operate with a fixed interval logging sequences. ☐

- The water level must be sampled at set intervals. The operators shall however be able to select a fixed interval for sample and storing of the data. ☐
- - Minimum sampling time of 60 seconds; and a
- - Maximum sampling time of 24 hours.

#### 13.4.3 Data storage:

- Data records shall contain the following information:
  - ID number, Time/Date code and measured value. ☐
  - The measured value shall be given in engineering units.
- Data storage shall be done on a circulating storage system, first in - first out. ☐
- The data must be able to be read out as often as desired, without destroying it. ☐
- The memory contents must be retained in the case of a power supply breakdown. ☐

#### 13.4.4 Data display:

- All conversation between the data logger and the operator shall be done via a data reader unit or laptop- , palmtop or Smart Device. /palmtop. ☐

### 13.5 Operators procedures:

#### 13.5.1 Menu-driven procedures:

- All operator activities shall be menu driven from the set-up software: ☐
- Station Settings - must be able to be set:
  - Alphanumeric station ID, with at least 9 digits. eg. A2H010A01 ☐
  - Date and time settings. - Water Level.

#### 13.5.2 Data retrieval:

- Data shall be preferably be retrieved by a laptop- , palmtop or Smart Device. / palmtop, via an infrared data adapter or 9-pin RS 232 and/or USB port. ☐
- The following procedures shall be available to the operator using a laptop- , palmtop or Smart Device. : - View and alter time and date information. ☐

#### 13.5.3 Determination of sampling intervals:

- Procedure:
  - Time Recording:
    - Sample at set intervals:
      - Record each sample or average set of samples and store at set intervals. ☐
      - Minimum of 5 seconds and a maximum of 24 hours, for setting of sample and store intervals.
  - Delta recording for water levels:
    - Compare measured value with previous stored value at set time intervals. If it exceeds the pre-set difference, it must store the value, in addition to the last value. If not, it must ignore the value. Wait for next time interval. ☐

### 13.6 Future Extension:

The Bidder shall make provision in the system to accommodate for future extensions and ensure all future developments to be compatible with the current product for the term of the contract. These developments include Operating Software, Firmware and Hardware extensions. ☐

**14. MULTI-CHANNEL DATA LOGGER WITH CONNECTOR BOX FOR EXTERNAL SENSORS: 4-20 MA (VENTED PRESSURE TRANSDUCER) AND DIGITAL PULSE (RAINFALL); SUBMERSIBLE DATA LOGGER WITH INTERNAL BATTERY AND INTERNAL GSM MODEM**

14.1. Application: ☐

- a) The submersible multi-channel GSM data logging system would be installed at remote gauging stations and used for primary or secondary real-time or backup data collection applications where water levels and rainfall is measured.

14.2. Design and technical details: ☐

- a) The equipment shall be designed to function satisfactorily under the following conditions:

- Operating temperature range: -20°C to 50°C;
- Relative humidity: 100%;
- Submersible: IP67 (or higher):
  - Solid particle protection: Dust tight; and
  - Liquid ingress protection: Immersion, up to 1-meter depth for 30 minutes;

14.3. Multi-channel data logger: ☐

a) Data Processing:

- Only intelligent data loggers, equipped with a microprocessor will be considered.
- The data logger shall be equipped with a CPU watchdog circuit that will automatically restart the system in case of a severe electrical or electromagnetic disturbance.
- The multi-channel GSM data logger must have at least eight channels that can be user configurable to simultaneously record 4-20mA inputs from water level sensors, digital pulse inputs from tipping bucket rain gauges and internal battery voltage of the data logger.
- Build options for up to two pressure, eight (user programmable) digital or analogue inputs and two individually switched 12 Volt outputs for powering 4-20mA loop.
- High frequency pressure transient detection critical to extending asset life and network modelling.
- Facilitates closed loop control of pressure reducing valves, pressure sustaining valves and variable speed pumps.
- Integral movement detection aiding preventative maintenance routines, asset tracking and enhanced data integrity critical for reporting.

