

# DEPARTMENT OF WATER AND SANITATION REPUBLIC OF SOUTH AFRICA

**DUE AT 11:00 ON** 

(CLOSING DATE: 06 AUGUST 2021)

## **BID DWS 03-0621 WTE**

THREE YEAR TERM CONTRACT FOR MECHANICAL AND OTHER RELATED MAJOR PLANT AND MACHINERY INSTALLATION, MAINTENANCE, REPAIR, REFURBISHMENT AND UPGRADE FOR CENTRAL OPERATIONS (FREE STATE, GAUTENG, KWAZULU-NATAL, MPUMALANGA, AND NORTHERN CAPE)

## **SUBMIT BID DOCUMENTS TO:**

POSTAL ADDRESS:

DIRECTOR-GENERAL:
ENTRANCE
WATER AND SANITATION
BUILDING
PRIVATE BAG X313
STREET
PRETORIA, 0001

TO BE DEPOSITED IN:
THE BID BOX AT THE
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Compulsory briefing sessions: (Bidder must attend at least one briefing session)

Venue: Vanderkloof dam (near Petrusville in Northern Cape)

Date: 02 July 2021 Time: 10:00am

Venue: Grootdraai dam (near Standerton in Mpumalanga)

Date: 06 July 2021 Time: 10:00am

BIDDER: (Company Address OR Stamp)

COMPILED BY: INFRASTRUCTURE OPERATIONS AND MAINTENANCE

## **BID DWS 03-0621 WTE**

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THE DEPARTMENT OF WATER AND SANITATION (DWS) RESERVES THE RIGHT TO APPOINT OR NOT TO APPOINT ANY BIDDER OR ACCEPT ANY BID.

DWS RESERVES THE RIGHT TO CANCEL THE TENDER PROCESS IF THERE ARE ANY REASONABLE AND RATIONAL REASONS, IN LINE WITH RELEVANT REGULATIONS.

#### T1.1 Tender Notice and Invitation to Tender

## Standard Tender Notice and Invitation to Tender

The National Department of Water and Sanitation (DWS) invites tenders for A Three Year Term Contract for Mechanical and Other Related Major Plant and Machinery Installation, Maintenance, Repair, Refurbishment and Upgrade for Central Operations (Free State, Gauteng, KwaZulu-Natal, Mpumalanga, and Northern Cape)

It is estimated that tenderers must have the following CIDB contractor grading:

- Free State (Bloemfontein) Office CIDB contractor grading of 7 ME or higher.
   Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.
- Tugela Vaal Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.
- 3. Usutu River Office CIDB contractor grading of **7 ME or higher**. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of **EP**.
- 4. Usutu Vaal and Vaal Dam Office CIDB contractor grading of **7 ME or higher**. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of **EP**.

If the Tenderer wishes to bid for more than one area, the Tenderer cannot use the same resources.

The bid documents are accessible and may be downloaded from the eTender portal.

Documents may be downloaded from the Employer's website from https://www.dws.gov.za/Tenders/tendersCurrent.aspx.

A compulsory clarification meeting with representatives of the Employer will take place in two (2) departmental operational area offices within the Republic of South Africa at:

- 1. Vanderkloof dam (Northern Cape Province) on <u>02 July 2021</u> starting at 10:00am hrs.
- 2. Usuthu Vaal Area Office at Grootdraai Dam in Standerton (Mpumalanga Province) on <u>06 July 2021</u> starting at <u>10:00am</u> hrs.

The closing time for receipt of tenders is  $\underline{06}$  August  $\underline{2021}$  hrs on  $\underline{11:00am}$  Telegraphic, telephonic, telex, facsimile, e-mail and late tenders will not be accepted.

Tenders may only be submitted on the tender documentation that is issued.

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

## T1.2 Tender Data

## T1.2.1 Instructions to Bidders

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#### REPUBLIC OF SOUTH AFRICA

#### **INSTRUCTIONS TO BIDDERS**

#### **DEPARTMENT OF WATER AND SANITATION**

1. All recipients of these bid documents, whether they submit a Bid or not, shall treat the details of the documents as PRIVATE AND CONFIDENTIAL.

#### 2. ISSUE OF DOCUMENTS

The bid documents are accessible and may be downloaded from the eTender portal.

Documents may be downloaded from the Employer's website from https://www.dws.gov.za/Tenders/tendersCurrent.aspx.

Any amendments to published bid documents will be uploaded to the Departmental website https://www.dws.gov.za/Tenders/tendersCurrent.aspx.

#### 3. ADDITIONAL INFORMATION

3.1 Bidders are referred to Government Procurement General Conditions of Contract - obtainable from the office of the Division: Supply Chain Management (WTE), Private Bag X 313, Pretoria, 0001, and which shall be regarded as an integral part of these bid documents.

This bid is governed by the General Condition of Contract for Construction works 3rd edition 2015, as published by the South African Institute of Civil Engineering (SAICE) shall apply unless they are in conflict with any portion of the instructions of Bidders, Government Procurement Conditions of Contract, Specifications, Appendices, Annexures, and Schedules of this enquiry document, in which case this enquiry document shall take precedence.

The conditions contained in Government Procurement General Conditions of Contract shall apply unless they are in conflict with any portion of the Instructions to Bidders, Conditions of Contract, Specifications, Appendices, Annexures, and Schedules of this enquiry document, in which case this enquiry document shall take precedence.

Bidders are also referred to the Departmental General Conditions of Contract as more fully explained under "TENDER DATA".

3.2 Bidders shall acquaint themselves with the nature of the Site, rail facilities and road conditions and with all conditions and circumstances that may affect their Bids, and shall be deemed to have knowledge thereof.

If an official site inspection is to be held, it will be specified in the Project Specification, and the site inspection certificate included in these documents shall be completed.

3.3 If any additional information is required as to the interpretation of any part of this enquiry, immediate application should be made to the Employer's Agent.

## 4. CONDITIONS OF CONTRACT

4.1 All Bidders shall be deemed to have waived, renounced and abandoned any conditions printed or written upon any stationery used by them for the purpose of or in connection with

the submission of bids which are in conflict with the conditions laid down in the Bid Documents.

- 4.2 No alteration, amendment or variation of the Conditions of Contract will be permitted and, in the event of any such alterations, amendments or variations being stipulated as a Condition of Bid by the Bidder, the Bid will be rendered invalid and will not be considered.
- 4.3 Bidders shall comply strictly with the Conditions of Contract, Enquiry Specification, Appendices, Annexures, Schedules and Forms forming this enquiry document. Bids which, in the opinion of the Employer, do not so comply will not be considered in the selection of the successful Bidder.
- 4.4 Details of all departures from, or modifications to the Specification, in the case of alternative Bids, shall be clearly stated in the form "Proposed Amendments and Qualifications".

#### 5. **GENERAL REQUIREMENTS**

5.1 Wherever required the Bidder shall state all statutory costs included in his bid price. The Contract will not be exempt from ruling Value Added Tax.

Bidders shall allow in their Bids for all labour, materials, machinery and everything necessary for the execution and completion of the Contract in accordance with the Bid Documents. No alteration may be made in the Standard Bidding Document Forms (SBD forms), Price Schedules or other documents, and the Bid will be deemed to comply entirely with the terms of the documents.

An addition to the Price Schedules is permissible to cover any item which the Bidder regards as technically essential and which he considers has otherwise been omitted from the Schedule. Full technical details shall be given in a covering letter.

- 5.2 The Bidder shall give details in the Annexure to Price Schedules of all importing costs on which the Contract Price is based together with a schedule of importing charges and rates of exchange ruling at the date of bid.
- 5.3 Bidders may submit with their Bid a statement of work previously carried out by them, to facilitate the adjudication of the Bid, by completing Annexure 1.
- 5.4 Bidders shall submit with their Bids the names and addresses of the principal Subcontractors which they propose to employ and the section of the Works on which they would be employed by completing Annexure 2.
- 5.5 Notwithstanding any information that may be contained in any covering letter, Maker's specification, technical literature, or other documents accompanying the Bid, the attached Schedules shall be completed in full at the time of bidding.

All spaces in the Departmental Forms and other Annexures shall be completed in full. The Price Schedules annexed shall be fully priced out and the summary thereof filled in on the Bid Form SBD 3.2.

The Form of Offer and Acceptance, Form of Performance Guarantee are NOT to be completed at the time of bidding.

The bid documents shall NOT be separated in any way nor shall any pages be detached from the original documents.

- 5.6 Within 4 weeks of receipt of order, the successful Bidder shall submit a detailed Program of Works.
- 5.7 The bid offer shall comprise two copies of the following:
- 5.7.1 Bidder's covering letter, if any, otherwise Bidder's name and address.
- 5.7.2 All data sheets, illustrative literature and Bidder's drawings as required by these bid documents.
- 5.7.3 These bid documents, duly completed in full and signed as required in clause 7 of these instructions.

#### 6. PREFERENCE FOR GOODS MANUFACTURED OR ASSEMBLED LOCALLY

6.1 Bidders are required to state, in the appropriate SBD 6.2 Form and supporting documents; the value of plant, equipment or components manufactured in South Africa to enable the relevant preference for locally manufactured goods to be allowed, in the adjudication of Bids. Refer to the "local production and content for designated sectors" phase of the evaluation criteria.

#### 7. **SIGNATURES**

- 7.1 The Bid shall be signed on all SBD Forms and wherever else indicated on the forms annexed hereto with all blanks in the Bid, Appendices, Annexures and Schedules filled in.
- 7.2 The Bid, if by an individual, shall be signed by that individual or by someone on his behalf duly authorised thereto and proof of such authority must be produced. If the Bid is by a company it shall be signed by a person or persons duly authorised thereto by a Resolution of a Board of Directors, a copy of which Resolution, duly certified by the Chairman of the Company shall be submitted with the bid documents. If the Bid is submitted by a joint venture of more than one person and/or companies and/or firms it shall be accompanied by the following:
- 7.2.1 The original or a certified copy of the original document under which such joint venture was constituted which must define precisely inter alia the conditions under which the joint venture will function, its period of duration and the participation of the several constituent persons and/or companies and/or firms.
- 7.2.2 A certificate signed by or on behalf of each participating person and/or company and/or firm authorising the person who signed the Bid to do so.

#### 8. SUBMISSION

- 8.1 The bid offer shall be submitted as follows:
- 8.1.1 The original Bid, together with all accompanying letters and literature, shall be sealed in an envelope or sealed packaging endorsed with the title and bid number stated on the front cover of these documents and marked:

#### "Original Bid".

The name of the Bidder shall be clearly shown.

8.1.2 The duplicate copy of the Bid (if required) shall be sealed in a separate envelope or sealed packaging together with duplicate copies of accompanying letters and literature and endorsed with the title and bid number stated on the front cover of these documents and marked:

## "Duplicate of Original Bid".

## The name of the Bidder shall be clearly shown.

8.1.3 Both the "original" and "duplicate" copies of the Bid, each in their separate sealed envelopes or sealed packaging shall be placed in a single sealed envelope or sealed packaging endorsed with the title and bid number stated on the front cover of these documents.

## The name of the Bidder shall be clearly shown.

- 8.2 Bids in duplicate, sealed and endorsed as above will be received by the Department <u>up to</u> 11:00 on the due date and address as stated on the front cover of these documents.
- 8.3 The additional copy of the Bid Documents may be retained by the Bidder for his records.
- 8.4 Bids by email or fax will not be accepted. Late Bids will be rejected.
  - NOTE: Bidders are strongly advised to deliver Bids well before the deadline, as under NO CIRCUMSTANCES will any late Bid be accepted.
- 8.5 The successful bidder will be required to submit a "Letter from the Workshop Owner" confirming the working arrangement within 14 days after the receipt of a "Letter of Notification to Bidder" from this Department. Failure to comply with this requirement within 14 calendar days shall result in the bid being awarded to another bidder.

#### 9. **ADJUDICATION**

- 9.1 Bids shall hold good and remain valid for acceptance for a period of 120 days commencing as from the closing time and date for bid offers.
- 9.2 Arithmetical or other patent errors in the bid shall be managed as per the CIDB Inform Practice Note No. 2 of 2006 Correcting Arithmetic Errors in Tenders.
- 9.3 The Employer does not bind himself to accept the lowest or any Bid nor to assign any reason for the rejection of a Bid and may if he so desires divide the Contract between any two or more Bidders and will not be held liable for any expense incurred in submitting Bids.
- 9.4 The Bidder shall, within 7 days from the date on which he was requested to do so, submit a full report on his financial standing from his banker. The Department may, in its discretion, condone any failure to comply with the foregoing condition.

The Department also reserves the right to approach the Bidder's banker or guarantor(s) as indicated in the bid document, with a view to ascertaining whether the required guarantee will be furnished.

#### 10. **DISQUALIFICATION OF BID**

The Bid document must be completed in full. Failure to none completion of any item(s) in the Bid document will constitute a disqualification of the Bid.

#### 11. ADJUDICATION OF THE CONTRACT

The Department reserves the right to award the contract to one Bidder per Operational Area Office.

#### 12. EVALUATION CRITERIA

The 90/10 preference points system as prescribed in the Preferential Procurement Regulations, 2017 Pertaining to the Preferential Procurement Policy Framework Act, (ACT NO 5 OF 2000) (PPPFA) will be applied to evaluate this bid. The lowest acceptable bid will score 90points for price and a maximum of 10points will be awarded for attaining the Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution. Bids received will be evaluated on the seven (7) phases namely Mandatory requirements, Compulsory Subcontracting, Administrative Compliance, Local Production and Content, Functionality Compliance, Workshop Evaluation and Price and Preference Points Claimed.

Which Central Operations' Area Office are you bidding for?	

#### PHASE 1: MANDATORY REQUIREMENTS

Failure to submit any of the documents listed below will render your bid non-responsive and will be disqualified.

No	Criteria	Yes	No
1.	Compulsory Briefing Session Certificate. Attendance to also be verified on the attendance register.		
2.	Proof of Active registration grading with the Construction Industry Development Board: (CIDB) attach valid proof of registration		
3.	For <b>Free State (Bloemfontein) Office</b> CIDB contractor grading of <b>7 ME or higher</b> .		
4.	For <b>Tugela Vaal Office</b> CIDB contractor grading of <b>7 ME or higher</b> .		
5.	For <b>Usutu River Office</b> CIDB contractor grading of <b>7 ME or higher</b> .		
6.	For <b>Usutu Vaal and Vaal Dam</b> Office CIDB contractor grading of <b>7 ME or higher</b> .		
7.	Schedule of demonstrable experience in associated electrical work or bidder should subcontract a CIDB contractor with grading of EP		
8.	Sub-contracting agreement		
9.	Where Bidders are responding as Joint Venture (J/V) or consortium, a signed JV Agreement / Association Agreement between both parties with clear indication of the lead partner should be submitted		
10.	Professional Mechanical Engineer (active registration with ECSA). Attach proof of Professional Registration from ECSA.		
11.	A valid letter of Good Standing with the Compensation Commissioner in terms of the Compensation for Occupational		

No	Criteria	Yes	No
	Injuries and Diseases Act No 130 of 1993 and or third parties		
	insurance registered with Financial Service Board. (verification		
	will be done with the relevant authority)		
12.	A copy of a valid UIF certificate of compliance or copy of a valid		
	letter of good standing/ tender letter. (verification will be done		
	with the Department of Labour)		

### PHASE 2: COMPULSORY SUBCONTRACTING

## Preferential Procurement Regulations, 2017, regulation 9

To give effect to the Preferential Procurement Regulations, 2017 pertaining to the Preferential Procurement Policy Framework Act (Act No 5 of 2000), the prequalification criteria in terms of Regulation 9 will be applicable

Only bidders who have a 30% **signed** sub-contracting agreement with EMEs or QSEs which are 51% owned by either black women; black youth; black people with disability will be considered as preferred target for the department, however should either preference of three target groups of department not be achieved during evaluation process either groups( black owned; black people living in rural or underdeveloped areas or townships; cooperative owned by black people; black people who are military veterans) will be considered for this bid. Verification documentation to be submitted to confirm 30% subcontracting compliance requirements (failure to submit the supporting documents, the Bidder will be disqualified)

It is required that bidders select sub-contractors from the CIDB database who are registered on the CSD for the purposes of compliance with the minimum 30% sub-contracting provisions.

#### • Bidders must submit the following:

- a) A list and contact information of subcontractors to be subcontracted (as and when required) in order to meet the 30% minimum subcontracting requirement.
- b) CSD Report of Subcontractors (Tax matters must be in order; information will be verified on CSD).
- c) Subcontractors' Proof of active status on CIDB
- d) Subcontractors' registration certificate issued by Companies and Intellectual Property Commission (CIPC), to be verified by CSD.
- e) Bidders shall submit a signed pro-forma subcontracting agreements between the main contractor and the subcontractor with this bid.

Failure to submit the above listed information shall render your bid non-responsive and will be disqualified.

The sharing of subcontractors (other than specialist subcontractors) is not allowed in this bid.

Main contractors are not allowed to subcontract with their subsidiary companies.

## **PHASE 3: 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 MAAA number on SBD1		
2	Tax compliant with SARS (to be verified through CSD and SARS). Attach		
	a copy of Tax Compliance status PIN.		
3	Active registration with Company Intellectual Property Commission (to be		
	verified through CSD and CIPC). Attach copy of CIPC / CIPRO certificate.		
4	A valid, original sworn affidavit or a valid, original or certified copy of B-		
	BBEE status level verification certificate (failure to submit on the closing		
	date of the bid, the bidder will forfeit the preferential points to be claimed).		
5	The Bid must be signed by a director of the company or a duly		
	authorised person, and proof of such authority must be submitted with		
	the bid.		
6	Complete, sign, submit SBD 1, SBD 3.2, SBD 4, SBD 6.1, SBD 8, SBD 9		

## **PHASE 4: LOCAL PRODUCTION AND CONTENT**

- (a) Local production and content SBD 6.2 Annexures (C, D, E) will only be a compliant requirement at the stage of actual procurement when the actual sizes of the designated product/items are specified under a particular project.
- (b) For bidding purposes bidders must indicate compliance to designated items as listed on each table.
- (c) A bidder will be disqualified if they fail to confirm in the bid document that they will comply with the threshold percentage of the designated items.

## **VALVES**

	DESCRIPTION OF ITEM				MINIMUM THRESHOLD	Comply	Not Comply
	Types of Valves	Pressure type	Size	Pressure Rating (or imperial equivalent)	% Local Content per unit		
1.	Check valves (Non-Return	Low pressure	80mm – 3500mm	PN6-PN25	70%		
	valves, Reflux valves, Tilting Disk valves, Double Door, Multi Door, Swing Check)	High pressure	80mm – 2500mm	Class 150-1500 Metric PN25- PN250	70%		
2.	Butterfly Valves (Rotating Disk	Low pressure	80mm – 3500mm	PN6-PN25	70%		
	valves, Rotary Control valve, Quarter Turn	High pressure	80mm – 3500mm	Class 150-1500 Metric PN25- PN250	70%		

	DESCRIPTION OF ITEM				MINIMUM THRESHOLD	Comply	Not Comply
	Types of Valves	Pressure type	Size	Pressure Rating (or imperial equivalent)	% Local Content per unit		
	Gate valve)						
3.	Ball Valves (Spherical valves,	Low pressure	20mm- 300mm	PN10-PN25	70%		
	Rotary valves)	High pressure	20mm- 600mm	Class 150-4500 Metric PN25- PN450	70%		
4.	Gate Valves (RSVs, Wedge	Low pressure	15mm- 1800mm	PN6-PN25	70%		
	Gates, Sluice valves, Parallel Slides, Penstocks, Bonnet Gates, Scour valves)	High pressure	80mm- 1800mm	Metric PN25- PN100	70%		
5.	Diaphram Valves (Slurry valve or Saunders valve)	Low pressure	15mm- 350mm	PN10, PN16 & PN25	70%		
6.	Knife Gate Valves	Low pressure	40mm- 1200mm	PN10 & PN16	70%		
7.	Safety or Relief Valves (Pressure valve or Vacuum valve)	Low pressure	15mm-32mm	PN16	70%		
8.	Taps, Cocks	Low pressure	Full range	N/A	70%		
9.	Pneumatic Actuators – Double acting (Vein type, Linear type, Scotch Yolk type, Rotary type, Double Crank type, Rack and Pinion type)	Low pressure	~392 000nm torque	N/A	70%		
10.	Pneumatic Actuators – spring return (Vein type, Linear type, Scotch Yolk type, Rotary type, Double Crank type, Rack and Pinion type)	Low pressure	~215 000nm torque	N/A	70%		
11.	Manual Actuators (Gearboxes)	Low pressure	~200 000nm torque	N/A	70%		
12.	Fire Hydrants (Underground) Fire Deluge valve	Low pressure	65mm inlet	PN16	70%		
13.	Pressure Reducing Valve (PRV) (Self- Regulating valve)	Low pressure	Full range	Full range	70%		

	DESCRIPTION OF ITEM				MINIMUM THRESHOLD	Comply	Not Comply
	Types of Valves	Pressure type	Size	Pressure Rating (or imperial equivalent)	% Local Content per unit		
14.	Plug valves (excluding	Low pressure	20-600mm	PN10-PN26	70%		
	expanding plug valves) (Double Block & Bleed valve)	High pressure	20-600mm	PN25-PN100			
15.	Control Valve (Globe Control	Low pressure	25-600mm	PN10-PN25	70%		
	valve, Piston Type Control valve)	High pressure	25-600mm	Class 150-4500 Metric PN25- PN750			
16.	Air Valve (Vacuum release	Low pressure	50-300mm	PN10-PN25			
	valve)	High pressure	50-300mm	PN25-PN40			
17.	Pinch valve (slurry valve)	Low pressure	50-800mm	PN10-PN40			
18.	Disc Valve	Low pressure	50-600mm	PN10-PN16			
19.	Sleeve (Fixed Cone valves, Discharge valves, Scour valves, Howell Bunger valves, Energy Dissipating valve)	Low pressure	Full range	PN10-PN25			

## **ELECTRICAL CABLES**

	ELECTRICAL	CABLE PRODUCTS	STIPULATED MINIMUM THRESHOLD	Comply	Not Comply
	CATEGORY	TYPE	THRESHOLD		
1.	Low Voltage	Housewire, Flat Twin and Earth, Surface Cable, Rip Cord, Cab Tyre, Bells Cable, 1,5mm² – 16mm² 2-37 cores, Fire Retardant, Low Halogen and Low Smoke Zero Halogen (LSOH)  Main Cable  25mm² – 100mm², 1-4 cores, Fire Retardant, Low Halogen and Low Smoke Zero Halogen (LSOH), Flexible Cables, Aerial Cables, ACSR, Split Concentric & Aerial Bundled Conductor (ABC).	90%		
2.	Medium Voltage	3,3KV – 22KV, 1-3cores, Cross linked Polyethylene (XLPE) and Paper Insulated Lead Covered (PILC), Fire Retardant, Low Halogen and Low Smoke Zero Halogen (LSOH).	90%		
3.	High Voltage	132KV, Single Core, Corrugated Seamless Aluminium (CSA) Sheathed	90%		
4.	Copper Telecommu nication Cables	Standard and high frequency (ADSL) outside plant copper pair telecoms cables (10 pair up to 240 pair), Indoor, PABX and high frequency (DSLAM) copper pair telecoms cables up to 200 pair, Category 6 copper data cables.	90%		
5.	Copper Industrial Cables	Railway signaling copper cables, Electrical signaling copper cables, Steel wire armoured copper telecoms cables, UVG copper control cables for electrical utilities, Fire Alarm and control copper cables.	90%		
6.	Copper Instrumenta tion Cables	Thermocouple extension wire, Tray and direct buried instrumentation and control copper cables compliant to SABS, UL and BS standards accreditation.	90%		
7.	Fibre Optic Telecommu nication Cables	Outside plant duct fibre optic cables up to 288 Fibre count, Aerial (short span, medium span and long span) self-support fibre optic cables up to 144 fibre count applications up to 144 fibre count	90%		
8.	Fibre Optic Industrial Cables	Metallic armoured instrumentation and control fibre optic cables, Steel wire armoured mineshaft fibre optic cables, field deployable high durability fibre optic cables, Composite (fibre optic and copper core) cables.	90%		

## **TRANSFORMERS**

	TRANSFORMERS (classes)	Power Rating, MVA (Range)	Voltage Rating, kV (Range)	% Local Content threshold	Comply	Not Comply
				01/01/2020		
1.	Class 0	0.001 to 1	220V to 22	90%		
2.	Class 1	1.25 to 160	11 to 132	80%		
3.	Class 2	40 to 315	220 to 275	80%		
4.	Class 3A	360 to 500	220 to 275	80%		
5.	Class 3B	40 to 1000	320 to 400	80%		
6.	Class 4	40 to 2000	>420 to 800	20%		

7.	Components and Manufacturing processes for Class 0	%Local content from the Effective Date	Comply	Not Comply
a)	Fabrication <sup>1</sup> of the tank and parts	100%		
b)	Fabrication of the core <sup>2</sup>	100%		
c)	Manufacture <sup>3</sup> of windings and assembly	100%		
d)	Manufacture of bushings	100%		
e)	Off-circuit tap switch	100%		
f)	Oil (i.e. blending, processing and handling)	100%		
g)	Accessories Category A:  Radiators Fans Kiosks Oil conservator Breather canisters	100%		
h)	Accessories Category B:  Valves Cables	70% (by the valves instruction) 90% (by the cables instruction)		
i)	Assembly and Testing	100%		

<sup>&</sup>lt;sup>1</sup> Fabrication of the tank includes cutting, welding, sand-blasting and painting processes
<sup>2</sup> Fabrication of the core includes sizing, slitting, cutting, stacking and clamping processes.
<sup>3</sup> Manufacture of windings includes rolling, sizing and insulation

8.	Components and Manufacturing	%Local Content	Comply	Not Comply
	processes for Class 1	From 01/01/2018		
a)	Fabrication of the tank and parts	100%		
b)	Fabrication of the core	100%		
c)	Manufacture of windings and assembly	100% (Conductors localised)		
d)	Oil (i.e. blending, processing and handling)	100%		
,	Accessories Category A:  Radiators Fans Kiosks Oil conservator Breather canisters	100%		
f)	Accessories Category B: Valves Cables	70% (by the valves instruction) 90% (by the cables instruction)		
g)	Assembly and Testing	100%		

9.	Components and Manufacturing	%Local Content	Comply	Not Comply
	processes for Class 2	From 01/01/2018		
a)	Fabrication of the tank and parts	100%		
b)	Fabrication of the core	100%		
c)	Manufacture of windings and assembly	100% (Conductors localised)		
d)	Oil (i.e. blending, processing and handling)	100%		
e)	Accessories Category A:  Radiators Fans Kiosks Oil conservator Breather canisters	100%		
f)	Accessories Category B:  Valves Cables	70% (by the valves instruction) 90% (by the cables instruction)		
g)	Assembly and Testing	100%		

10.	Components and Manufacturing processes for Class 3	%Local Content	Comply	Not Comply
		From 01/01/2020		
a)	Fabrication of the tank and parts	100%		
b)	Fabrication of the core	100%		
c)	Windings processes	100% Manufacture of		
		windings and assembly		
		inclusive of conductors		
		localised		
d)	Oil (i.e. blending, processing and handling)	100%		
e)	Accessories Category A:	100%		
	Radiators Fans Kiosks Oil conservator Breather canisters			
f)	Accessories Category B:			
	Valves Cables	70% (by the valves instruction) 90% (by the cables instruction)		
g)	Assembly and Testing	100%		

11.	Components and Manufacturing	%Local Content	Comply	Not Comply
	processes for Class 4	From 01/01/2020		
a)	Winding Conductor	100%		
b)	Oil (i.e. blending, processing and handling)	100%		
c)	Accessories Category A:	100%		
	Radiators			
	Fans			
	Kiosks			
	Oil conservator			
	Breather canisters			
d)	Accessories Category B:			
	Valves	70% (by the valves		
	Cables	instruction)		
		90% (by the cables instruction)		

12.	SHUNT REACTORS (classes)	Reactive Power Rating, MVAr (Range)	Voltage Rating, kV (Range)	% Local Content threshold	Comply	Not Comply
				01/01/2020		
a)	Class 1	= 80 MVAr</td <td>11kV to 132kV</td> <td>80%</td> <td></td> <td></td>	11kV to 132kV	80%		
b)	Class 2	>80 MVAr	132kV to 275kV	80%		
c)	Class 3	100MVAr – 250 MVAr	>275kV – 420kV	80%		
d)	Class 4	>100MVAr	>420kV – 765kV	20%		

## **RADIO**

RADIO	Components and manufacturing processes against which		Comply	Not Comply
TERMINAL	the overall local content must			
	Components and	% local content from		
	manufacturing processes	04/2017		
	Controls	100%		
	Display	20%		
	Interfaces	40%		
	Data Module	50%		
	Radio Module	50%		
	RF Amplifier	100%		
	Antenna	100%		
	Battery	30%		
1.	Charger	50%		
Portable	Assembly and testing of the	100%		
Radio	fully-built unit	000/		
	Position Module	30%		
	Power Supply	70%		
	Connectors	25%		
	Enclosure	90%		
	Embedded Custom Software	90%		
	Software Libraries	-		
	Total minimum local content (per unit)	60%		

RADIO TERMINAL	Components and manufacture the overall local content must	ring processes against which st be discharged	Comply	Not Comply
	Components and manufacturing processes	% local content from 04/2017		
	Controls	100%		
	Display	20%		
	Interfaces	40%		
	Data Module	70%		
	Radio Module	70%		
2.	RF Amplifier	70%		
∠. Mobile	Antenna	100%		
Radio	Battery	25%		
Naulo	Charger	70%		
	Assembly and testing of the fully-built unit	100%		
	Position Module	50%		
	Power Supply	50%		
	Connectors	25%		

RADIO TERMINAL	Components and manufacturing processes against which the overall local content must be discharged		Comply	Not Comply
	Components and manufacturing processes	% local content from 04/2017		
	Enclosure	90%		
	Embedded Custom Software	90%		
	Software Libraries	-		
	Total minimum local content (per unit)	60%		

RADIO TERMINAL	Components and manufactur the overall local content must		Comply	Not Comply
	Components and	% local content from		
	manufacturing processes	04/2017		
	Controls	100%		
	Display	20%		
	Interfaces	40%		
	Data Module	70%		
	Radio Module	70%		
	RF Amplifier	70%		
	Antenna	100%		
	Battery	25%		
	Charger	30%		
3. Repeater	Assembly and testing of the	100%		
	fully-built unit			
	Position Module	30%		
	Power Supply	70%		
	Connectors	25%		
	Enclosure	90%		
	Embedded Custom Software	90%		
	Software Libraries	-		
	Total minimum local content (per unit)	60%		

## PIPES, PIPE SPECIALS AND PIPE FITTINGS

	Description of Item	Minimum Threshold	Comply	Not Comply
1.	mPVC pressure pipes in six (6) meter lengths	100%		
	complete with rubber seal ring joints			
2.	uPVC pressure pipes in six (6) meter lengths	100%		
	complete with rubber ring joints			
3.	uPVC Waste systems – plain pipe	100%		
4.	uPVC Waste systems	100%		
5.	uPVC soil & vent – plain pipe	100%		
6.	uPVC soil & vent – socket	100%		
7.	uPVC soil & vent – inspection pipe and bends	100%		
8.	uPVC underground	100%		
9.	uPVC underground – twin wall push fit double socket	100%		
10.	uPVC underground – socket	100%		
11.	uPVC underground – bend plain	100%		
12.	Pipe HDPE PE 63 (Type IV)	100%		
13.	Pipe HDPE PE 80 (Type V)	100%		
14.	mPVC and uPVC double LYNG sockets	100%		
15.	uPVC bends/elbows Class 16	100%		
16.	mPVC bends/elbows Class 16	100%		
17.	mPVC and uPVC double LYNG sockets	100%		
18. (a)	mPVC and uPVC double sockets	100%		
18. (b)	uPVC sockets: Joints shall be solvent weld type	100%		
19.	Hot Dip Galvanised steel pipes medium class (16 bar)	100%		
20.	Ductile Iron Pipes – Socket pipes in six (6), seven (7) and eight point two (8.2) meter (m) lengths	N/A		
21.	Mild Steel Pipes in six (6), seven (7) and eight point two (8.2) meter (m) lengths – Flanged pipes (no corrosion protection)	100%		
22.	Mild Steel Pipes in six (6), seven (7) and eight point	80%		

	Description of Item	Minimum Threshold	Comply	Not Comply
	two (8.2) meter (m) lengths – Polymer Modified			
	Bitumen coating system external and Two (2) Pack Epoxy internal			
23.	Mild Steel Pipes in six (6), seven (7) and eight point	80%		
	two (8.2) meter (m) lengths – Polymer Modified			
	Bitumen coating system external			
24.	Mild Steel Pipes in six (6), seven (7) and eight point	80%		
	two (8.2) meter (m) lengths – 3LPE pipe coating			
	external and Two (2) Pack Epoxy internal			
25.	Mild Steel Pipes in six (6), seven (7) and eight point	80%		
	two (8.2) meter (m) lengths – Rigid Polyurethane			
	Coating System external and Two (2) Pack Epoxy			
00 (-)	internal	4000/	1	
26. (a)	Stainless Steel Grade 304L – Flanged Pipes	100%	1	
26. (b)	Stainless Steel Grade 304L – Plain Ended Pipes	100%	1	
27. (a)	Stainless Steel Grade 316L – Flanged Pipes	100%		
27. (b)	Stainless Steel Grade 316L – Plain Ended Pipes	100%		
28.	Mild Steel Pipes in (9.144), (12.192) meter (m)	100%		
20	lengths (plain ended uncoated)	80%		
29. 30.	Hot Dip Galvanised Pipe Fittings	70%		
	Short Pattern Stainless Steel Ball Valves Gate Valves (Clockwise Closure)	70%	+	
31. (a) 31. (b)	`	70% N/A		
31. (b)	RSV (Resilient Seal Gate Valve)	70%		
	(Non-Rising Stem)			
31.(c)	Double Acting Air Release Valve	70%		
32.	Mild Steel Bends/Elbows Class 16 – Plain Ended –	80%		
	Hot Dip Galvanised	1000/		
33.	Three (3D) Pulled Bends – Plain Ended – Uncoated	100%	1	
34.	Scour Tees	80%	1	
35.	Three (3D) Pulled Bends – with Screwed Ends – with	80%		
26	one Hot Dip Galvanised Socket per Bend	N/A		
36. 37.	Loose Rubber Seal Rings for LYING Ends Saddles with an outlet of 25 mm	N/A N/A		
		N/A N/A	+	
38. 39.	End Caps Hydrant Tees	N/A	+	
40.	Scour Tees Equal Tees: uPVC joints shall be of Solvent Weld	N/A 100%	+	
41.	type	100 /6		
42.	Reducing Tees	80%		
43.	Reducers	80%		
44.	Equal Crosses	80%		
45.	Lubricant for jointing			
46.	Brass Tap BIB 208 – Pillar Mounted – Plain Outlet	70%		
47.	Insert Nylon Fittings for use on HDPE and LDPE	80%		
	pipes			
48.	Compression Fittings	80%		
49.	Cast Iron Flange Adapters – Ductile Iron	N/A		
50.	Straight Couplings	N/A		
51. (a)	Strap Coupling 600 KPa (6 bar) working pressure for Steel Pipes – Hot Dip Galvanised	80%		
51. (b)	Strap Coupling 1000 KPa (10 bar) working pressure for Steel Pipes – Hot Dip Galvanised	80%		
51. (c)	Strap Coupling 1600 KPa (16 bar) working pressure for Steel Pipes – Hot Dip Galvanised	80%		
52. (a)	Strap Coupling 600 KPa (6 bar) working pressure for Steel Pipes – Special Stainless Steel	80%		
				•

	Description of Item	Minimum Threshold	Comply	Not Comply
	for Steel Pipes – Special Stainless Steel			
52. (c)	Strap Coupling 1600 KPa (16 bar) working pressure for Steel Pipes – Special Stainless Steel	80%		
53.	Flanges – Uncoated – Loose	100%		
54.	Flanges – Hot Dip Galvanised – Loose	80%		
55.	Internal Lining – Fusion Bond Epoxy – (Cost per meter)	N/A		
56.	External Lining – Two (2) Pack Epoxy Coated	N/A		
57.	External Lining – Rigid Polyurethane External Coating	N/A		
58.	Welding Cost per flange	100%		
59.	Additional Polyurethane Colour Paint – Top Coat – For Straight Piping	N/A		
60.	Bituguard External Tape Wrapping	N/A		
61.	Welding Cost for Circumferential or Obliugue weld including 100% Radiographic Examination (Workshop)	100%		
62.	Welding Cost for repairs on site for Circumferential or Obliugue welding procedures (Excluding Radiographic Examination)	100%		
63.	Ductile Iron Pipe Bends – Double Flanged Bends	N/A		
64.	Ductile Iron Pipe Bends – Double Socket Bends	N/A		
65. (a)	Standard Mild Steel Elbows (Over 45 degrees up to and including 90 degrees, 3 or 4 segments – Two Pack Epoxy 400 microns inside,	100%		
65. (b)	and Two Pack Epoxy 400 microns plus Tape Wrapping outside.	100%		
65. (c)	Standard Mild Steel Elbows (Over 22.5 degrees up to and including 45 degrees, 2 or 3 segments) – Two Pack Epoxy 400 microns	100%		
66. (a)	Standard Mild Steel Medium Radius Bends (Over 45 degrees up to and including 90 degrees, 4 or 5 segments) – Two Pack Epoxy 400	100%		
66. (b)	microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	N/A		
66. (c)	Standard Mild Steel Medium Radius Bends (Over 22.5 degrees up to and including 45 degrees, 3 or 4 segments) – Two Pack Epoxy	100%		
67. (a)	Standard Mild Steel Long Radius Bends (Over 45 degrees up to and including 90 degrees,5,6 or 7 segments) – Two Pack Epoxy 400	100%		
67. (b)	microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	N/A		
67. (c)	Standard Mild Steel Long Radius Bends (Over 22.5 degrees up to and including 45 degrees, 3, 4 or 5 segments) – Two Pack Epoxy	100%		
68.	Standard Mild Steel Duckpoort Elbow and Bends – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
69.	Standard Mild Steel Tees – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
70. (a)	Standard Mild Steel Sweep Tees (Long Radius) – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
70. (b)	Standard Mild Steel Sweep Tees (Medium Radius) – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus	100%		