b) Real time clock: ☐

- The data loggers shall be equipped with battery backed hardware real time clock system.
- The real time clock system shall provide time (24-hour system) and date information.
- Crystal controlled calendar clock with leap year adjustment Option to synchronise clock to local network at regular intervals

c) Memory: ☐

The data loggers shall be provided with the following types of memory systems:

- Solid state, non-volatile memory for system and station parameters and user defined variables allocable between channels as required (max 64K per channel).
- The memory size: 512K.
- Recording Interval programmable between 1 second and 1-hour.
- Data storage: Rotating store or store until full.
- Supports average and statistical recording of pressure (min, max, mean, standard deviation) over logging interval.
- Battery backed RAM for intermediate data storage and processing. (Minimum 128 KB) Stored data at 12minute intervals more than 2 years if not downloaded.

- d) Power supply: ☐
- Each data logger shall be provided with an internal source that would prevent equipment shutdown or loss of data when the main battery is either disconnected for a short period or exchanged. ( $\pm 12$  minutes)
  - Power for all the sensors will be derived from the internal main battery via the data logger for more than 2 years at an interval of 12 minutes.
  - The logger must have low power consumption on standby mode.
  - The user replaceable internal battery must have a battery life of at least 5 years at an hourly logging interval under the specified operating temperatures.
  - Optional: high capacity external lithium battery pack, user replaceable.
  - The logger should be fitted with an external power input connector where external DC voltage can be supplied if required;
  - The data logger must be reverse polarity protected.
  - The logger must be programmable to log at a fixed rate or multiple logging intervals from 1 minute to 12 hours.
  - High accuracy battery monitoring optimising maintenance and asset management programmes.
- e) Input functions and interfacing: ☐
- Programmable Input range:
    - 0 - 100m (0 - 10 bar); or
    - 0 - 200m (0 - 20 bar):
  - Resolution:
    - $\pm 0.5\%$  or  $\pm 0.1\%$ .
  - In order to conserve power, the data logger shall control the power supply to each sensor. Sensors shall be switched on in sequence and readings taken under processor control. Sufficient warm-up and stabilization time for sensors must be controlled by the logger.
  - During non-measurement periods power supply to the sensors and signal converter units shall be interrupted for all the analogue channels.
  - Full calibration procedures shall be provided for each sensor / signal conditioning unit.
  - Input connectors for sensors shall be clearly labelled, shall be polarized to prevent mismatching of connectors and shall be configured so that no damage can occur if a unit is accidentally or intentionally connected to the wrong input channel. Each connector shall make provision for all the necessary signal lines, earth, 0V and 12V (switched) supplied lines.
  - The data logger will feature an optional integral pressure sensor for connection to the water pressure.
- f) Enclosure and Housing: ☐
- **Only** compact data loggers will be accepted, therefore all electronic components, wiring, etc., will be fixed / mounted inside the logger housing. **No** logger will be considered should the operator need to open the housing to access the keypad, LC Display, Connectors, etc.
  - The data logger shall be enclosed in wall mounted / standing enclosures, for installation in a recorder hut.
  - The data logger shall be designed to operate without degradation under dusty or condensing conditions experienced at sites.
  - The housing shall be manufactured of corrosion resistant material.
  - The data logger / communication unit housing shall not exceed the following dimensions:
    - Height: less than 150 mm;
    - Width: less than 150 mm;
    - Depth: less than 150 mm.
  - The data logger will feature a local full duplex serial communication port for programming the data logger, and for manual downloading of data. The data-logger local communication port should operate at an asynchronous data rate of between 1200 to 38400 Bps.
  - Proven bidirectional communication with automatic gap filling ensuring high level data reliability and

supporting remote product configuration

14.4. Transmission:

14.4.1. GSM Modem ☐

- The data logger shall incorporate a built-in GSM Modem for the purpose of transmitting and receiving data to and from the network.
- The GSM modem shall be a scalable machine to machine (M2M) solution reducing user operating and capital costs.
- The GSM modem shall be easily set-up using innovative optional Wi-Fi communication interface.

14.4.2. GSM Modem Frequency Band ☐

- The GSM Modem shall be dual band and should be capable of operating at frequencies of 900 MHz/1800 MHz or 850 Hz/1900 MHz.