	Description of Item	Minimum Threshold	Comply	Not Comply
	Tape Wrapping outside			
70. (c)	Standard Mild Steel Sweep Tees (Medium Radius) – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
71. (a)	Standard Mild Steel Laterals 80 degrees – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
71. (b)	Standard Mild Steel Laterals 45 degrees – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
71.(c)	Standard Mild Steel Laterals 30 degrees – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
72.	Standard Mild Steel Reducers – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
73.	Standard Mild Steel Bell Mouths – Two Pack Epoxy 400 microns inside and Two Pack Epoxy 400 microns plus Tape Wrapping outside	100%		
74. (a)	Standard Stainless Steel 304L Elbows (Over 45 degrees up to and including 90 degrees, 3 or 4 segments)	100%		
74. (b)	Standard Stainless Steel 304L Elbows (Over 22.5 degrees up to and including 45 degrees, 2 or 3 segments)	100%		
74. (c)	Standard Stainless Steel 304L Elbows (Up to and including 22.5 degrees, 2 segments)	100%		
75. (a)	Standard Stainless Steel 304L Medium Radius Bends (Over 45 degrees up to and including 90 degrees, 4 or 5 segments)	100%		
75. (b)	Standard Stainless Steel 304L Medium Radius Bends (Over 22.5 degrees up to and including 45 degrees, 3 or 4 segments)	100%		
75. (c)	Standard Stainless Steel 304L Medium Radius Bends (Up to and including 22.5 degrees, 2 or 3 segments)	100%		
76. (a)	Standard Stainless Steel 304L Long Radius Bends (Over 45 degrees up to and including 90 degrees,5,6 or 7 segments)	100%		
76. (b)	Standard Stainless Steel 304L Long Radius Bends (Over 22.5 degrees up to and including 45 degrees, 3, 4 or 5 segments)	100%		
76. (c)	Standard Stainless Steel 304L Long Radius Bends (Up to and including 22.5 degrees, 2 or 3 segments)	100%		
77.	Standard Stainless Steel 304L Duckpoort Elbow and Bends	100%		
78.	Standard Stainless Steel 304L Tees	100%		
79. (a)	Standard Stainless Steel 304 L Sweep Tees (Long Radius)	100%		
79. (b)	Standard Stainless Steel 304L Sweep Tees (Medium Radius)	100%		
79. (c)	Standard Stainless Steel 304L Sweep Tees (Elbows)	100%		
80. (a)	Standard Stainless Steel 304L Laterals 80 degrees	100%		
80. (b)	Standard Stainless Steel 304L Laterals 45 degrees	100%		
80. (c)	Standard Stainless Steel 304L Reducers	100%		

	Description of Item	Minimum Threshold	Comply	Not Comply
81.	Standard Stainless Steel 304L Bell Mouths	100%		
82. (a)	Standard Stainless Steel 316L Elbows (Over 45 degrees up to and including 90 degrees, 3 or 4 segments)	100%		
82.(b)	Standard Stainless Steel 316L Elbows (Over 22.5 degrees up to and including 45 degrees, 2 or 3 segments)	100%		
82. (c)	Standard Stainless Steel 316L Elbows (Up to and including 22.5 degrees, 2 segments)	100%		
83. (a)	Standard Stainless Steel 316L Elbows (Over 45 degrees up to and including 90 degrees, 3 or 4 segments)	100%		
83. (b)	Standard Stainless Steel 316L Elbows (Over 22.5 degrees up to and including 45 degrees, 2 or 3 segments)	100%		
83. (c)	Standard Stainless Steel 316L Elbows (Up to and including 22.5 degrees, 2 segments)	100%		
84. (a)	Standard Stainless Steel 316L Long Radius Bends (Over 22.5 degrees up to and including 45 degrees, 3, 4 or 5 segments)	100%		
84. (b)	Standard Stainless Steel 316L Long Radius Bends (Up to and including 22.5 degrees, 2 or 3 segments)	100%		
84. (c)	Standard Stainless Steel 316L Long Radius Bends (Over 22.5 degrees up to and including 45 degrees, 3, 4 or 5 segments)	100%		
85.	Standard Stainless Steel 316L Duckpoort Elbow and Bends	100%		
86.	Standard Stainless Steel 316L Tees	100%		
87. (a)	Standard Stainless Steel 316 L Sweep Tees (Long Radius)	100%		
87. (b)	Standard Stainless Steel 316L Sweep Tees (Medium Radius)	100%		
87. (c)	Standard Stainless Steel 316L Sweep Tees (Elbows)	100%		
1. (a)	Standard Stainless Steel 316L Laterals 80 degrees	100%		
88. (b)	Standard Stainless Steel 316L Laterals 30 degrees	100%		
88. (c)	Standard Stainless Steel 316L Laterals 45 degrees	100%		
2.	Standard Stainless Steel 316L Reducers	100%		
3.	Standard Stainless Steel 316L Bell Mouths	100%		
4.	Non-Standard Mild Steel Pipes 500mm Lengths (Flanged Both Ends)	100%		
5.	Non-Standard Galvanised Steel Pipes 500 mm Lengths (Flanged One End)	80%		
6.	Non-Standard Galvanised Steel Pipes 500 mm Lengths (Flanged Both Ends)	80%		
7.	Non-Standard Galvanised Steel Pipes 1000 mm Lengths (Flanged Both Ends)	80%		
8.	Non-Standard Galvanised Steel Pipes 1000 mm Lengths (Flanged One End)	80%		
9.	Non-Standard Galvanised Steel Pipes 2000 mm Lengths (Flanged Both Ends)	80%		
10.	Non-Standard Galvanised Steel Pipes 2000 mm Lengths (Flanged One End)	80%		
11.	Non-Standard Galvanised Steel Pipes 3000 mm Lengths (Flanged Both Ends)	80%		
12.	Non-Standard Galvanised Steel Pipes 3000 mm Lengths (Flanged One End)	80%		
13.	Non-Standard Galvanised Steel Pipe Sections,	80%		

	Description of Item	Minimum Threshold	Comply	Not Comply
	Flanged Both Ends, Puddle Flange 300mm from Flange (40 bar and 25 bar Flange)			
14.	Non-Standard Galvanised Steel Pipe Sections, Flanged One End, Puddle Flange 300mm from Flange (40 bar and 25 bar Flange)	80%		
15.	Non-Standard Galvanised Steel Pipe Sections, Flanged Both Ends, Puddle Flange 300mm from Flange (40 bar and 10 bar Flange)	80%		
16.	Non-Standard Galvanised Steel Pipe Sections, Flanged One End, Puddle Flange 300mm from Flange (40 bar and 10 bar Flange)	80%		
17.	Non-Standard Galvanised Steel Pipe Sections, Flanged Both Ends, Puddle Flange 350mm from Flange (40 bar and 10 bar Flange)	80%		
18.	Non-Standard Galvanised Steel Pipe Sections, Flanged One End, Puddle Flange 350mm from Flange (40 bar and 25 bar Flange)	80%		
19.	Non-Standard Galvanised Steel Pipe Sections, Flanged Both Ends, Puddle Flange 500mm from Flange (40 bar and 25 bar Flange)	80%		
20.	Non-Standard Galvanised Steel Pipe Sections, Flanged One End, Puddle Flange 500mm from Flange (40 bar and 25 bar Flange)	80%		
21.	Galvanised Steel Reducers – Flanged Both Ends	80%		
22.	Galvanised Steel Ranger Coupler, Flanged Both Ends	80%		
23.	Galvanised Steel Ranger Coupler, Flanged One End	80%		
24.	Galvanised Steel 45 degrees Bends Flanged Both Ends	80%		
25.	Galvanised Steel Tee Piece 100 mm diameter Flanged	80%		
26.	Galvanised Steel Tee Piece 200 mm diameter Flanged	80%		
27.	Galvanised Steel Tee Piece 250 mm diameter Flanged	80%		
28.	Galvanised Steel Tee Piece 300 mm diameter Flanged	80%		
29.	Galvanised Steel Tee Piece 350 mm diameter Flanged	80%		
30.	Galvanised Steel Tee Piece 400 mm diameter Flanged	80%		
31.	Galvanised Steel Tee Piece 450 mm diameter Flanged	80%		
32.	Galvanised Steel Tee Piece 500 mm diameter Flanged	80%		

Manufacturing Process of Steel Conveyance Pipe	Size	Physical Properties	% Local Content	Comply	Not Comply
Spiral submerged arc welding	500mm-3500mm	Bare	100%		
Spiral submerged arc welding	500mm-3500mm	Lined and coated	80%		
Spiral submerged arc welding	500mm-3500mm	Galvanized	85%		

As indicated above, it has been distinguished between (a) bare, (b) galvanized and (c) lined and coated large bore spiral submerged arc welded steel conveyance pipe.

(a) Bare: The bare large bore spiral submerged arc welded steel conveyance pipe as is implied by the name, has not been lined, coated or galvanized. It is thus more prone to corrosion (rusting) and abrasion (inside) of the pipe as well as cathodic erosion (outside) of the pipe of direct current (DC) underground. The stipulated local content percentage (100%) is premised on the following key cost drivers incurred in the manufacture of the pipes:

**Bare (100% Local Content)** 

Cost breakdown	% of steel finished product
Steel Coil Cost	78%
Loss of steel	8%
Conversion cost	14%

(b) **Lined and coated**: Bare steel pipes can be lined (inside) and coated (outside) by applying protective coatings in the form of paints to protect them from corrosion. This pipe is typically used to convey water. The stipulated local content percentage (80%) is premised on the following key cost drivers incurred in the manufacture of the pipes:

Cost breakdown	% of steel finished product
Steel Coil Cost	58%
Loss of steel	8%
Conversion cost	14%
Lining and Coating	20%
TOTAL	100%

(c) Galvanized: Galvanized large bore spiral submerged arc welded steel conveyance pipe is where the bare pipe is dipped in a hot zinc bath and both inside and outside surfaces are coated with zinc to avoid corrosion. Zinc coating, which makes up 15% of the cost is not manufactured locally and is imported. The stipulated local content percentage (85%) is premised on the following key cost drivers incurred in the manufacture of the pipes:

Cost breakdown	% of steel finished product
Steel Coil Cost	63%
Loss of steel	8%
Conversion cost	14%
Hot Zinc	15%
TOTAL	100%

## **PHASE 5: FUNCTIONALITY COMPLIANCE**

Bidders must score at least **50 out of 85** in respect of functionality in order to qualify for advancement to Phase 5. A bidder that scores less than **50 out of 85** will be regarded as submitting a non-responsive bid and will be disqualified. Bidders who fail to obtain a minimum score for each criterion will be disqualified.

The weight that will be allocated to each functionality criteria is as follows (unless otherwise stated):

The evaluators are to score the bidder on a scale given per item and use the scored value

to determine the achieved weight of the criterion.

Criteria	Sub-Criteria	Points	Weight of	Bidder
J. Itolia	Can differin	Value	Criterion	Score
Ability and Capability	Demonstrated skills and experience of each key personnel for this project; for example but not limited to, engineers, technicians, project managers, specialist artisans / foreman, artisans. (Attach 1 page resume of each key project team member indicating qualifications, experience,	Value	40	33310
	accreditation / affiliation)  Submission of Organizational Structure and CVs  Bidders must submit the following academic			
	qualification and proof of registration where professional bodies are required:  (i)Professional mechanical engineer (Active ECSA registration) (with experience relating to maintenance of mechanical plant and machinery			
	in infrastructure preferably water industry infrastructure), (ii)Specialist Artisan / Foreman (Mechanical), (iii)Artisan (Mechanical)  Professional Mechanical Engineer (i)			
	7 Years or more experience	7		
	6 Years or more experience	6		
	5 Years or more experience	5		
	4 Years or more experience	4	_	
	3 Years or more experience	3		
	Failure to submit organization structure and CV (1 page resume)	0		
	Specialist Artisan / Foreman (Mechanical) (ii)	40	-	
	6 Years or more experience	10	4	
	5 Years or more experience	8	Á	
	4 Years or more experience	/	Á	
	3 Years or more experience	6	ĺ	
	2 Years or more experience Failure to submit organization structure and CV (1 page resume)	5		
	Artisan (Mechanical) (iii)		]	
	5 Years or more experience	10	1	
	4 Years or more experience	8		
	3 Years or more experience	7		

1	2 Voore or more experience	6		
	2 Years or more experience	5	-	
	1 Years or more experience	0	-	
	Failure to submit organization structure and CV (1	0		
	page resume)		-	
	Diddon moved out wit the following and demain		_	
	Bidders must submit the following academic			
	qualification and proof of registration where			
	professional bodies are required:			
	(ii)Specialist Artisan / Foreman (Electrical),			
	(iii)Artisan (Electrical)			
	Specialist Artisan / Foreman (Electrical) (ii)			
	6 Years or more experience	7		
	5 Years or more experience	6		
	4 Years or more experience	5		
	3 Years or more experience	4		
	2 Years or more experience	3	1	
	Failure to submit organization structure and CV (1	0	1	
	page resume)	-		
	Artisan (Electrical) (iii)		-	
	5 Years or more experience	6	1	
	4 Years or more experience	5	1	
	3 Years or more experience	4	1	
	•	3	1	
	2 Years or more experience	2	_	
	1 Years or more experience		-	
	Failure to submit organization structure and CV (1	0		
	page resume)			
Quality Plan	Bidders are expected to have developed a quality management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test		15	
Quality Plan	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence	0	15	
Quality Plan	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS  Document QMS without all six mandatory	0 5	15	
Quality Plan	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS		15	
Quality Plan	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS  Document QMS without all six mandatory procedures  Comprehensive internal systems with the six	5	15	
•	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS  Document QMS without all six mandatory procedures  Comprehensive internal systems with the six mandatory procedures  ISO 9001 certified	5		
Planning and Method Statement on execution of multiple planned maintenance	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS  Document QMS without all six mandatory procedures  Comprehensive internal systems with the six mandatory procedures  ISO 9001 certified  Appointed bidders may receive multiple orders at the same time and would be required to properly plan and submit method statements on the execution of the works. It is then expected that bidders should demonstrate an ability to plan for distribution of resources and develop method statements for various work orders.	5 10 15	10	
Planning and Method Statement on execution of multiple planned	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS  Document QMS without all six mandatory procedures  Comprehensive internal systems with the six mandatory procedures  ISO 9001 certified  Appointed bidders may receive multiple orders at the same time and would be required to properly plan and submit method statements on the execution of the works. It is then expected that bidders should demonstrate an ability to plan for distribution of resources and develop method	5		
Planning and Method Statement on execution of multiple planned maintenance	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS  Document QMS without all six mandatory procedures  Comprehensive internal systems with the six mandatory procedures  ISO 9001 certified  Appointed bidders may receive multiple orders at the same time and would be required to properly plan and submit method statements on the execution of the works. It is then expected that bidders should demonstrate an ability to plan for distribution of resources and develop method statements for various work orders.  No method statement submitted  Detailed methodology, not sequential or relevant	5 10 15		
Planning and Method Statement on execution of multiple planned maintenance	management system as maintenance is a process and there would repetitive tasks where the bidders should ensure that quality of the process is maintained or improved over time and as such ISO 9001 is the preferred standard to test this aspect.  No accreditation with ISO 9001 and no evidence of QMS  Document QMS without all six mandatory procedures  Comprehensive internal systems with the six mandatory procedures  ISO 9001 certified  Appointed bidders may receive multiple orders at the same time and would be required to properly plan and submit method statements on the execution of the works. It is then expected that bidders should demonstrate an ability to plan for distribution of resources and develop method statements for various work orders.  No method statement submitted	5 10 15		

	relevant standards mentioned		
Past Experience	Contactable reference evaluation Bidders must submit signed project completion certificate(s) from previous projects, with contact details of clients/employer.  Note that only completed projects will be accepted.  Relevant work experience in infrastructure (preferably water industry):  Pipe-lines, Pump stations, Valves, Cranes & lifting equipment, Corrosion protection, MV/LV Electrical  Reference letter(s) must indicate the number of above listed projects completed by the bidder.		15
	12 or more Completed projects 10 Completed projects 8 Completed projects 6 Completed projects 4 Completed projects	15 12 9 6 3	- - -
Warranty Management	1 to 3 Completed projects  Due to the requirement that all works have a warranty of one year after completion. Bidders are expected to demonstrate how they will adhere to this requirement	1	5
TOTAL	No warranty management system supplied  Warranty management system supplied	5	85
. O IAL			(50)

<sup>\*</sup>The Department discourages the sharing of professionals (professional engineers, specialist artisans, and artisans) among bidders. In cases where there is evidence of sharing of professionals; the appointed contractors will have to discuss risks involved with the Department.

## PHASE 6: EVALUATION OF BIDDER'S WORKSHOPS:

Bidders that obtained at least 50 points during the Phase 5 evaluation shall have their workshops evaluated. Bidders who fail to score a minimum of 10 points for the workshop evaluation shall be disqualified.

Criteria	Sub-Criteria	Points Value	Weight of Criterion	Bidder Score	
Workshop Facilities As stipulated below this table.	The bidder must obtain at least 10 points for the workshop facilities. Failure to obtain 10 points shall result in non-compliance and the bid shall be considered as non-responsive.  5* Ton Overhead crane or have the capability	2.5	15 (10) Bidder must score a	15 (10) Bidder must	
	of lifting 5 Ton loads (Load tested and certified by an LMI).	2.5	10 points. Failure to score 10		
	Machine shop Boiler making section	2.5	points shall		
	Corrosion Protection Bay	2.5	render your bid non-		
	Testing and Quality Control Area	2.5	responsive		
	Quality Control Equipment	2.5			

• For Usutu-Vaal, Usutu River and Tugela Vaal (Bloemfontein certain installations) the requirement would be 10 tons

A workshop facility shall be a closed, under cover, ventilated workshop facility complying with the Occupational Health and Safety Act.

a) For Tenderers bidding for the Free State (Bloemfontein Area): An overhead crane shall have a capacity of not less than  $5^*$  Ton or have the capability to lift loads of  $5^*$  Ton. = 2.5 points

For Tenderers bidding for either Usutu Vaal & Vaal Dam, Usutu River and Tugela Vaal Areas the requirement would be:

An overhead crane shall have a capacity of not less than 10 Ton or have the capability to lift loads of 10 Ton. = 2.5 points

- b) Machine shop shall be an area within the workshop facility or a stand-alone closed, under cover, ventilated workshop facility complying with the Occupational Health and Safety Act where machining is done, the machine shop shall have the following equipment:
  - 1. Lathe(s) = 0.5 point
  - 2. milling machine(s), = 0.5 point
  - 3. pedestal drill, = 0.5 point
  - 4. hydraulic press, = 0.5 point
  - 5. grinding and welding machines. = 0.5 point
- c) Boiler making section shall be a section in the workshop facility or a stand-alone closed, under cover, ventilated workshop facility complying with the Occupational Health and Safety Act dedicated for the following activities:
  - 1. use variety of tools to cast and bend pieces into shape, = 1.25 points
  - 2. welding or bolting pieces together = 1.25 points

- d) Corrosion Protection Facility shall be dedicated for the following activities:
  - 1. Fettling or dressing, = 0.5 point
  - 2. Degreasing, = 0.5 point
  - 3. Blast clean, = 0.5 point
  - 4. Application of the first coat, = 0.5 point
  - 5. Application of intermediate and final coats = 0.5 point
- e) Testing and Quality Control Area shall be dedicated for the following activities:
  - 1. Inspection of equipment and/or material = 1.25 points
  - 2. Testing of equipment (that is, hydrostatic testing, corrosion protection testing, factory assessment testing, etc.) = 1.25 points
- f) Quality Control Equipment includes the following:
  - 1. Corrosion protection testing equipment (that is, dry film thickness (DFT) tester, Pin hole tester, water soluble test equipment etc.) = 0.5 point
  - 2. Hydrostatic testing equipment = 0.5 point
  - 3. Pressure testing equipment = 0.5 point
  - 4. Electrical testing equipment (that is, multi-meters, clamp-on ammeter, Insulation Tester, etc.) = 0.5 point
  - 5. Measuring equipment (for measuring: temperature, length, weight, etc.) = 0.5 point

# PHASE 7: 90/10 Principle will be applied in terms of the new Preferential Procurement Regulations, 2017 pertaining to the PPPFA Act no 5 of 2000.

#### **Evaluation of Price and Preference Points Claimed:**

During this phase, bid proposals that passed the phase 6 will be further evaluated based on the 90/10 preference points system in accordance with the PPPFA Act, where 90 points will be attained in respect of price and 10 points will be awarded to a bidder for attaining the B-BBEE Status Level of Contribution.

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.

Proof includes an original or certified copy of B-BBEE Status Level Verification Certificates or certified copies thereof together with their price quotations, to substantiate their B-BBEE rating claims

Bidders who qualify as EMEs are only required to submit a sworn affidavit signed by the company representative and attested by a Commissioner of oaths, confirming its annual total revenue and level of Black ownership.

B-BBEE certificate must be an original or certified copy and it must be valid on or before the closing date of the invitation in order for a bidder to qualify for the points to be claimed. The original Sworn Affidavit endorsed or signed off by the commissioner of oath must be the original document not a copy and it must be valid on or before the closing date of the invitation in order for a bidder to qualify for the points to be claimed.

In bids where there is Consortia/Joint Ventures, a consolidated valid B-BBEE certificate must be submitted.

# BIDDERS ARE REQUESTED NOT TO MAKE A COPY OF THE DOCUMENT WHICH HAS ALREADY BEEN CERTIFIED FOR TENDERING PURPOSES!!

#### **Pricing Schedule**

A detailed financial proposal must be submitted with the bid. Each item of the financial proposal must be linked to a specific deliverable of the Price Schedules.

A 10% mark-up is applicable on normal procurement under this bid. During emergency works; the Departmental SCM policy shall indicate the applicable mark-up of a maximum of 20% that may be claimed by the Contractor.

<u>Failure to complete the pricing schedules in full may render your bid non-responsive.</u>

<u>Arithmetic errors will be managed in accordance with the CIDB Inform Practice Note No. 2</u>
of 2006 "Correcting Arithmetic Errors in Tenders".

## National Treasury's Central Supplier Database.

With effect from 1 April 2016, accounting officers and accounting authorities may not award any bid to a supplier not registered as a prospective supplier on the National Treasury's Central Supplier Database.

## **FOR ENQUIRIES**

**FURTHER TECHNICAL INFORMATION**: queries and questions of clarity can be addressed to Chief Directorate: Infrastructure Operations and Maintenance office: contact Mr T Ngati contactable as follows: Tel: 012 336 8623 email: <a href="maintenance">ngatit@dws.gov.za</a> and cc <a href="maintenance">moshodim@dws.gov.za</a> and <a href="maintenance">ndumon@dws.gov.za</a> and the **subject name** of this Bid should be clearly identified on the subject line when an enquiry is made.

Queries relating to the issue of these documents may be addressed to Ms Puseletso Mathiso, Tel No 012 336 7063, Fax No N/A E- Mail MathisoP@dws.gov.za

#### i. **DEFINITIONS**

- 1. Words imparting the singular also include plural and the masculine (he/his) includes the feminine (she/her) and visa-versa where the contract requires it.
- 2. The word "days" denotes calendar days and the word "months" denotes calendar months.
- 3. The term "Contractor" shall mean the successful bidder to whom part of the bid has been awarded, but not, except with the written consent of the Department, any assignee of the contractor.
- 4. The term "Department" shall mean the **DEPARTMENT OF WATER AND SANITATION.**
- 5. "DWS" means **DEPARTMENT OF WATER AND SANITATION.**
- 6. The term "Site" shall mean any Departmental site where the repair work or a portion of the repair work is conducted.
- 7. "ORHVS" means Operating Rules for High Voltage/Medium Voltage (HV/MV) Systems

## T1.2 Tender Data

The conditions of tender are those contained in the latest edition of SANS 10845-3, *Construction Procurement – Part 3: Standard conditions of tender.* 

SANS 10845-3 makes several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the provisions of SANS 10845-3.

Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.

Clause number	Tender Data
3.1	The Employer is the Director-General of the Department of Water and Sanitation.
3.2	The tender documents issued by the employer comprise the following documents:  THE TENDER  Part T1: Tendering procedures  T1.1 - Tender notice and invitation to tender  T1.2 - Tender data  Part T2: Returnable documents  T2.1 - List of returnable documents  T2.2 - Returnable schedules  THE CONTRACT  Part C1: Agreements and Contract data  C1.1 - Form of offer and acceptance  C1.2 - Contract data  C1.3 - Performance Bond  Part C2: Pricing data  C2.1 - Pricing assumptions  C2.2 - Bill of Quantities  Part C3: Scope of work  C3 - Scope of work  Part C4: Site information  C4 - Site information
3.4	The employer's agent is: the Chief Director: Infrastructure Operations and Maintenance  Department of Water and Sanitation Private Bag X 313 Pretoria, 0001  Telephone Number:
3.4	The language for communications is English

4.1 Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of the Construction Industry Development Regulations, for a ME class (with EP class capabilities) of construction work, are eligible to have their tenders evaluated. Joint ventures are eligible to submit tenders provided that: 1. every member of the joint venture is registered with the CIDB: 2. the lead partner has a contractor grading designation in the ME class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with a value determined in accordance with Regulation 25 (1B) of the Construction Industry Development Regulations for a ME class of construction work. a) Free State (Bloemfontein) Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP. b) Tugela Vaal Office CIDB contractor grading of 7 ME. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of c) Usutu River Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP. d) Usutu Vaal and Vaal Dam Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP. 4.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list. 4.10 Tenderers are required to state the rates and currencies in South African Rands (ZAR) 4.12 Main tender offers are not required to be submitted together with alternative tenders. 4.13.1 Parts of each tender offer communicated on paper shall be submitted as an original, plus 1 сору. 4.13.5 The employer's details and address for delivery of tender offers and identification details that 4.15 are to be shown on each tender offer package are: Location of tender box: Department of Water and Sanitation (Zwamadaka Building) Physical address: 157 Francis Baard Street Pretoria 0001 Identification details: Tender reference number, Title of Tender and the closing date and time of the tender 4.13.5 Refer to paragraph 8 on the Instructions to Bidders.

4.13.5	The "ORIGINAL" and "COPY" are to be submitted as separate packages. Both the "original" and "duplicate" copies of the Bid, each in their separate sealed envelopes or sealed packaging shall be placed in a single sealed envelope or sealed packaging endorsed with the title and bid number stated on the front cover of these documents.
4.13.6	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
4.15	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
4.16	The tender offer validity period is 120 days.
4.19	Access shall be provided for the following inspections:              Workshop Facilities inspections (as part of the Evaluation Criteria, Phase 6: Evaluation of Bidder's Workshops)             Equipment inspections as part of quality surveillance per project.
4.22	Return all retained tender documents within 28 days after the expiry of the validity period
5.1	The Employer will respond to requests for clarification received up to 7 working days before the tender closing time.
5.2	The employer shall issue addenda until 5 working days before tender closing time.
5.4	The time and location for opening of the tender offers are:
	Time: immediately after the closing time for tenders on 06 August 2021 (date) Location: Zwamadaka Building tender office
5.11	The evaluation of bids will be as stated in the Bid Evaluation criteria under the Instructions to Bidders.
5.13	Tender offers will only be accepted if:
	<ul> <li>a) the tenderer is registered on the Central Supplier Database (CSD) for the South African government ( see <a href="https://secure.csd.gov.za/">https://secure.csd.gov.za/</a> ) unless it is a foreign supplier with no local registered entity</li> <li>b) the tenderer is in good standing with SARS according to the Central Supplier Database;</li> <li>c) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;</li> <li>d) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;</li> <li>e) the tenderer has not: <ul> <li>i) abused the Employer's Supply Chain Management System; or</li> <li>ii) failed to perform on any previous contract and has been given a written notice to this effect;</li> </ul> </li> <li>f) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process;</li> <li>g) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;</li> <li>h) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</li> </ul>
5.17	The number of paper copies of the signed contract to be provided by the employer is 1.

### T1.2.2 Conditions of Maintenance

1.	SCOPE AND CONDITIONS
1.1	This bid for a three-year contract is to, when required, support the National Water Resources Infrastructure (NWRI) Operations, Strategic Asset Management and other Infrastructure Projects of the Department of Water and Sanitation, Central Operations, with the supply, installation, repair, refurbishment, upgrade, maintenance and project / contract / contractor supervision of mechanical and other related works installations and equipment associated with the Department of Water and Sanitation installations.
1.2	The service to be provided shall include preventative maintenance, and emergency repairs.
1.3	The Contractor shall have substantial capacity and facilities to handle all the equipment listed in the Technical Specification and Requirements, Paragraph 1 Scope of Work. Subcontractors may be appointed for specialised activities, subject to the approval of the Employer's Agent or his Representative.
1.4	The Department's goal is to appoint one contractor per Area Office.
	CIDB grading per Area Office will be as follows:
	<ul> <li>a) Free State (Bloemfontein) Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.</li> <li>b) Tugela Vaal Office CIDB contractor grading of 7 ME. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.</li> <li>c) Usutu River Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.</li> <li>d) Usutu Vaal and Vaal Dam Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.</li> </ul>
1.5	The term "other related work" in this contract refers to electrical works. The contractor must also have electrical works capabilities or subcontract electrical works to suitably qualified electrical contractor(s).
	The bidder must have a CIDB grading of EP class as listed in paragraph 1.4 (above) for electrical works (Subcontract or Joint Venture agreements may be entered into in order to achieve the compulsory electrical works grade)
	Electrical works resources and capabilities will form part of the tender evaluation criteria.
1.6	The Operational Areas referred to under this bid consists of parts of six (6) Provinces, with (4) DWS Area Offices (Free State (Bloemfontein) Area, Tugela Vaal Area, Usutu River Area, Usutu Vaal and Vaal Area). Usutu Vaal and the Vaal Area will be combined as one Area under this bid/contract. The main contractor will be responsible for the programming, reporting and guarantee of each specific project. The DWS Operational Area Offices information is listed in "Part C4: Site Information".

1.7	The Department reserves the right to appoint more than one (1) contractor per Operational Area Office in the event of poor performance and reserves the right to utilize contractors across area office "borders"
1.8	The contractor may request to appoint subcontractors in writing to the Employer's Agent or his Representative if any of the projects only entails a very small portion of work from the other disciplines. Only subcontractors approved by the Employer's Agent or his Representative may be used.
1.9	The Department reserves the right to identify and implement procurement opportunities for designated groups where compulsory sub-contracting must be applied on any projects within this three year contract.
1.10	On any of the projects within this three year contract where the Department deems "feasible" the contractor shall subcontract 30% of the work under this contract to advance designated groups. Compulsory subcontracting shall be as per paragraph 12.
1.11	The appointed main contractor shall subcontract to designated groups' mechanical contractors with a CIDB gradings of 1, 2, 3, 4, 5, 6 or 7 ME. The CIDB gradings shall be relative to the value of the project in order to achieve the compulsory subcontracting percentage value.
1.12	The appointed main contractor shall also subcontract to designated groups' electrical contractors with a CIDB gradings of 1, 2, 3, 4, 5, 6 or 7 EP. The CIDB gradings shall be relative to the value of the project in order to achieve the compulsory subcontracting percentage value.
1.13	The contractor may be required to supply, install, test and commission certain goods and services for major plant and machinery. For goods and services that have been designated for local production and content only locally produced goods and services with a stipulated minimum threshold for local production and content will be considered.
	The Employer's Agent or his Representative will identify and indicate goods and services that have been designated for local production and content.
	Only locally produced goods and services with a stipulated minimum threshold for local production and content, will be considered, on condition that such prescript and threshold(s) are in accordance with the specific standards determined by the National Department of Trade and Industry (DTI) in consultation with the National Treasury. Refer to Phase 4 of the evaluation criteria.
1.14	The Department reserves the right to procure any of the designated and/or non-designated group goods and/or services using another contract.
1.15	Being appointed on this contract does not in any way guarantee a right to perform any required work in accordance to this contract. The Department reserves the right to negotiate prices during the quotation acceptance or approval stage on any project under this term contract. Where price negotiations *fail, the Department reserves the right to advertise or request price quotations and award the work to other Contractors. *where the parties reach stalemate then the negotiations would have failed.  The Department also reserves the right to allocate the work internally.

1.16	The contractor must be able to provide urgent or emergency services whenever it is required. The Engineer reserves the right to require urgent repair services from the Contractor in the event of an emergency. Under these circumstances the Employer's Agent's Representative reserves the right to require the Contractor to provide such urgent repair facilities to be available 24 hours a day, 7 days a week at the contracted rates.
1.17	During normal occasions the procurement process will be as per the Normal maintenance Procurement process, refer to Annexure E
1.18	During urgent and/or emergency occasions the procurement process will be as per the Emergency Procurement process, refer to Annexure E
1.19	The goal of the Department is to appoint one contractor per DWS Area Office. The contractor's facilities shall be located within the boundaries of that particular Operational Area Office or located within reasonable distance.
	The contractor must have the facilities or have acceptable written binding agreements for the full duration of the contract with associate companies to do a preponderance of the work listed in "Technical Specification and Requirements".
1.20	The contractor's facilities shall exist at the time of bidding and the contractor shall have personnel with relevant qualifications and a proven record of executing similar work. These facilities shall be available for inspection during adjudication.
1.21	Bidders shall accept as a condition of this contract that any premises including premises of subcontractors may be inspected prior to the awarding of the contract. The contractor's premises will be evaluated as per the facilities evaluation criteria attached in the Evaluation Criteria.
1.22	The Contractors shall with his bid submission indicate which specialist work is intended to be contracted out to specialist companies. The information on subcontractors shall be included in Annexure2: Schedule of Subcontractors.
1.23	Joint ventures may be entered into to achieve the aimed B-BBEE rating. Copies of these agreements shall accompany the Bid.
1.24	The Employer's Agent or his Representative reserves the right to allocate any of the services described to Departmental staff or may request the main Contractor to appoint a nominated Subcontractor and/or Subcontract to advance designated groups in which case the main Contractor may be required to supervise and may also be required to carry the responsibility for the guarantee.
1.25	The Department reserves the right to have any of the services as listed under Technical Specification and Requirements, done under the normal Departmental procurement regulations, if at the discretion of the Employer's Agent or his Representative it is in the best interest of the Department.
	Any work of an estimate value of less than R 30,000.00 including VAT may be excluded of the scope of the contract and may be dealt with under the normal Government procurement regulations.
1.26	The offered service as a whole and all component parts shall be strictly in accordance with the term of the documents listed below:
1.26.1	The Government Procurement General Conditions of Contract

1.26.2	"General Conditions of Contract for Construction Works (GCC 2015 third
	edition)".
1.26.3	The Departmental Standard Specifications.
1.26.4	This Specification for Bid DWS03 0621WTE.
1.26.5	The information provided in the Technical Schedules.
1.27	If in their offers there are any departures whatsoever from any of the provisions to meet these conditions, procedures and specifications or from any of the terms set out in this contract, Bidders shall <b>list</b> each and every departure in the form "Proposed Amendments and Qualifications".
	Failure on the part of any Bidder to comply with the above requirement in full MAY INVALIDATE THE OFFER.
1.28	In terms of the requirements of this contract, the Contractor may be required to facilitate training (Technical and non-technical training) and transfer skill from time to time. The contractor shall have the capability to provide hands-on training of personnel, at his workshop facility, on site and at nominated suppliers' facilities.
2.	PROJECT MANAGEMENT
2.1	Control of the Contract is vested in the Chief Director: Infrastructure Operations and Maintenance of the Department of Water and Sanitation, hereafter referred to as the Employer's Agent in terms of the General Conditions of Contract (GCC 2015).
2.2	The contact persons will be communicated after award of the bid.
2.3	When awarded, all written communication in respect of this contract shall be addressed to:
	CHIEF DIRECTOR: INFRASTRUCTURE OPERATIONS AND MAINTENANCE Department of Water and Sanitation Private Bag X 313 Pretoria, 0001
	Telephone Number: (012) 336 7500 Facsimile Number: (012) 323 2791
2.4	ALL correspondence between the Contractor and the Employer shall be copied to the Chief Director: Infrastructure Operations and Maintenance at the address indicated above. This includes ALL faxes, letters, claims for payment, etc.
2.5	The Contractor to be appointed for this Contract shall undertake to forthwith acknowledge IN WRITING the receipt of ALL correspondence from the Employer's Agent and/or the Employer and shall provide suitable response within a period of fourteen (14) days. Failure of the Contractor to comply with this requirement shall be interpreted as a breach of contract.