14.4.3. External GSM Modem Antenna: ☐

- The GSM antenna shall be integral to the data logger.
- An external SMA connector must be available for attaching an optional external GSM antenna to the logger to support 2G or 3G frequencies.
- GSM Modem options;
  - External GSM antenna 1:
    - Support 2G and 3G frequencies.
    - Frequency range: 824 – 960 / 1710 – 2170 MHz
    - Gain: 2dBi
    - Impedance: 50 Ohm
    - Cable: 6mm diameter (price per meter), 0 to 10m cable length
    - Connector: SMA.
    - Mounting method: Screw.
  - Or
  - External GSM antenna 2:
    - Support 2G and 3G frequencies.
    - Frequency range: 800 – 2500 MHz
    - Gain: 11dBi
    - Impedance: 50 Ohm
    - Cable: 6mm diameter (price per meter), 0 to 10m cable length
    - Connector: SMA.
    - Mounting method: 38 to 52 mm diameter pole.

14.5. SIM Card Compatibility and Replacement: ☐

- The data logger will permit the fitting and replacement of the SIM card by the user. It should support all current forms of SIM cards in common use by GSM operators.

14.6. Signal Strength Measurement: ☐

- To carry out an installation, the installer will be required to measure the signal strength from the various operators with the product mounted in-situ. In the case of underground locations, this will involve placing the data logger in its anticipated position and measure signal strength with the chamber covers replaced, or in anticipated position in a basement.
- The data logger should therefore have a facility to carry out the unattended recording of signal strength. Subsequent downloading and analysis of the signal strength data then reveals the adequacy of the mounting position, the choice of provider and so on.

14.7. Choice of Operator: ☐

- The data logger will operate with any of the GSM operators' networks.

#### 14.8. Transmission of Data:

- Remote set-up compatibility monitoring and control through locally deployed PMAC software in use by the Hydrology Section for the last 10 years
- The data logger will be programmed to initiate data transmission hourly, daily, weekly or monthly at a user selected time. The logger will assemble the data to be transmitted in the form of packets of suitable length and format to be transmitted as a number of SMS's.
- Data to be transmitted will be any data, which has not been previously sent, or, at the request of the data centre any data recorded from a particular date and time.
- Advanced channel profile and threshold alarms.
- High frequency pressure transient detection critical to extending asset life and network modelling.



### 15. SENSOR FOR WATER LEVEL MEASUREMENT: PRESSURE TRANSDUCER: PIEZO RESISTIVE SENSOR (CERAMIC) WITH 4-20MA OUTPUT.

#### 15.1. Application

- a) The submersible pressure transducer will be used for hydrostatic water level measurement and will be measuring pressure using a vented cable.
- b) Pressure transducers must be capable of measuring water levels from 0 - 100 m, the range of each transducer being determined by the Department and pre-set in the factory. Typical ranges could be: 0 - 1 m; 0 - 2.5 m; 0 - 5 m; 0 - 10 m; 0 - 20 m, 0 - 30 m and >40 m on request.
- c) The pressure transducers must have a high reliability and ensure a large range of application for pressure measurement in all fields of water level measurement.



#### 15.1.1. Design and Technical Details:

##### a) Pressure Transducer housing:

- The housing must be in an all-sealed enclosure and the pressure port must be vented to the atmosphere using a vented cable.
- The transducer housing must be robust, corrosion-resistant, insensitive to impact and vibration and watertight up to at least 70 m of water column. (>70 m on request).
- The opening to the sensor must be protected by a removable threaded cap to allow for maintenance.
- The transducer housing shall preferably not exceed the following dimensions and weight:
  - Length: 500 mm
  - Diameter: 50 mm
  - Weight: 1 kg
  -
- The transducer housing can be fitted with a watertight plug for connection to the transducer cable.