3.	GENERAL CONDITIONS
3.1	This Support Contract Conditions contains the general conditions and requirements with regard to contract administration, material, equipment, workmanship, installation, quality control and commissioning of the Works and should be read together with the Conditions of Bid, Conditions of Contract, Special Condition of Contract and the Technical Specification.
3.2	Should any conflict arise between the requirements embodied in the Tender Data the Support Contract Conditions and the General Conditions of Contract, the Employer's Agent or his Representative shall be informed in writing for his ruling.
3.3	The Contractor shall be responsible for the acquisition of adequate insurance to cover all equipment temporarily in its possession, albeit in temporary storage, in transit to and from the site, etc. In addition, the Contractor shall ensure that such insurance cover will also include the transport of equipment by the Department or an appointed subcontractor, should the Contractor request the Department or an appointed subcontractor to assist with the transportation of any equipment at any time.
4.	REGULATIONS AND STANDARDS
4.1	<ul> <li>All work carried out on the Department's equipment and premises shall be strictly in accordance with the latest revisions and amendments of the following:</li> <li>SANS 10142: Code of Practice for the wiring of Premises (hereafter referred to as the 'Wiring Code').</li> <li>IEC 1024 (Part 1 and Part 1.1): Code for the protection of structures against lightning hazards.</li> <li>SANS 1069 Part 1 and Part 2/93: Land Mobile Communications, in conjunction with ETS 300086: Radio equipment and - systems - Land Mobile Service.</li> <li>The Occupational Health and Safety Act, Act No. 85 of 1993, as amended.</li> <li>The Municipal by-laws and any special requirements of the local Supply Authority.</li> <li>The Basic Conditions of Employment Act No 75 of 1997, as amended.</li> <li>Any other applicable standards stipulated by the Employer's Agent's Representative</li> </ul>
4.2	NB: Notwithstanding the above list the Contractor shall comply with all Acts, regulations, By-laws etc. which shall apply to the Department's sites and entry thereto.
4.3	Any conflict that may arise between any regulation of the above-mentioned documents and this specification shall forthwith be referred to the Employer's Agent IN WRITING for his subsequent ruling, BEFORE the Contractor attempts any modification to any part of the works to comply with said regulation.
4.2	If any equipment or material to be used complies with a standard issued by a recognised international standards organisation, then such compliance should be

	stated in the bid documents (Price Schedule).
4.3	All equipment or material to be installed shall be new and of an acceptable quality to the Employer's Agent.
5.	SAFETY CONDITIONS
5.1	All work, personnel, materials and equipment shall comply with the relevant requirements of the Occupational Health and Safety Act of 1993 (Act No. 85 of 1993).
5.2	The contractor and/or subcontractor shall create a Safety File for the activities to be performed on site, the Safety File shall be submitted to the Department for the Employer's Agent's or his Representative's acceptance. The content of the safety file for each activity shall be stipulated by Employer's Agent or his Representative.
5.3	The Employer's Agent's Representative shall issue a work permit to the contractor after the Employer's Agent or his Representative is satisfied with the contractor's documentation, including the Safety File. No contractor and/or subcontractor shall commence with site activities without the Departmental work permit. The contractor must have as part of his team a person competent to receive the work permit who then shall be fully responsible for the safe execution of such work notwithstanding that the Employer's Representative (GMR appointee) shall have full authority to stop or influence the work.
5.4	It is the responsibility of the Contractor and the Employer's Agent's Representative to ensure that the equipment to be serviced is safe to work on.
5.5	It is an explicit condition of this bid that the Contractor is solely responsible for the safety of all personnel and/or subcontractors involved in the installation, maintenance, service, repair or refurbishment of equipment and that all work is carried out under acceptable supervision. Agreement in terms of OHS Act section 37(2) shall be signed between the Department and the contractor.
5.6	It is the Contractor's responsibility to ensure that all possible safety procedures are followed when working on any equipment or structure and to bring unsafe conditions to the attention of the respective Area/Scheme Manager before commencing any service or repair work whatsoever.
5.7	The work area must be in a safe and clean order at all times.
5.8	General Machinery Regulations
5.8.1	It is an expressed condition that the Contractor and his Subcontractor/s shall execute the contract under the supervision of a competent person appointed in accordance with the <b>General Machinery Regulations</b> .
5.8.2	It shall be the responsibility of the contactor to familiarise themselves with the latest edition of the Occupational Health and Safety Act and Regulations (85 of 1993) to ensure that the provisions of the Act are met with consideration to the range of plant (in some instances the power derived exceeding 3000kVA) and equipment with particular reference to General Machinery Regulations 2(1).
5.8.3	The contractor must have a person ready to be authorised in terms of the ORHVS for HV switching as part of their team under this contract.

Being ready for authorisation means the person must have the relevant qualification and the relevant work experience in order to be eligible for authorisation for the specific Departmental sites (someone who has authorisation from other sites such as Eskom, Municipalities, etc.)

## 5.8.3.1 Contractor Employee Authorisation – Supervision, Low voltage, Low and Medium/High Voltage Authorisation

In Low and Medium/High voltage environments, safety is essential. A contractor shall have "authorisation ready person" or authorised person to work on Low or Low and Medium/High voltage systems. Authorization ready/authorized personnel must have at least three (3) years switching experience, valid fire fighting course, valid first aid course, Operating Rules for High Voltage System (i.e. ORHVS all 10 modules) and Electrical trade certificate or National/Degree in Electrical.

Authorisation ready or/and Authorised person will be required to submit detailed Portfolio of Evidence (POE) for assessment and authorisation by the Department of Water and Sanitation.

Information to be submitted by contractor employee/candidate for assessment and authorisation, will include but not limited to the following;

- Current or/and previous authorisation/s certificates
- Abridged Curriculum Vitae of candidate (biographical information, educational history,
- Achievements, work-related experience)
- Biographical Information of Candidate
- Individual Development Plan
- Copy of Candidate's I.D. Document and Qualification
- Cross Referencing of Evidence
- Cumulative Record of Achievement
- Organogram indicating candidate's previous role/s

It is the responsibility of the contractor to ensure that all required information and valid documentation are submitted to DWS for assessment and authorization. Portfolio of Evidence must be continually updated with all the relevant procedures, standards, instructions, courses completed and other relevant evidence.

Assessment and authorisation will allow such operating/switching authorised person to perform switching, linking, safety testing, earthing and issuing work permit apparatus up to and including 33 kV, which could include operating.

Responsible person authorisation shall take a permit and conduct supervision of

	people working under his/her supervision.
	Contractor employee may be required attend training on operations and maintenance specific electrical apparatus (i.e. switchgears/transformers, cables, overhead lines) before authorization by DWS.
5.9	It is the contractor's responsibility to ensure that any appointed subcontractor is familiar and complies with the safety regulations.
5.10	For on-site activities the Contractor/Subcontractor may be required to fully complete the forms as per Annexe A, B, C and D. The forms may not be completed during bidding process.
6.	BID RATES
6.1	Bidded rates
6.1.1	The following prices are required for the different types of services expected, as listed in the Technical Specification and Requirements. All these prices must be given exclusive of VAT and must be valid for the work done at the facilities noted.
6.1.1.1	Hourly labour costs for the different levels of skill.
6.1.1.2	Overtime labour costs for the different levels of skill.
6.1.1.3	Standby labour costs for the different levels of skill.
6.1.1.4	Living out allowances.
6.1.1.5	Accommodation
6.1.1.6	Travelling costs.
6.1.1.7	Transport costs (kilometre tariffs for those vehicles not given).
6.1.1.8	The vehicles engine capacity use for bidding purposes shall be the same as that used during the contract.
6.1.1.9	Large equipment costs.
6.1.1.10	Bidders are encouraged to make use of Mobile Accommodation. The rates for Mobile accommodation submitted with the bid shall be use during the contract.
6.1.2	The Department shall adjudicate and award the Bid on the prices quoted under Price Schedules.
6.1.3	Spare parts shall be purchased or manufactured as necessary. If spare parts must be purchased, spare parts shall only be acquired on written authority from the Department's responsible Employer's Agent's Representative.
6.1.4	Spare parts, materials, goods, services, large equipment hire and other general costs not made up by the bidded rates may be charged on a maximum of a cost plus 10 % basis with the approval of the Employer's Agent or his Representative.

6.1.5	The handling fee in 6.1.4 will be calculated as follows:
	a 10 % mark-up shall apply
	The mark-up will be calculated on the total amount for the sub-contractors, spare parts and materials for the project.
6.2	The Contractor shall only commence with work once an official purchase order is received, Quality Control Plans (QCPs), method statement, design drawings (where applicable) have been approved, Safety File (Accepted by the DWS Safety Officer / Employer's Agent's Representative) and a Departmental work permit has been issued. In the case of an emergency the work can be done on a letter of intent. Official orders may only be issued once a written approval from the Employer's Agent was obtained. Procurement process in Annexure E shall be adhered to at all times.
7.	QUOTATIONS
7.1	All work to be performed in terms of this contract will be preceded by a quotation that results from such a request by the Area Office management. After approval of the quotation by the Employer's Agent; this approval will initiate the placement of an official order. Only in an emergency, and following the departmental guide lines (and applicable delegations) in this respect, can this work be performed without the issuing of such an order. If quotations for emergency work are submitted, it shall be clearly stated and a brief motivation provided why the work is considered to be urgent / an emergency.
7.2	All quotations shall be addressed to the official initiating the work with a copy to the Employer's Agent's Representative and shall include all of the following:
	<ul> <li>This Contract Number.</li> <li>The quotation number.</li> <li>Scheme and Organisation for which the quotation is intended.</li> <li>Detailed Scope of work (This describes the work to be done in detail and specifies the recourses involved and the exact nature of the work to be done.).</li> <li>Hourly labour costs for the different levels of skill.</li> <li>Overtime labour costs for the different levels of skill.</li> <li>Standby labour costs for the different levels of skill.</li> <li>Living out allowances.</li> <li>Travelling costs.</li> <li>Transport costs (kilometre tariffs).</li> <li>Large equipment costs (hourly rates).</li> <li>Compressors (electric or internal combustion engine driven) ≥250cfm,</li> <li>HP washers (electric or internal combustion engine driven) ≥450 Bar, pump submersible ≥100mm, pump self priming (internal combustion engine driven) ≥100mm, electric mobile generator ≥15kVA</li> <li>Material costs.</li> <li>General costs (e.g. consumable, special products, etc.).</li> </ul>
	<ul> <li>Subcontractor's quotations. (where applicable).</li> <li>Detailed project plan indicating start and end of project with dates for inspection and a Quality Control Plan (QCP)</li> </ul>
	No additional cost for personal tools and/or small plant shall be accepted.

	A list of costs of all equipment to be charged for shall be submitted with the Bid.
7.	PAYMENT
7.1	Invoices may be submitted for payment following the successful and agreed completion of the work with a copy for certification to the following address:  Respective Director's Office who placed the order
	Or The Office as agreed upon
7.2	Claims for payment shall be based ONLY on the <b>Service Report Record</b> , which form part of this document and detailed in Bid Requirements, Price Schedules, or any amplification of the PRICE SCHEDULES as submitted at the time of bidding or as approved in terms of a written VARIATION ORDER.
7.3	All invoices for payment shall clearly state the following:
	<ul> <li>(a) This Contract number.</li> <li>(b) The Contractor's quotation number. (where applicable)</li> <li>(c) Departmental order number and office of issue.</li> <li>(d) Scheme and Organisation for which its service has been provided.</li> <li>(e) Scope of work performed.</li> <li>(f) Date of commissioning.</li> </ul>
7.4	The following must be stated in all invoices:
	<ul> <li>(a) Hourly labour costs for the different levels of skill.</li> <li>(b) Overtime labour costs for the different levels of skill.</li> <li>(c) Standby labour costs for the different levels of skill.</li> <li>(d) Living out allowances.</li> <li>(e) Travelling costs.</li> <li>(f) Transport costs (kilometre tariffs).</li> </ul>
	<ul><li>(g) Large equipment costs (hourly rates).</li><li>(h) Material costs.</li></ul>
	(i) General costs (e.g. consumable, special products, etc.).
7.5	Each invoice shall be submitted complete with the following supporting documents:
	a) All delivery notes (complete with all equipment serial/model numbers), duly signed by the Employer or his designated representative, for all equipment delivered to site.
	<ul> <li>b) All supporting documentation i.e. invoices of suppliers or Subcontractors.</li> <li>c) Accommodation invoices (NO proforma invoices allowed during invoicing stage)</li> </ul>
	<ul><li>d) Duly signed commissioning certificate.</li><li>e) Service reports.</li></ul>
	f) Certified log sheets of officials. g) Certified time sheets of personnel employed on the project.
7.6	Requests for partial invoicing and part payment will be considered on an individual basis and must be duly covered by the material or equipment delivered to site or by services rendered by suppliers.

	Part payments will be done once per month per project/deliverable as agreed with the Employer's Agent or his Representative.
7.7	No final payments will be made if all updated Operating Manuals and/or drawings have not been submitted.
8.	TESTING AND COMMISSIONING
8.1	Comprehensive Quality programmes with appropriate hold points shall be drawn up and agreed with the Employer's Agent's Representative. These agreed quality plans must accompany the work acceptance letter and the Employer's Agent or his Representative reserves the right to add hold points for his attention. Since the programme is at that stage not fixed, the Employer's Agent's Representative must be informed at least 5 working days before the actual hold points set by him/her is reached. These quality plans shall be strictly adhered to during refurbishment or manufacturing.
8.2	All equipment refurbished, upgraded or repaired in terms of the requirements of this contract shall be set up at the Contractor's or Subcontractor's works for thorough inspection and testing by the Employer's Agent's Representative BEFORE being transferred to site. The equipment shall only be delivered to site upon satisfaction of the Employer's Agent's Representative and the Employer's Agent's Representative reserves the right to carry out quality checks for any transport damages to equipment upon arrival on site. All costs involved for the repairs shall be borne by Contractor. All work performed in the scope of this Contract shall be reported upon in the form of acceptable reports/test certificates etc. at no extra cost.
8.3	Any faults, deviations, etc. from the specification discovered during this inspection and testing opportunity at the Contractor's works shall be fully rectified BEFORE any equipment is transported to site.
8.4	Final testing will be performed on site during commissioning of the installation.
8.5	The Contractor shall submit all test and calibration certificates received from specialist suppliers to the Employer's Agent's Representative for his approval.
8.6	Only competent person as defined according ECSA Act of 2000 or any other official directed in writing by a competent person may sign the Commissioning Test Certificate.
9.	SERVICE/TEST REPORTS
9.1	The Contractor shall provide a spreadsheet every two weeks containing all tasks performed under this contract. There shall be a separate list for each Operational Area. Each list shall contain various headings i.e. work Received, acceptance letter Submitted, work value, Awaiting Payment, Work In Progress, Comments, etc.
9.2	Service/Test reports shall be provided on all activities and tests performed at the request of the Employer's Agent's Representative.
9.3	Where applicable no invoices shall be approved for payment if not accompanied by a full service report, stipulating inter alia the work performed, parts replaced, daily

	site diary, practical completion certificates, testing and commissioning certificates and any applicable comments.
9.4	The Department requires a daily service report for all work done either on site or in the Contractor's or any Subcontractor's workshops. Where services are performed on site, the daily report shall be signed by a site representative and a copy left on site for Departmental records. In addition to the above daily report, a comprehensive report shall be compiled after completion and submitted with invoices.
9.5	A copy of the daily service reports shall be available for inspection at all times during the duration of the project both on site and at workshops.
9.6	<ul> <li>The service reports shall reflect the following information:</li> <li>The contract number,</li> <li>Scheme and organisation for which services is intended,</li> <li>Comprehensive scope of work,</li> <li>Subcontractor's name and list of personnel on site,</li> <li>List of personnel on site (names and manpower level)</li> <li>Arrival and departure times,</li> <li>Materials and spares used.</li> <li>Kilometres travelled.</li> </ul>
10	GUARANTEE PERIOD AND DEFECTS LIABILITY PERIOD
10.1	When the work for which a purchase order has been issued is deemed to be satisfactorily completed a Commissioning and Completion Certificate will be issued and the guarantee period shall commence.
10.2	The guarantee period for any work done shall be at least one year from the date as specified or may be increased as required and agreed by the parties.
10.3	The guarantee period for spare parts or materials acquired or manufactured shall be one year from the date of Commissioning, unless otherwise specified by the suppliers thereof.
10.4	During the guarantee period the Contractor shall rectify at its own cost any defects that are attributable to faulty material or workmanship.
11	SPECIALIST CONTRACTOR
	Specialist Contractors may, depending on bids received be appointed for the following services:
	Electrical:
	Medium voltage switch gear and protection HV cables and overhead lines Earthing and lightning protection Capacitor banks Variable Speed Drives and Soft Starters Control and Instrumentation

	Cathodic Protection Telemetry Software, programming, networking and supporting Telecommunications Electrical Security Systems Motors
	Mechanical:
	Cranes and lifting equipment Specialist Valve and Actuator Manufacturers Pump Manufacturers Hydraulic power packs Actuators
	Departmental lifts repair, service and maintenance: ONLY when the Department has no lifts maintenance term contract in place, subcontracting of lifts' service providers may be required.
	Underwater diving services: ONLY when the Department has no diving term contract in place, subcontracting of diving contractors may be required.
11.1	Only Specialist Contractors will be appointed under this Clause.
11.2	The minimum criteria for appointing / approving Specialist Contractors are as follows:
	Must be the original equipment manufacturers (OEM), certified local agents or specialist in this field.
11.3	The Specialist Contractor may be required to do the necessary repairs in coordination with the main Contractor.
12.	SUB-CONTRACT WORK
12.1	If the services of a subcontractor are obtained, the Contractor shall compile a scope of work (This describes the work to be done in detail and specifies the resources involved and the exact nature of the work to be done) and a specification before requesting the Subcontractor to quote on the work. In cases where comparative quotations are requested, the Subcontractors quotations shall reflect the scope of work and specifications compiled by the Contractor.
	In order to enhance transparency, the contractor's invitation to potential subcontractors to provide quotations shall also be copied to the Employer's Agent's Representative. Such invitations to quote must clearly state a closing time and copies of quotations must also be sent to the Employer's Agent's Representative within the 30 minutes before the stipulated closing time. Only quotations received as stipulated will be considered when evaluating the quotation from the main contractor.
	In cases where a site meeting is required in order to prepare a realistic quotation, a copy of the attendance register, duly signed by a DWS representative, must also be copied to the Employer's Agent's Representative.

	The successful Subcontractor's quotation shall be subject to the mark-up as per paragraph 6.1.4.
12.2	At least three quotations from different Subcontractors shall be submitted with main contractor's quote if Subcontractors are to be used.
12.3	At least three quotations from different suppliers shall be submitted with the main contractor's quote if suppliers are to be approached to supply spare parts and or material.
12.4	The Department reserves the right, at the discretion of the Employer's Agent or his Representative, to request comparative quotations for spares and / or subcontractors.
12.5	The Department reserves the right, at the discretion of the Employer's Agent or his Representative, to request additional quotations.
12.6	During quotation and invoicing stage discounts offered to the main contractor from the sub-contractor must be disclosed to the Department. The main contractor will be paid in accordance to the actual cost and/or work done by the subcontractor/supplier plus mark up, refer to 6.1.5.
12.7	The contractor will be required to enter into subcontracting agreements with Specialist subcontractors for Electrical works and other related works.
12.8	The Department reserves the right to identify and implement procurement opportunities for designated groups where compulsory sub-contracting must be applied to any projects within this three year contract. This requirement shall be in line with the "Preferential Procurement Regulations, 2017".
12.9	It is the responsibility of the contractor to select competent Subcontractors that meet the requirements of this bid.
12.10	The contract will be concluded between the main contractor and the Department, therefore, the main contractor and not the sub-contractor would be held liable for performance in terms of this bid's contractual obligations.
12.11	It is <b>compulsory</b> that contractors select sub-contractors from the CIDB (Construction Industry Development Board) database who are registered on the CSD (National Treasury: Centralized Supplier Database) for the purposes of compliance with the minimum 30% compulsory sub-contracting provisions.
12.12	The contractor shall submit subcontracting agreements between the main contractor and the subcontractor. Failure to submit subcontracting agreements shall render your bid non-responsive.
12.13	Should Subcontractors be proposed for use, details shall be submitted to the Employer's Agent for approval.
12.14	Only approved Subcontractors may be used under the Contract.
12.15	Bidders shall submit with bids the details, names and addresses of all Subcontractors whom they propose to employ for any work listed as Activities to be Performed. These will be approved/not approved by the Employer's Agent before

	awarding this Contract. Payment of these Subcontractors will be the responsibility of the Contractor.
12.16	Should new sub-contractors be proposed for use within the scope of work described in Activities to be Performed during the course of the contract, approval by the Engineer must be obtained prior to appointment.
12.17	The minimum criteria before appointing / approving subcontractors are as follows:
	The Subcontractor's taxes must be in order. The Subcontractor shall submit a valid Tax Clearance Certificate to the Employer's Agent. During the contract period the Contractor/ Subcontractor shall ensure that a valid Tax Clearance Certificate is available at all times.
	It is an expressed condition that the subcontractor shall execute work under the supervision of a person appointed under <b>General Machinery Regulations</b> .
	A proposed list of capabilities of a Subcontractor shall be submitted for approval of such an appointment. The subcontractor's works may be inspected.
12.18	The Department may, at the discretion of the Employer's Agent, nominate subcontractors and these shall be deemed to be Nominated Subcontractors. The Department shall motivate the use of Subcontractors with their maintenance work.
12.19	When a Nominated Subcontractor is used, the Contractor may charge a mark-up for administration and financial costs. The mark-up will be in accordance with Paragraph 6.1.5.
12.20	Appointing a Nominated Subcontractor shall not diminish the Contractor's responsibility to the Department. The Contractor shall be solely responsible for all work performed under this Contract.
12.21	The Contractor shall ensure that any Subcontractor appointed is familiar with the conditions of this contract and comply in all respects with the requirements as set out in this document.
12.22	The Department further reserves the right to suspend the services of a main Contractor who fails to make payments to the appointed Subcontractor / Nominated Subcontractor / designated group compulsory Subcontractor for the actual work done, provided that the work has been accepted by the Department.
12.23	Main contractors are discouraged from sub-contracting with their subsidiary companies as this may be interpreted as subcontracting with themselves and / or using their subsidiaries for fronting.
12.24	The Department reserves the right to terminate a contract with any Contractor who fails:
	i. to comply with the minimum 30% compulsory sub-contracting provisions (where applicable).
	ii. to make payments to their appointed and DWS approved Subcontractors for the actual work done. Payments to Subcontractors shall be made within 30 days of receiving payment from DWS.