##### b) Pressure Transducer sensor:

- The submersible pressure transducer sensor must be based on a piezo-resistive ceramic pressure sensor element.
- The measuring cell must be chemically and thermally resistant.
- The pressure sensor must have a compensated operating temperature range of -5°C to +70°C.
- The sensor should be calibrated, temperature compensated and provide amplified analogue output signals for 4-20mA output.
- The sensor should have a supply voltage of between 9 to 32V and must have reverse polarity protection.
- The sensor must have a response time of maximum 35 ms with a power consumption not exceeding 250mW. Typical sensor warm-up time must not exceed 2 seconds.
- The sensor proof pressure must be two times the rated pressure range. Proof pressure is the maximum pressure which may be applied without causing damage to the sensing element.



- The pressure sensor must have surge immunity according to EN 61000-4-5 for current output devices with cable lengths longer than 10m.

c) Measuring Accuracy of the Pressure Transducer Sensor: ☐

- The sensor's Non-linearity (Best Straight Line fit), hysteresis (maximum output difference at any point within the operating pressure range for increasing and decreasing pressure) and repeatability must be 0.1 % FSO (Full Scale).

d) Vented transducer cable: ☐

- The vented cable is factory fitted to the submersible pressure transducer housing and the length of cable for each submersible pressure transducer are being determined by the Department during procurement.
- The pressure transducer and transducer cable shall be designed to function satisfactorily with a cable length of up to 250 m.
- Flexible with Polyurethane jacketing material for corrosive media and maximum outer diameter 12 mm.
- Double sheathing with interposed tinned copper- braiding shielding with polyester with polyester film to cover the vented tube and all connectors.
- There must be filler between the conductors and vent tube and all conductors must be of tin copper.
- As the transducer cable shall be used as the carrying rope, it shall preferably feature, for longitudinal stability, an internal Kevlar core assembly, or equivalent.
- A polyamide pressure-compensation capillary tube for measuring the reference pressure, with an inside diameter of preferably 3 mm, but not less than 1,0 mm.
- End of cable connected by terminal box with hydrophobic filters and exchangeable humidity absorber.
- A fixing clamp for exact positioning of the pressure probe in a stilling well or tube must be available, manufactured of non-corrosive material.

**16. SENSOR FOR WEATHER MEASUREMENT: RAIN GAUGE, TIPPING BUCKET WITH INTEGRATED SYPHON MECHANISM (HIGH LEVELS OF ACCURACY), FOR LOW RAINFALL EVENTS, POWDER COATED ALUMINIUM/ ASA POLYMER:**

16.1. Application: ☐

- The tipping bucket rain gauge is recognised as the standard for measuring rainfall and other precipitation in remote and unattended locations.
- It has an integrated syphon mechanism delivers high level accuracy.

16.2. Design and technical details: ☐

- Unit should consist of collector funnel and integrated siphon control mechanism, an outer enclosure with quick release fasteners and base which houses the tipping bucket mechanism.
- The catchment enclosure must be manufactured from powder coated aluminium and the catchment base from UV-resistant ASA Polymer.
- Operating temperature range to be at least between 4°C to +70°C,
- Depending on the needs, the size of the opening should be 200 mm diameter or smaller.
- The minimum depth of rainfall to be measured will be either 0.5 mm, 0.2 mm or 0.1 mm.
- The rain gauge should be able to measure an intensity of at least 0-400 mm/h.
- The accuracy of the unit shall be better than 7% for 150 – 200mm/hr.
- An optional data logger can be offered with a download option via laptop, palmtop or Smart Device. and data transmission unit using a RS 232 and/or USB interface or with an impulse output, for the data loggers as specified in this document.
- Spares and accessories i.e., a warm-up device must be offered as an optional extra.
- A calibration certificate shall be produced by the manufacturer with delivery of the item.

#### PHASE 5: POINTS AWARDED FOR PRICE AND B-BBEE STATUS LEVEL OF CONTRIBUTION

During this phase, bidders will be further evaluated based on 80 points for price and 20 points for attaining the points awarded for BBBEE in accordance with the table indicated in SBD 6.1.

Evaluation element	Weighting (Points)
POINTS AWARDED FOR BBBEE	20
PRICE	80
Total	100

The 80/20-point system will be used in evaluating all proposals.