40	CAPABILITIES OF BIDDER
13.	CAPABILITIES OF BIDDER
	The contract DWS03 0621WTE for the Mechanical and Other Related Major Plant and Machinery Installation, Maintenance, Repair and Refurbishment for the Operational Area is a major contract.
	The Contractor shall have the necessary capability to accomplish the administrative, technical and financial burden required under this Contract. The Contractor must be able to visit sites, receiving and placing of orders, initializing and completing the work, ensure/control quality throughout the project, compiling completion, commissioning certificates and invoices. The Contractor requires extensive personnel and financial resources to successfully handle the contract.
13.1	Administrative and Technical Personnel
	The Contractor shall need suitably qualified administrative personnel to handle the administrative duties on the contract. The administrative resources of the Contractor will be taken into consideration during the adjudication of the contract. These overhead costs shall be included in the labour rates. Technical personnel such as engineers, technicians, artisans, safety officers, project managers, etc. will not be allowed to claim for handling administrative duties such as quotations and invoices.
	Technical personnel utilised on the contract shall be suitably qualified.
	The Bidder shall submit, with their bid, a complete list of personnel (from the rank of Artisan upwards) to be involved with this contract together with summarised Curriculum Vitae. The summarised Curriculum Vitae shall indicate details such as name, age, nationality, date of nationality, including qualifications and relevant experience.
	The bidder shall also submit an organogram of those individuals. Find attached an example of summarised Curriculum Vitae and a blank Curriculum Vitae form to be filled in for those individuals.
	Personnel: Individuals in the permanent employment of the contractor and on 75% availability for the duration of the contract period.
	The contractor shall at all-time keep the list updated for his and his sub-contractor's staff.
13.2	Engineer
	Engineers shall be in possession of an appropriate four-year Bachelor's degree in Engineering or equivalent qualification as prescribed by the Engineering Profession of SA Act (1990) plus appropriate four years experience in related field after registration as a Professional Engineer with ECSA.
13.3	Technician
	Technicians shall be in possession of a Diploma for Technicians with at least four years of appropriate experience in the respective field or be in possession of an appropriate National Diploma: Engineering or B Tech Degree: Engineering

	Qualifications that are offered by Universities of Technology (former Technikons) as accredited by ECSA.
13.4	Project Manager
	Project Managers shall have applicable technical and managerial qualifications and at least ten years experience in a related field.
13.5	Specialist Artisan / Foreman
	A Specialists Artisan shall be a highly skilled artisan or technician in the specialist field with additional qualifications and a minimum of three years' experience in the applicable specialist field.
13.6	Artisans
	Each Artisan staff shall be in possession of an appropriate National Certificate (Trade test certificate) as accredited by the South African Qualifications Authority. An artisan qualified for example as a diesel mechanic is not suitably qualified to be considered an artisan on valves, cranes, welding, etc.
	The Department requires the details and qualifications of personnel working for the Contractor or any subcontractor be submitted for approval before employment on any of the Departmental Projects.

14.	WORKSHOP FACILITIES
	The contractor must have the facilities or have acceptable formal written agreements with associate companies for the contract period to do a preponderance of the work listed in Technical Specification and Requirements.
	It is not compulsory for the subcontracted designated group contractor to have workshop facilities.
	In areas where the main Contractor enters into a subcontracting agreement with a Contractor that has a workshop in that area, it is not compulsory for the main Contractor to have a workshop in that area.

Minimum workshop facilities requirement are as follows: A closed, under cover, ventilated workshop facility complying with the Occupational, Health and Safety Act. An overhead crane with a capacity of not less than 5 Ton or have the capability to lift loads of 5 Ton. Lathe(s), milling machine(s), pedestal drill, hydraulic press, welding machine. Stripping and cleaning bay. Abrasive blasting area. Corrosion protection bay. Testing and quality control area. Quality control equipment for mechanical/electrical engineering and corrosion protection. The following equipment is considered to be an example of standard workshop equipment and will thus not attract any hire costs: General tools i.e. sockets, open and ring spanner sets, pliers, shifting and pipewrenches, hammers and torque wrenches. Use of computer, electrical extension leads, lighting, Airless spray pump Electric 30 MPa Flogging spanners, Airless spray pump 45:1, Airless spray pump 63:1, QC instrumentation Power tools: (pneumatic or electrically driven tools) Drills and drill bits, pedestal drills, angle grinders, bench grinders, die grinders, power generators to power hand tools, lifting equipment. Compressor, standby generator, fork lift trucks and cranes. Lathe, milling machine, hydraulic press, blast pot/pipes/nozzles. Oxy-acetylene sets (bottles, gauges and torches), Welding machine and associated equipment. Vacuum cleaners, extractor fan, spray gun gravity, spray pot pressurised inc. gun. 15. QUALITY CONTROL 15.1 The Contractor and / or Subcontractor shall comply with DWS 2020 and have a Quality Control Plan for all work performed under the Contract. The Quality Control Plan and specification shall be submitted together with the acceptance of work. A pro forma Quality Control sheet shall be submitted with the Bid. 15.2 All equipment, materials used and workmanship performed shall be as required and described in terms of this Contract and the Employer's Agent's or his Representative's instructions and shall be subjected to such tests conducted by such persons as the Employer's Agent or his Representative may direct from time to time. These tests may be conducted at the place of manufacture, at the Contractor's Works, on site or at any or all of the aforementioned places. 15.3 The Contractor shall supply such assistance, instruments, machines, labour and materials as will normally be required for the examining, measuring and testing of any work or the quality of materials used. 15.4 For the purpose of quality surveillance, the Employer's Agent's or his Representative

	shall be granted access to any part of the Contractor / Subcontractor works relevant to the work being carried out, at any reasonable time. The Specification and Quality Control Plan shall be available at all times during quality surveillance.
15.5	Any changes to the scope of work during inspections shall be communicated to the Contractor / Subcontractor in writing. Verbal instructions / agreements are not acceptable. No changes to the scope of work with an effect on the project cost shall be accepted without the approval of the Employer's Agent or his Representative.
15.6	The cost of performing all tests as clearly intended by or provided for in this Specification shall be borne by the Contractor.
15.7	All individual sub-systems shall be set up at the Contractors Works for the performance of functional and operational tests, so as to prove satisfactory operation thereof as a working system. The Employer's Agent or his designated representative shall witness these tests. Each system shall only be released for transfer to site when so authorised by the Employer's Agent or his designated representative. UNDER NO CIRCUMSTANCES SHALL SYSTEMS BE TRANSPORTED TO SITE BEFORE THE SUCCESSFUL COMPLETION OF THE ABOVE-MENTIONED FACTORY TESTS.
15.8	The Employer's Agent or his designated representative shall be notified in writing of the completion of all systems/subsystems for the purpose of factory tests. Such notification shall be given 7 days in advance.
16.	MAINTENANCE
16.1	PERIOD OF MAINTENANCE
16.1.1	The minimum maintenance period, which is acceptable in terms of this Contract shall henceforth be applicable to ALL work performed under this contract, shall be 12 months. This period shall commence from the date of issue of the Commissioning Certificate.
16.1.2	The period of maintenance, with respect to all equipment/systems, that has been factory tested, installed and accepted by the Employer's Agent or his designated representative, will commence on the date of acceptance, as signified IN WRITING by the Employer's Agent or his designated representative.
16.1.3	In the event of the Contractor being required to rectify/repair or being in the process of rectifying/repair of defects/faults prior to or at the date when the Period of Maintenance is due to expire, the Employer's Agent or his representative shall have the right to extend the Period of Maintenance in respect of the portion of the Works being or to be rectified/repaired, until such work has been completed. The 'Period of Maintenance' shall be held to include any such extension.
16.1.4	The period of maintenance shall be concluded with an inspection where after a certificate of final completion shall be issued by the Employer's Agent or his representative.
16.2	Contractors obligation during the Maintenance Period
16.2.1	During the period of maintenance, as described in this section, the Contractor shall maintain and keep all systems and sub-systems in a complete and operational condition, to the satisfaction of the Employer's Agent or his representative.

16.2.2 The Contractor shall be required to proving representative with written 3-monthly reports:  - indicating the status/condition of the variable - summarising all work performed during to summarising all work performed.  16.2.3 Should any of the systems as installed cease Period of Maintenance, the contractor shall be fault within a period as required by the Employer cost to the Department. If in the opinion of deemed to need urgent repair the Contractor house day and 7 days per week.  16.3.1 All work to be carried out by the Contractor of described in par 16.1. shall be at his own expension of the Employer's Agent or his Rematerials or defective design not in accordance failure on the part of the Contractor to comply contract.	ous systems. he preceding period.  e to operate satisfactorily during the obliged to investigate and repair the er's Agent or his representative at no the said representative, the fault is olds himself available for 24 hours per during the Maintenance Period  during the Period of Maintenance as ense if the necessity thereof shall, in epresentative, be due to the use of with the Contract or due to neglect or
- summarising all work performed during to 16.2.3 Should any of the systems as installed ceased Period of Maintenance, the contractor shall be fault within a period as required by the Employer cost to the Department. If in the opinion of deemed to need urgent repair the Contractor hold day and 7 days per week.  16.3 Cost of execution of work (investigation/repair) of described in par 16.1. shall be at his own expert the opinion of the Employer's Agent or his Rematerials or defective design not in accordance failure on the part of the Contractor to comply	to operate satisfactorily during the obliged to investigate and repair the er's Agent or his representative at no the said representative, the fault is olds himself available for 24 hours per during the Maintenance Period  during the Period of Maintenance as ense if the necessity thereof shall, in epresentative, be due to the use of with the Contract or due to neglect or
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16.3.1 All work to be carried out by the Contractor of described in par 16.1. shall be at his own expet the opinion of the Employer's Agent or his Rematerials or defective design not in accordance failure on the part of the Contractor to comply	luring the Period of Maintenance as ense if the necessity thereof shall, in epresentative, be due to the use of with the Contract or due to neglect or
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Contract.	
16.4 Materials used for repair during the Period of Ma	aintenance
When, in the opinion of the Employer's Agent used or intended for use is not in accordance whe/she may order the Contractor in writing to material immediately and to replace it with additional cost to the Employer.	with the requirements of the Contract, remove any objectionable part of the
16.5 Maintenance and Servicing Facilities	
16.5.1 Each Bidder shall be able to clearly demonstrated and maintenance facilities, including a composition of the Employer's Agent or his representation.	rehensive range of spares, to the
To this effect, each Bidder shall include a state available for servicing and maintenance, as spares for the equipment (offered) in his bid.	
As a further requirement, the precise physical soft the premises nearest to this installation, who exist, together with details regarding test equavailable at this address, shall be furnished along	ere these as stated required facilities uipment and personnel permanently
16.5.4 Bidders shall accept as a condition of this contrastatement may be inspected prior to the award that offers may be passed over where, in the operation of this contrastation in the operation of this contrastation in the operation of this contrastation of the contrastation of this contrastation of this contrastation of the contrastation of the contrastation of this contrastation of the c	ling of the contract. It shall be noted pinion of the Employer's Agent or his
Personnel used for any work ordered during appropriately qualified and skilled with proven installation in question at all times.	

16.7	Fault
16.7.1	All faults and problems experienced shall be reported to the Contractor by telephone, followed by written confirmation thereof via fax or via email. The Contractor shall promptly acknowledge receipt of such fault report and shall make the necessary arrangements to get the fault/problem attended to within a period of time acceptable to the Employer's Agent or his representative.
16.7.2	The Employer's Agent or his representative shall keep a fault report book on site. The Employer's personnel shall enter all faults experienced into this book. The Contractor shall countersign next to the reported fault once the fault have been attended to and rectified, complete with time and date of repair.
17	DOCUMENTATION
17.1	The contractor shall ensure that ALL the relevant documentation required as pertaining to ALL aspects of the equipment and systems as supplied and called for under this contract, is COMPLETE AND THOROUGH in all aspects, to enable staff to operate, understand and maintain the equipment and systems fully and to utilise the equipment to its full potential.
17.2	All the documentation called for below, except where otherwise noted, shall be made available BEFORE- installation and commissioning of the equipment will take place. Bidders should note that NO commissioning would be considered by the Employer's Agent or his representative until such time as these conditions are met.
17.3	The Contractor shall make provision for the following documentation to be supplied in terms of this contract:
17.3.1	A commissioning record as described below:
17.3.1.1	To this extent, the Contractor shall ensure that these manuals called for, are so prepared that in the opinion of the Employer's Agent or his representative, a competent and qualified technician can trace any fault, identify any defective component, replace it with the correct spare and follow, without any difficulty, the exact function of every component. To this end, care shall be taken to correlate the text with the circuit diagrams, to relate the diagrams with one another and to provide a simple method of diagnosis and test to be used wherever problems and faults occur.
17.3.1.2	The Contractor shall keep accurate record of all tests carried out and the results thus obtained; all meter readings taken of critical system parameters after installation of the equipment, etc. This information shall be contained in the commissioning manual, which will form the reference to which system performance will be equated during and after the maintenance period have elapsed.
17.3.2	Service manual
	The relevant service manuals supplied shall contain complete equipment schematics; test and alignment procedures, all circuit diagrams, all spares and parts lists and complete troubleshooting procedures. NOTE: NO Photostatted (Photocopied) material will be acceptable.
17.3.3	Design and layout changes

	When any changes to the design or layout of any system are made during the maintenance support or refurbishment of the equipment or scheme, the changes shall be indicated in the Operation and Maintenance Manuals. These changes shall also be documented on detailed drawings. Drawings of new equipment shall be submitted to the Department.
17.4	Documentation
17.4.1	Binding
	The manuals shall be securely bound in A4 size durable, hard-backed plastic, 4 ring binders with a black finish, with clear pockets on the spine and front cover for insertion of title slips containing the contract number, etc. Complete title slip information will be supplied by the Department to the Contractor at an appropriate time. Drawings larger than A4-size shall be contained in separate pockets.
17.4.2	Layout
	A master index, indicating the different sections incorporated into the manual, shall be required. Furthermore, the sections shall be divided with plastic separators, clearly and visibly marked to match the master index, complete with title page and sub-index.
17.4.3	A minimum 2 (two) manuals and 2 (two) electronic format (in a compact disc) must be supplied to the Area Manager or his representative with an additional manual and electronic format to be forwarded to the Directorate: Strategic Asset Management.
18.	DRAWINGS
	All drawings submitted to the Department shall be in accordance with the "Standards for the preparation of Mechanical Engineering Drawings" that can be obtained from the Chief Directorate: Infrastructure Operations and Maintenance. A title block containing Departmental information in accordance with type drawing BF 1819 (obtainable from Chief Directorate: Infrastructure Operations and Maintenance) must be included on each drawing sheet. Drawings must be submitted in electronic and printed formats.
	Standard Specification: DWS 1602 "Preparation of Mechanical and Electrical Engineering Drawings" shall be applicable. A copy of the standard specification may be obtained from the Chief Directorate: Infrastructure Operations and Maintenance.
19.	TRAINING
19.1	In order for the Department to comply with the National prescript on Skills Development, the Department reserves the right to send its own staff to be trained by the successful Bidder. On acceptance of this Bid, the successful Bidder undertakes to share resources, skills & knowledge with our staff.
19.2	In terms of the requirements of this contract the Contractor may be required to facilitate training from time to time.
19.3	Such training shall include: operation, special maintenance requirements and aspects of design, fabrication and assembly.
19.4	Training to be provided by the Contractor shall be directly applicable to the actual

	equipment being installed on site. Training may be ordered to take place at the following locations:
19.4.1	Training at the Contractor's Works.
19.4.2	Training on site.
19.5	Training at the Contractor's Works will be provided for the Employer's technical staff only. This will entail a detailed practical workshop session, sufficiently comprehensive to enable the Employer's technical staff to locate and correct problems on site. Attention will be given to all aspects of the maintenance, servicing and fault finding procedures on all equipment supplied. The Contractor will provide all course material, including manuals. For the purpose of compliance regarding the supply of documentation as required per par. 15 (DOCUMENTATION), all manuals provided to the Employers staff will be deemed as subtractable from the total copies to be supplied, as called for above. The Workshop will be attended by a minimum of two persons appointed by the Employer.
19.6	First-line maintenance training on site will be provided for the Employer's site personnel, preferably during the installation period and definitely before the date of acceptance.
19.7	In view of the above and to allow personnel to become familiar with the equipment and installation, the Employer reserves the right to appoint certain staff to the Contractor's team during installation and commissioning phases. A maximum of two people shall be appointed in this way if considered necessary.
19.8	At the conclusion of the respective training periods, the Engineer will evaluate the training provided and will subsequently issue a signed statement to the Contractor, should it be found that these training sessions were adequate.
20.	SPARES
	A list of spares to be supplied in terms of this contract is included in the 'SCOPE OF SUPPLY'-section in the Detail Specification. The Contractor shall recommend all spares that would be required on site for emergency repairs, to prevent excessive system downtime. The unit cost of each item shall be indicated to the Employer's Agent or his Representative for consideration. Items with limited shelf life shall be indicated as such.
21.	ESCALATION
	The labour rates in the Bid document shall be firm for 12 (twelve) months where after it may be escalated in accordance with final SEIFSA indices. The indices from table C3 (a) shall be used for the calculations.
	Escalation of rates may be applied for to the Employer's Agent or his Representative when the SEIFSA rates have been published.
	All escalation calculations will be based on final or confirmed officially published indices and not provisional indices. Therefore, escalation calculations may only be applied a minimum of 2 months following certification for payment of progress invoices due to the timing of the SEIFSA indices publications.  Materials purchased using the "cost plus agreed mark-up" method of pricing will be
	considered "current" and will not attract escalation adjustment.