##### Price

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

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

Where:

- $P_s$  = Points scored for the comparative price of a bid under consideration  
 $P_t$  = Comparative price of a bid under consideration  
 $P_{\min}$  = Comparative price of lowest acceptable bid

##### Preference Point System (BBBEE Status Level of Contribution)

In terms of Regulation 5(2) and 6(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 (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-Compliant contributor	0

**Description of quantities required**  
**All Regions**

Item Nr	Description	Quantity
1.	<b>Single-channel data logger</b> with integrated Pressure Transducer without LC display with Vented Transducer Cable	15
	<b>Vented Transducer Cable</b> (Total meters required)	269
1.1.	<b>Accessory: USB converter communication cable</b> to enable configuration of the equipment via laptop-, palmtop or Smart Device	18
2.	<b>Multi-channel data logger with connector box</b> for external sensors: 4-20 mA (vented pressure transducer) and digital pulse (rainfall); <b>Submersible data logger with internal battery and internal GSM modem</b>	236
2.1.	<b>Accessory: USB converter communication cable</b> to enable configuration of the equipment via laptop-, palmtop or Smart Device	18
3.	<b>Sensor for Water Level Measurement:</b> Pressure Transducer: Piezo resistive sensor (Ceramic) with 4-20mA output.	
3.1.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-1m</b> range)	38
3.2.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-2m</b> range)	6
3.3.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-5m</b> range)	20
3.4.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-6m</b> range)	5
3.5.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-7m</b> range)	4
3.6.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-8m</b> range)	1
3.7.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-10m</b> range)	225
3.8.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-15m</b> range)	5
3.9.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-16m</b> range)	2
3.10.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-18m</b> range)	1
3.11.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-20m</b> range)	21
3.12.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-25m</b> range)	4
3.13.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-30m</b> range)	17
3.14.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-35m</b> range)	1
3.15.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-40m</b> range)	8
3.16.	Sensor for Water Level Measurement: <b>Pressure Transducer:</b> Piezo Resistive Sensor (Ceramic) with 4-20mA Output ( <b>0-60m</b> range)	1
3.17.	<b>Vented Transducer Cable</b> (Total meters required)	10759
4.	<b>Sensor for Weather Measurement: Rain gauge:</b> 0,2mm tipping bucket with integrated syphon mechanism (high levels of accuracy), for low rainfall events, powder coated aluminium/ ASA Polymer	43
5.	<b>External GSM Modem antennae (0 to 10m cable)</b>	75

**Conditions:**

- Bidders are kindly requested to submit original only
- Bidders are required to submit a copy of the valid B-BBEE Status Level Verification Certificates together with their bids, to substantiate their B-BBEE rating claims.
- Fraudulent practices shall result in immediate disqualification.
- It is a requirement that bidders who do business with government must comply to the relevant tax legislations and bidders are required to ensure that their Tax Matters are in order and up to date. The Department may invalidate your bid should it find that your Tax Compliant Status (TCS) is not in order.
- DWS reserves the right to not award the bid should suitable bidders not be identified.
- It is a condition that the DWS further reserves the right to award the bid to multiple service providers for the respective items. The awarding of the bid is not limited to a single bidder. The awarding can be done to different bidders for different items offered.

**For technical enquiries contact:** Mr Chris Lloyd, 051-405-9248 082 827 5287 Email: [LloydC@dws.gov.za](mailto:LloydC@dws.gov.za)



# water & sanitation

Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA

**this template must be  
completed by the bidder**

TENDER NUMBER		
SERVICE /PROJECT DESCRIPTION		
NAME OF BIDDER		
TENDER AMOUNT		
BBBEE LEVEL		
<b>COMPANY'S COMPOSITION OF EXISTANCE</b>		
	% OWNERSHIP	TOTAL NUMBER
WOMEN		
PEOPLE WITH DISABILITIES		
BLACK MALES		
YOUTH		
<b>PARTICIPATION IN PROJECT IMPLEMENTATION</b>		
	TOTAL NUMBER	LEVEL OF PARTICIPATION (eg Project Management, Technical, Administrative)
WOMEN		
PEOPLE WITH DISABILITIES		
BLACK MALES		
YOUTH		

**Please note that this information is for reporting purposes only, and will not prejudice the company in anyway nor will it be considered as an evaluation tool.**

Name:.....

Position:.....

Signature:.....Date:.....