	Prices/Rates/Variations quoted for work for which no contract rates exist, shall be considered current, and quoted as such, and will not attract escalation adjustment.
	Transport rates shall be updated in accordance with the Department of Transport tariffs. No back dated adjustments of transport rates will be accepted.
22.	PERFORMANCE OF CONTRACTOR
22.1	Should it be found at any stage of the contract period that the services performed or any component thereof deviates from the specified requirements and that such deviation had not been noted by the Contractor in his bid offer that was accepted, the Contractor will be required to redo such services or any component thereof with work complying with the requirements specified in the documents listed above, at no extra cost to the Employer.
22.2	If at any stage of this contract it is found that the Contractor has deviated from the requirements of this specification whether it be by the installation of equipment not specified, etc. or otherwise, without prior WRITTEN consent from the Employer's Agent or his Representative, the Employer's Agent or his Representative shall have the right to order the Contractor to remove such items, equipment, etc. constituting the deviation and to replace it with the exact item, equipment, etc. specified, without any adjustment in the quoted price.
22.3	Remedy for Contractor's failure to carry out work as required.
22.3.1	Should the Contractor fail to commence investigation/repair as required within a period of 10 days after receipt of written notice thereof, the Employer shall be entitled to have such work carried out by his own staff or by other Contractors at the Contractor's account.
22.3.2	If such work is work that the Contractor should have carried out at his own cost, as detailed below, the Employer shall be entitled to recover the cost thereof from the Contractor or deduct the same amount from any moneys due or that will become due to the Contractor.
22.4	Penalties
	The Engagement Model / Procurement Guideline shall indicate how the Department will deal with Bidder's Non-performance and penalties.
23	PERFORMANCE BOND
23.1	The Department requires a performance bond in the form of a Bank Guarantee on work rendered under the Contract (where applicable). A Performance Bond will thus be calculated on the total expected amount of the work rendered during the first six months of the contract. The Performance Bond will remain in place up to the end of the Guarantee Period being one year after the contract has expired.

24	GENERAL GUIDELINES FOR THE CONTRACT
24.1	<ul> <li>To facilitate the contractor to issue a quotation, it is important to make out a RFQ (Request for Quotation) in three copies.</li> <li>This document must contain as much details of what is required, as possible.</li> <li>Indicate the full scope of work, specification and intended program.</li> <li>It must also be clearly stated what work will be done by the Department; for instance disconnecting equipment, transporting of equipment etc.</li> </ul>
24.2	This RFQ document can also serve as a permit to enter and inspect the equipment to be quoted for. Access to site shall be communicated and agreed with the Employer's Agent or his Representative.
24.3	The RFQ must be signed by the Area Manager or his appointed representative.
24.4	Copies of the RFQ must be sent to the Contractor and DWS Head Office (Chief Director: Infrastructure Operation's office). A copy must also be retained on the Area Office file.
24.5	The Contractor shall prepare a quotation as per the approved rates. Copies of the quotation will be forwarded to the Area Office and to the Employer's Agent or his Representative. All enquiries by the Area Office and Employer's Agent or his Representative shall be addressed before an order may be placed and work may commence.
24.6	The allocation of work on this three year term contract <u>may</u> be subjected to price negotiation.
24.7	The Area Office will, with the written consent of the Employer's Agent or his Representative, issue an official purchase order. No work shall commence without an official purchase order, approved Quality Control Plan (QCP) and a DWS work permit. On emergency / urgent occasions work may be done following the relevant Departmental emergency / urgent delegation approvals.
24.8	A copy of the order must be sent to Head Office (Chief Director: Infrastructure Operations and Maintenance).
24.9	Where equipment is refurbished (i.e. pump, motor, valves etc.) quality control is essential. The technical staff of Head Office and/or Regional Office will carry out the inspections as stated in the Quality Plan as agreed on before commencement of the work.
24.10	The Contractor must inform the Employer's Agent or his Representative and the Area Manager at least a week in advance when equipment will be delivered, and when the Technical staff of the scheme will be required to do connections etc.
24.11	When the work is completed, the Contractor's completion certificate must be completed, signed by the Employer's Agent or his Representative and Area Manager or his appointed representative and sent to the Contractor, so that they can make out the invoice for payment. A copy must also be sent to Head Office.

### ANNEXE A:

# DEPARTMENT SECURITY RULES AND REGULATIONS FOR CONTRACTORS

#### DEPARTMENT SECURITY RULES AND REGULATIONS FOR CONTRACTORS

All Contractors / Subcontractors / Companies / Persons who perform any tasks on the property of the Department of Water and Sanitation will have to complete the following documents and familiarise themselves with the contents thereof. Before you will be allowed to commence with the work the responsible officer will have to ascertain that:

- the Contractor / Subcontractor is familiar with the Occupational Health and Safety Act, Act No. 85 of 1993, as amended and will comply with the Act
- · the workers have been equipped with the necessary safety equipment and
- · these are in a good condition and
- the worker(s) have been briefed about the precautions
- first aid equipment is available
- person(s) on site has knowledge of basic first aid
- the Contractor/ Subcontractor is familiar with the general safety rules and regulations
- all work will be carried out under constant supervision of the Contractor
- the Contractor/ Subcontractor is registered with the Compensation Commissioner
- the Contractor/ Subcontractor abides by the lock-out systems and does a zero energy lockout with his own locks to prevent untimely activating of equipment.
- the whole works and all tools and materials will be at the sole risk of the Contractor/ Subcontractor until final completion, testing and hand-over
- hot work permits are issued where required (for welding work & all work where open flames are present) General Safety Regulations 9 (5)
- fire fighting equipment is suitable and adequate for all the jobs, wherever it is done.
   (supplied by the Contractor/ Subcontractor)
- respiratory equipment is used in confined areas when chemicals are used
- safety harnesses and life-lines are used where necessary
- lifting equipment have load test certificates (the owner of the equipment is responsible)
   Operators must have training in use of lifting gear

Contractor/ Subcontractor must abide by the security rules namely:

- Register must be completed for every visit and fire-arms must be declared
- Identification must be provided by person in control
- All goods brought onto premises must be declared and goods may only be removed accompanied by a removal document signed by the officer in control.
- Speed is limited to 40 k/h within the boundary of the Department

### **DEPARTMENT SECURITY RULES AND REGULATIONS FOR CONTRACTORS**

<u>I/We na</u>	amely:					
ADDRE	ESS:					
	_					
POSTA	AL COD	E	TELEPHO	ONE		
being	(a) (b)	the Main Contractor the Subcontractor	*Delete where not applical	ole		
Appoin	ted by [	Department of Water and	Sanitation			
1		Acknowledge having receiving a copy of the Department health, safety and security rules and regulations concerning contractors.				
2	Appoint as our representative and the responsible person on site for the duration of my /our work on the premises of The Department of Water and Sanitation					
3	Authorized by					
4	N.B					
	(a) This appointment is to be completed by all contractors, as well as every sub-contractor appointed by the Main contractor and is to be handed to the Area Manager or the officer in control by the appointee prior to the commencement of any work on the premises of the Department of Water Affairs.					
	(b) Wherever a contractor work on the premises/subsidiaries of the Department of Water and Sanitation from time to time or on a Continuing basis, this contract shall be valid for one year with the effect from date of contract.					
	I/We also understand and undertake to familiarise ourselves with the contents of SECTION 37(2) of the Occupational Health and safety act. Act 85/1993.					
	Signed	CHIEF EXECUTIVE OF	FFICER son in control of Contract)	Date	20	

### **ANNEXE B:**

# CONTRACTORS INFORMATION FOR COMPENSATION COMMISSIONER'S PURPOSE

# CONTRACTORS INFORMATION FOR COMPENSATION COMMISSIONER'S PURPOSE

	FIRM:
	ADDRESS AND TELEPHONE NUMBER
	REASON FOR BEING ON OUR PREMISES:
	COMMENCING DATE OF WORK:
	DATE AT COMPLETION OF WORK:
	IS YOUR FIRM REGISTERED WITH THE COMPENSATION COMMISSIONER:
	YOUR REGISTRATION NUMBER:
	NUMBER OF STAFF ON OUR PREMISES:
	SUPERVISOR'S NAME :
	DID YOUR FIRM NOTIFY THE DEPARTMENT OF LABOUR OF YOUR PRESENCE AT OUR PREMISES:
	PROVIDE A COPY OF THE AUTHORISATION OF THE COMPETENT PERSON ON OUR PREMISES
	AND HIS TELEPHONE NUMBER AT WORK:
	NAME OF THE RESPONSIBLE PERSON OF YOUR FIRM FOR LIAISON PURPOSES WITH TH
[	DEPARTMENT OF LABOUR
	AND HIS TELEPHONE NUMBER:
	NAME LIST OF ALL STAFF MEMBERS ON OUR PREMISES:

### **ANNEXE C:**

# SAFETY AND SECURITY INSTRUCTIONS FOR CONTRACTORS

#### SAFETY AND SECURITY INSTRUCTIONS FOR CONTRACTORS

#### **GENERAL**

- Failure to comply with the contents of this document could result in legal prosecution by the Department of Labour, Planning and/or result in unnecessary costs to the contractor.
- Contractor's Supervisors and employees will be required to comply to the OCCUPATIONAL HEALTH & SAFETY ACT and with all risk and Loss Control Standards.
   Health and Safety representatives as required by Section 17 of the OSH ACT will be appointed to assist the responsible person to comply with this act.
- All work carried out by contractors shall be under constant supervision.
- Contractors to inform security one day before they intend coming onto the premises at the latest 16:00.
- No contractor will be allowed on the premises if they are not registered with the COMPENSATION COMMISSIONER and Department of Labour.
- Contractors will only be allowed to enter the premises with a valid Identification.

#### ACCIDENT/INCIDENT'S TO WORKMEN AND PUBLIC LIABILITY

- 1. The contractor shall indemnify the Department of Water and Sanitationagainst liability for all claims, demands, costs, proceedings, charges, expenses and compensation payable by law or by Industrial Council Agreement in respect of or in consequence of any accident or injury to any workman or other persons engaged in or upon the services of the Contractor or Sub-Contractors, or any public liability or third party claim against the Department of Water and Sanitationresulting from the activities of the Contractor or Sub-Contractor.
- The contractor shall ensure; in it's own name, against liability for all such claims, demands, costs, proceedings, charges, expenses and compensation and shall continue such insurance during the whole time that any persons are employed by it or the Contractor is on Department property.

- Provided always that, in respect of any person/s employed by any Sub-Contractor, the contractor's obligation shall be satisfied if the Sub-Contractor shall have insured against the liability.
  - Insurance policies and renewals required in terms of this clause shall be produced to the Department of Water and Sanitation if required.
- 4. All injuries/incidents suffered by the Contractor /Sub-Contractor shall be reported to the Health and Safety Co-ordinator without delay.
- 5. All injuries/incidents shall be investigated on the prescribed form provided by the Department of Labour within the allotted time frame.
- The Contractor shall use its best endeavours to keep confidential and prevent disclosure
  of information known-how or data disclosed to the Contractor by or on behalf of the
  Department of Water and Sanitation in the course of or as a result of or in connection with
  the Contract.
- 7. Confidential information may be disclosed by the Contractor on a confidential basis only to employees, vendors and Sub-Contractors who require such information in the performance of their work in connection with the Contract.
- 8. The Contractor shall not use or permit to be used any confidential information in the performance of any work for persons other than those of the Department.

WE HEREBY AGREE TO ABIDE BY THE ABOVE RULES AND REGULATIONS.

NAME OF CONTRACTOR:	
SIGNATURE OF THE CONTRACTOR OWNER:	
SIGNATURE OF RESPONSIBLE PERSON:	
DATE:	

# ANNEXE D: CERTIFICATE OF COMPLIANCE

### **CERTIFICATE OF COMPLIANCE**

This certificate must be completed by a contractor on the premises of			rk to be done
1			
Have checked the equipment a performed.	and the ability of th	e Contractor in respe	ect of the work to be
I have checked:			
Description		Condition	Remark
First aid Kit			
Fire Fighting			
Lifting equipment			
Respiratory equipment			
Hot work permit			
Safety Harness			
Life Lines			
Lock-out			
Ladders			
Electrical equipment			
I Have received:			
Description		Yes/No	Remark
Signed indemnity form			
Names of responsible persons			
List of tools and equipment			
Certificates for lifting equipment			
I declare that the person in control hazards connected to this work a perform the required tasks.			
	DWS		Contractor
Signed			
Position			
Place			
Date			

### **ANNEXE E:**

# PROCUREMENT PROCEDURE

THE PROCUREMENT PROCEDURE WILL BE UPDATED FROM TIME TO TIME IN LINE WITH DWS DELEGATIONS, POLICIES, AND STRUCTURES. CHANGES TO THE PROCEDURES WILL BE COMMUNICATED WITH THE APPOINTED CONTRACTORS.



# MECHANICAL AND ELECTRICAL ASSET MANAGEMENT SUPPORT OF MAJOR PLANT AND MACHINERY FOR CENTRAL OPERATIONS BID DWS03 0621 WTE

### ANNEXURE E: PROPOSED PROCUREMENT PROCEDURE

### 1. PLANNED MAINTENANCE

This would be mechanical and electrical maintenance projects that are included in the annual bulk water infrastructure maintenance implementation plan. The vast majority of maintenance projects will reside in this category. This category will also include the Dam Safety Rehabilitation Programme (DSRP) Projects. The proposed procurement process:

- a. The engineering staff will compile and submit a Request for Quotation (RFQ) together with the technical description and scope of the maintenance work required (with BOQ/Pricing Schedule) to the appointed contractor.
- b. The contractor must ensure that the requirements stated in the RFQ are unambiguous and fully understood prior to preparing the detailed quotation. A site visit may be required in order for the contractor to prepare a realistic quotation. The following personnel must be present during the site visit:
  - The Area Office Engineering Staff and Safety Officer (if available),
  - Technical staff allocated to that Area Office (from Directorate: SAM) on an ad hoc basis,
  - The appointed contractor and Sub-Contractor (if required)

The site visit must contain minutes of the visit and an attendance register.

- c. The appointed contractor will submit a quotation and a comprehensive quality programme to the Area Office Engineering Staff and copies to the Technical Staff (from Directorate: SAM);
- d. The Area Office Engineering Staff will be checked and scrutinized the quotation for compliance to the maintenance term contract, the issued Request for Quotation (RFQ), the site visit discussions, the estimated project cost is market related and to ensure that the supporting documents are included by the Contractor.
- e. The Area office engineering staff must forward the recommended quotation to Directorate: SAM for approval after reviewed.
- f. A written approval to issue an official purchase order will be issued by the Engineer once D:SAM technical staff agrees with the contents of the recommended quotation and approved by Chief Director: Infrastructure Operations).
- g. No work shall commence if the contractor is not in possession of the following documents:
  - the official purchase order,
  - approved Quality Control Plans (QCPs),
  - approved design drawings (where applicable),
  - approved project/maintenance work schedule
  - Safety File (Accepted by the Area/Cluster office Safety Officer / Engineering Staff),
  - and a Departmental work permit (completed and signed by the Engineering Staff / Area Manager)

- h. The work on and off site shall be inspected by the Engineering Staff (including the Safety Officer) and Technical staff as per the holding points on the approved QCPs and in accordance with the requirements of the Occupational Health and Safety Act and Regulations.
- i. Testing, technical completion and commissioning certificates shall be completed and signed by the engineering staff, technical staff and/or the applicable Engineer, applicable Area Office Manager and the Director of the Cluster (where applicable).
  - a. The engineering staff will be responsible for processing payments once he/she and the technical support staff are satisfied with the maintenance work and the invoice reflects the work done and contains the required supporting documents for payment.

### PLANNED MAINTENANCE

	ACTIVITY	ESTIMATED DURATION	MODE OF	PROOF OF
1.	Area Office issue RFQ to Contractor	1 day	Email / fax of authorised RFQ with follow up phone call	COMMUNICATION  Contractor acknowledge receipt of RFQ by email or fax to sender of RFQ
2.	Site visit with Contractor	3 days	Meeting request via email.	Site visit minutes and attendance register.
3.	Contractor prepare and issue quotation	10 days	Submission of quotation signed by Contractor, submitted to Area Office and D: SAM	Detailed quote submitted by Contractor as per approved rates and DWS Quotation template (with proof of receipt)
4.	Area Office Engineering Staff and D:SAM Technical Staff check quotation for compliance	3 day	Email and telephone	Copy of email
5.	Engineer issue approval to issue PO after recommended by D: SAM and approved by Chief Director: Infrastructure Operations	3 day	Email and telephone	Copy of email and acknowledgement of receipt by Area Office.
6.	Area Office issue PO	7 days	Copy of Generated PO sent to Contractor via email / fax	Copy of email / fax report with acknowledgement of receipt by Contractor
	Total estimated duration	27 working days		

#### 2. UNPLANNED MAINTENANCE

This would be urgent mechanical and electrical maintenance projects that are not included in the annual bulk water infrastructure maintenance implementation plan. The proposed procurement process:

- a. The engineering staff will inform the Area / Cluster Manager, who will submit an urgent certificate (with motivation) to the Director: Strategic Asset Management and Chief Director: Infrastructure Operations to consider for approval.
- b. Once the maintenance work has been classified as an urgent maintenance work, approval will be granted to include the work in the annual bulk water infrastructure maintenance implementation plan with the required funds allocated. (This approval will be conducted as per delegation of the Accounting Officer).
- c. The engineering staff will compile and submit a Request for Quotation (RFQ) together with the technical description and scope of the maintenance work required (with BOQ/Pricing Schedule) to the appointed contractor.
- d. The contractor must ensure that the requirements stated in the RFQ are unambiguous and fully understood prior to preparing the detailed quotation. A site visit may be required in order for the contractor to prepare a realistic quotation. The following personnel must be present during the site visit:
  - The Area Office Engineering Staff and Safety Officer (if available),
  - Technical staff allocated to that Area Office (from Directorate: SAM) on an ad hoc basis,
  - The appointed contractor and Sub-Contractor (if required)

The site visit must contain minutes of the visit and an attendance register.

- e. The appointed contractor will submit a quotation and a comprehensive quality programme to the Area Office Engineering Staff and copies to the Technical Staff (from Directorate: SAM);
- f. The Area Office Engineering Staff will be checked and scrutinized the quotation for compliance to the maintenance term contract, the issued Request for Quotation (RFQ), the site visit discussions, the estimated project cost is market related and to ensure that the supporting documents are included by the Contractor.
- g. The Area office engineering staff must forward the recommended quotation to Directorate: SAM for approval after reviewed.
- h. A written approval to issue an official purchase order will be issued by the Engineer once D:SAM technical staff agrees with the contents of the recommended quotation and approved by Chief Director: Infrastructure Operations).
- i. No work shall commence if the contractor is not in possession of the following documents:
  - the official purchase order,
  - approved Quality Control Plans (QCPs),
  - approved design drawings (where applicable),
  - approved project/maintenance work schedule
  - Safety File (Accepted by the Area/Cluster office Safety Officer / Engineering Staff),
  - and a Departmental work permit (completed and signed by the Engineering Staff / Area Manager)

- j. The work on and off site shall be inspected by the Engineering Staff (including the Safety Officer) and Technical staff as per the holding points on the approved QCPs and in accordance with the requirements of the Occupational Health and Safety Act and Regulations.
- k. Testing, technical completion and commissioning certificates shall be completed and signed by the engineering staff, technical staff and/or the applicable Engineer, applicable Area Office Manager and the Director of the Cluster (where applicable).
- I. The engineering staff will be responsible for processing payments once he/she and the technical support staff are satisfied with the maintenance work and the invoice reflects the work done and contains the required supporting documents for payment.

### 3. EMERGENCY PROJECTS

This process will only apply when the work can be successfully motivated to the Director: Strategic Asset Management and Chief Director: Infrastructure Operations for consideration to be classified as Urgent or as an Emergency. This will include situations where the continued dysfunctional state of equipment/infrastructure will have a disastrous impact on the department's capability to supply water to its customers of strategic importance, i.e. ESKOM, SASOL, as well as supply for domestic use to municipalities, or the risk of life and substantial loss of infrastructure. If unsuccessful to have the situation classified as an emergency, the project will be dealt with as an unplanned maintenance project.

Section 19 of the National Water Act states that the person in control in law or the owner of the asset has to take the necessary action to respond to the emergencies and then inform the accounting officer of the actions that have been taken. It is with this in mind that the aDG has to delegate this function

The procurement procedure for Emergency maintenance projects is therefore proposed as follows:

- a. The engineering staff will inform the Area / Cluster Manager, who will submit an emergency certificate (with motivation) to the Director: Strategic Asset Management and Chief Director: Infrastructure Operations to consider for approval.
- b. Once the project has been classified as an Emergency, approval will be granted to approach the appointed contractor to attend to the urgent or emergency maintenance work as speedily as possible. (This approval will be conducted as per delegation of the Accounting Officer).
- c. The appointed contractor will be required to do the emergency maintenance work without being issued a purchase order.
- d. The contractor will be required to prepare a quotation for the emergency maintenance work done. Quotations submitted for emergency work, shall be clearly stated and a brief motivation provided why the work is considered to be an emergency.
- e. After the Area Office engineering staff and the SAM technical support staff agrees with the contents of the quotation a written approval to issue an official order will be issued by the Engineer (Recommended by Director: SAM or the Chief Engineer: Mechanical Maintenance, Chief Director: Infrastructure Operations and approved by the DDG: NWRI).
- f. The purchase order will be generated by the Area Office staff and invoices will be paid accordingly.
- g. The Completion Certificate will be issued once the relevant engineer approve of the work done and filed as portfolio of evidence.
- h. The emergency procurement will be tabled with DG within 7 working days.

# **EMERGENCY PROJECTS**

	ACTIVITY	ESTIMATED DURATION	MODE OF COMMUNICATION	PROOF OF COMMUNICATION
1.	Area Office contact Cluster Manager; Cluster Manager contact CD: IO and CD: SAM, compile emergency certificate to CD: IO and CD: SAM		Telephone call to Cluster Manager; Cluster Manager telephonically contact CD: IO and CD: SAM. Cluster Manager Email / fax the emergency certificate to CD: IO and CD: SAM.	Copy of SMS, email or fax report with acknowledgement SMS, email or fax from Cluster Manager, CD:IO and CD: SAM
2.	CD: IO and CD: SAM recommend emergency certificate for DDG: NWRI approval	1 day	Emergency certificate submitted for DDG: NWRI approval	Proof of receipt.
3.	Contractor requested to attend to site as soon as possible		Written communication (SMS Email / Fax) from Area Manager / Cluster Manager to Contractor	Copy of SMS, email or fax report with acknowledgement from the Contractor
4.	Area office engineering staff and Contractor attend to site		Written instruction from Area / Cluster Manager	Copy of SMS, email or fax report with acknowledgement from the Contractor and the Area Office Engineering staff
5.	Contractor prepare and issue quotation for actual work done	1 day	Submission of quotation signed by Contractor, submitted to Area Office and D: SAM	Detailed quote submitted by Contractor as per approved rates and DWS Quotation template (with proof of receipt)
6.	Area Office Engineering Staff and D:SAM Technical Staff check quotation for compliance	1 day	Email and telephone	Copy of email
7.	D: SAM or Chief Engineer: Mechanical Maintenance issue approval to issue PO	1 day	Email and telephone	Copy of email and acknowledgement of receipt by Area Office.
8.	Area Office issue PO	3 days	Copy of Generated PO sent to Contractor via email / fax	Copy of email / fax report with acknowledgement of receipt by Contractor
	Total estimated duration	7 working days		

### Note:

In the case of DSRP projects, the roles of the Area Office engineering staff, safety officers, Area Managers, Cluster Managers and the Chief Director: Infrastructure Operations as per the above listed processes will be replaced by the DSRP project team.

# T1.2 Tender Data

# T1.2.2 TECHNICAL SPECIFICATION AND REQUIREMENTS

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	1.2 MECHANICAL EQUIPMENT	
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1.	SCOPE OF WORK
	The following lists of equipment comprise those major items to be found, in all or in part, at the Departmental Schemes.
1.1	ELECTRICAL EQUIPMENT
	General electrical reticulation and lights.
	Induction and synchronous motors with sizes ranging from 1 kW up to 8MW, up to voltages of 11 kV.
	Low voltage switchgear 380 V.
	Generators (up to 500 kVA).
	Direct current supply units (50 V up to 110 V).
	Control panels for pump-sets, valves and dam control gates.
	Meters, general instrumentation and large controllers.
	Electrical circuits (Cranes, Gates, Valves etc.).
	Radio and telemetry equipment.
	Instruments and computer controlled equipment.  Electrical actuators.
	High Voltage switchgear (up to 33kV), High Voltage overhead lines and cables (up to
	33kV), High Voltage Motors (up to 8MW and up to 11kV), Protection systems,
	Transformers, Minisubs, High Voltage reticulation systems.
1.2	MECHANICAL EQUIPMENT
	Borehole-pumps at installations.
	Centrifugal pumps
	Packaged water treatment plant (cleaning cooling water for mechanical seals)
	Pipelines with diameters of up to 3 m in diameter.
	Pipe material: Steel, Pre-stressed Concrete, Asbestos Cement, Glass Reinforced Polyester, Plastic, PVC, Fibreglass and HDPE.
	Pipeline coatings. (bituguard, 3LPE, rigid polyurethane,).
	Pipeline linings (epoxy paints, and mortar).
	Valves to fit the relevant pipelines of up to 3 m.
	Types of Valves: Butterfly, needle, gate, reflux, ball, air, sleeve, body and float control valves, ring follower, jet flow, spherical, knife gate, weight assisted, air.
	Electrically, hydraulically and air operated actuators for operation of the valves
	Dam control gates: Emergency and Slab Gates.
	Maintenance gates, plugs. 2.2 m X 2.2 m X 5 Ton.
	Trash racks/screens (maximum 3 m x 4 m).
	Hydraulic equipment  Overhead travelling grapes, IIP, Contry and various lifting equipment of up to 63
	Overhead travelling cranes, JIB, Gantry and various lifting equipment of up to 63 tonnes.
	Cooling systems, Ventilation systems, pressure vessels/plant, pumps of various
	sizes, workshop equipment, actuators
1.3	GENERAL
	Water flow meters (ultrasonic, magnetic, differential pressure, propeller) for pipes up to 2.5 m diameter.
	Small and medium water purification systems for site personnel supply purposes.
	Small sewerage plants for site personnel purposes.

ACTIVITIES TO BE PERFORMED:
Using proven experience and ability the Contractor shall be able to evaluate malfunction, diagnose failure, repair, refurbish, upgrade, test, commissioning and provide skilled maintenance of the following plant equipment:
Cranes, as well as supply and load testing facilities of up to 75 tonnes, including the issue of appropriate certificates.
Compressors: Reciprocating, single/multistage centrifugal and lobe compressor units (up to 8 m³/min).
Switchgear: All types of switchgear, up to and including 11 kV (vacuum and air-blast installations including pneumatic hydraulic or spring devices).
Switchgear protection equipment.
Transformers: Up to 10 MVA.
Valves: Total refurbishment of all types of valves, up to 3 m diameter.
Dam equipment/structures: Sluice gates, stop logs, screens, hydraulic equipment, etc.
All types of pipelines with diameters up to 3,5 m: e.g. steel pipes, stainless steel PVC, etc.
Electric actuators for up to 3 m diameter valves.
Electric motors: Up to 8MW
Diesel and petrol driven Gensets up to 500 kVA.
Internals of centrifugal pumps: Up to 4000 l/s and 100 m head.
Small and medium water purification plants/systems.
Small sewerage plants/systems.
Electricity distribution systems for offices, personnel housing and all other relevant
equipment.
Electrified security fencing.
Such equipment as may be specified from time to time by the Employer's Agent Rep.
Competence in providing the following Engineering Services:
Competence in providing the following Engineering Convices.
Efficiency tests on up to 4000 kW pump-sets by utilising thermo dynamic testing method with the issue of appropriate test reports.
Endoscope inspections on pump/valve/pipeline internals with the issue of appropriate test reports.
Rebuilding of pumps to an alternative specification.
Machining facilities: Light, medium and heavy machining facilities, fabrication and on site in-situ machining.
Corrosion protection coatings as specified by the Department of Water and Sanitation. (Blasting & Coating).
Water flow meter and pressure/temperature transducer testing and calibration services and general instrumentation.
Mechanical, electrical and technical investigation expertise.
Mechanical manufacturing in accordance with drawings of the Department of Water and Sanitation of small as well as large structures such as sluice gates.
Reverse mechanical engineering techniques.
Oil testing and purification facilities. (Karl Fischer tests included).
Preventative maintenance and testing including Tan Delta tests on electrical motors up to 11kV, 8MW
Underground cable fault location and repair

	Radio and telemetry equipment.
	Instruments and computer controlled equipment
	Such engineering services as the Engineer may specify from time to time.
	Contractor may be required to appoint and supervise diving contractors, only when
	there is no DWS diving operations term contract in place.
	Competence in providing the following services:
	Project Management.
	Preventative maintenance plans on large installations with regard to auxiliary and
	main equipment.
	Liaison with original equipment manufacturers.
	Implementation of statutory safety standards.
	Working procedures on all relevant equipment
	Power consumption versus flow calculations
	Value/cost analysis.
	Material testing/identification capabilities and facilities.
	Safety: All maintenance services must comply with the Occupational and Health
	Safety Act 85 of 1993.
	Quality: Procedures for services and products must have at the least an ISO 9002
	quality listing.
	Test Reports: Test reports shall be provided on all tests performed or as requested
	by the Employer's Agent or his Representative.
	Existing Documents: The Department will furnish the necessary documents with
	regard to the form of reports, such as technical details, components, test results,
	items replaced and comments where possible.
	New Documents: Prospective Bidders should have the capabilities however of
	drafting report documents/forms where no official documents currently exist including
	full Operating and Maintenance Manuals.
	General.
	Provision of heavy vehicle transport service repair and maintenance facilities.
	Emergency breakdown service.
	Provision of contractual supervision services.
	Treviolen er contractaar caperviolen cervicee.
3	ELECTRICAL REQUIREMENTS
3.1	General requirements
3.1.1	This Specification describes the usual materials required for the maintenance of
0.1.1	electrical installations and general methods of installing these materials.
	Clockfool motaliations and general methods of metalling those materials.
3.2	STATUTORY REQUIREMENTS
0.2	OTATOTORT REGULETIO
3.2.1	The maintenance and installation of electrical equipment shall always comply with
0.2.1	the requirements, stipulations and regulations contained in the following Acts:
3.2.2	Occupational Health and Safety Act 85 of 1993 (Act & Regulations), General
0.2.2	Administrative Regulations, Electrical Installation Regulations, Driven Machinery
	Regulations Machinery Installations, General Machinery Regulations, General Safety
	Regulations.
3.2.2.2	The Electricity Act, No. 40 of 1958.
3.2.2.3	Code of Practice for the Wiring of Premises - SANS 10142.
J.Z.Z.J	Odde of Fractice for the willing of Fremises - OANO 10142.
	1

4	VALVES
	All valves to be supplied, repaired or refurbished under this contract shall be in accordance with DWS 2510. It is the responsibility of the Contractor to assure that the supplier / subcontractor is in possession of the necessary documentation in order to render the required service in accordance with the specification.
5	CORROSION PROTECTION
5.1	The contractor shall be responsible for ensuring that he is fully conversant with the requirements of the standard corrosion protection specification DWS 9900 and the relevant coating systems.  All equipment to be repaired or refurbished shall be coated in accordance with the above specification.
6	QUALITY CONTROL
6.1	The contractor or approved sub-contractor shall adhere to the departmental specification DWS 2020.
6.2	The contractor's quality management system shall be in accordance with SANS ISO 9001: 2000.
6.3	The contractor shall implement a comprehensive quality control programme and accept full responsibility for the quality of his workmanship and material used, irrespective of any quality surveillance that may be carried out by the engineer or his appointed representative.
6.4	In keeping with the principles contained in the above-mentioned code of practice, the contractor or any nominated and approved sub-contractor(s) shall -
(a)	be responsible for compliance with all the clauses of this specification in every respect;
(b)	carry out all inspections and tests called for in the specification in the presence of the Employer's Agent or his appointed representative. The cost of these inspections and tests shall be included in the price; and
(c)	draft a quality control plan for manufacture and compliance with the Departmental quality plan for corrosion protection of all components indicating all the intended stages of testing during manufacture, cleaning, preparation and application as well as hold points for independent quality surveillance.
6.5	The quality control plans will not be compromised once in agreement and shall be adhered to at all times.
7	WORKSHOP ASSEMBLY
7.1	To minimise actual on-site time and to assist in the erection and installation activities to be performed on site, all components, equipment and sub-assemblies shall be assembled at the contractor's workshop.
7.2	Individual components, units etc. of which the prior installation / assembly is not feasible or advisable, shall be clearly marked in such a manner that the actual installation / assembly thereof on site can be completed in the minimum time with a minimum of fitting and adjusting required.
7.3	Equipment should be delivered to site in the largest sub-assemblies that are practical and advisable.  For the purpose of performing factory tests as required in terms of this Specification and where considered practical according to the discretion of the Employer's Agent's Representative, complete assemblies will be required.

8	OVERHEAD COSTS	
8.1	All day-to-day norm overheads.	nal administration work shall be considered as company
8.2	Monthly coordinating overhead costs.	meetings that shall be arranged are ALSO considered as
8.3	These costs including	g labour, travelling time, overtime, vehicle costs, subsistence nd etc, to attend such meetings.
8.4		t make provision to include such monthly costs in his/her
8.5	DWS shall NOT cons	ider any quotations/billing/invoicing associated with travelling to tend such crucial monthly meetings.
8.6	DWS further undertal	kes to as far as practically possible, to make use of a suitable within the boundaries of the Province/Region the contractor is
9	STANDARDS	
9.1	Unless otherwise spe	cified all materials must comply with SANS specifications.
9.2		le standards specifications for work carried out in accordance
	with this specification	
	DWS 1601 :	Standard specification for General Mechanical Specification
	DWS 1602 :	Standard specification for Preparation of mechanical and electrical engineering drawings
	DWS 2510 :	Standard specification for the supply of valves
	DWS 9900 :	Standard specification for Corrosion Protection
	DWS 2020 :	Standard specification for Quality Control
	SANS 10142 :	All Electrical Specifications plus DWS Specifications
	SANS 10142-2:	Medium Voltage equipment
	SANS 10064 :	Preparation of steel surfaces for coatings.
	SANS 150 :	PVC-insulated cables.
	SANS 152 :	Triple-pole on-load isolators.
	SANS 156 :	Magnetic circuit breakers.
	SANS 177 :	HV Insulators (Class B).
	SANS 178 :	HV Non-Current Carrying Accessories.
	SANS 182 :	Conductors for Overhead Electrical Transmission Lines
	SANS 221 :	Steel cross-arms.
	SANS 555 :	Transformer oil.
	SANS 121 :	Hot-dip Galvanising.
	SANS 767 :	Earth leakage Relays.
	SANS 780 :	Transformers.
	SANS 784, 1195	: Solid drawn high conductivity copper.
	SANS 808 :	Glands for PVC-insulated cables.
	SANS 890, 891	: Ballast's for tubular fluorescent lamp luminaries.
	SANS 1041 :	Fluorescent lamps.
	SANS 1091 :	National colour standards for paints.
	SANS 1119 :	Tubular fluorescent lamp luminaries.
	SANS 1130 :	Glass fibre-reinforcing material for pipe wrapping.
	SANS 1136 :	Cold-applied bitumen primer for steel pipeline protection.
	SANS 1137 :	Hot applied bitumen for steel pipeline protection.
	SANS 1178 :	The production of lined and coated steel pipes using bitumen

ar and tar
or coal tar enamel.
SANS 1180 : Flush mounted distribution boards.
SANS 1217 : The production of painted and powder coated steel pipes.
SANS 1250 : Capacitors for tubular fluorescent lamp luminaries.
SANS 1274 : Coatings applied by the Powder-coating process.
SANS 1344 : Medium duty solvent detergent.
SANS 5770 : Cleanliness of blast-cleaned steel surfaces for painting
(freedom of soluble salts).
SANS 5772 : profile blast –cleaned steel surfaces for painting (profile gauge)
SANS 5769 : cleanliness of blast cleaned steel surfaces for painting (freedom from dust and debris).
SANS ISO 1461 : Hot dip galvanised coatings on fabricated iron and steel
articles.
SANS ISO 2063 : Metallic and other inorganic coatings – thermal
spaying.
SANS ISO 2808 : Determination of film thickness.
SANS ISO 8501-1 : Preparation of steel substrates before application of
paints and related
Products - Visual assessment of surface cleanliness - Part 1 Rust grades and
preparation grades of steel substrates after overall removal of previous coatings.
SANS ISO 8504-2 : Preparation of steel substrates before
application of paints and related
Products – Surface preparation methods – Part 2 Abrasive blast cleaning.
SANS ISO 8503 : preparation of steel substrates before
application of paints and related
products – Surface roughness characteristics of blast cleaned steel substrates.
SANS ISO 14713 : protection against corrosion of iron and steel in
structures – guidelines.
ISO 752 : Zinc ingots.
BS 37 : kWh meters.
BS 89 : Indicating instruments.
BS 5493 : Protective coating for steel structures against
corrosion.
BS 3938
IEC 185 : Current transformers.
IEC 51 : Running hour meters.
IEC 99-1 : Surge Arrestors.
EN 1179 : Zinc and Zinc alloy – primary zinc.
API1104 : Welding of Pipelines and Related Facilities
<u> </u>
Where no applicable SANS Specification exists all materials must comply with the
equivalent DIN, IEC, IP or BSS specifications or be of the quality as specified.

### T2.1 List of Returnable Documents

### 1. FORMS OF BID

SBD1	INVITATION TO BID, HEAD OFFICE ADDRESS
SBD 3.2	PRICING SCHEDULE – NON FIRM PRICES
SBD 4	DECLARATION OF INTEREST
SBD 6.1	PREFERENCE POINTS CLAIM FORM: GENERAL CONDITIONS AND DEFINITIONS
SBD 6.2	DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS
SBD 8	DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES
SBD 9	CERTIFICATE OF INDEPENDENT BID DETERMINATION
ANNEXURE	7 INSTRUCTIONS TO BIDDERS: PURCHASES

GOVERNMENT PROCUREMENT: GENERAL CONDITIONS OF CONTRACT

# 2. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

The tenderer must complete the following returnable schedules as relevant:

- a) Record of Addenda to Tender Documents
- b) Proposed amendments and qualifications
- c) Compulsory Declaration
- d) Certificate of Authority for Joint Ventures, if applicable
- e) Preferencing Schedule: Broad Based Black Economic Empowerment Status
- f) Annual Financial Statements Declaration
- g) Annexure 1: Schedule of Similar Work Undertaken By Bidder
- h) Annexure 2: Schedule of Proposed Sub-Contractors
- i) Annexure 3: Schedule of Qualifications/Experience of Key Project Team Members
- j) Agreement in Terms of Section 37(2) of the Occupational Health and Safety Act, No 85 of 1993

SBD1



# PART A INVITATION TO BID

YOU ARE HEREI	BY INVITED TO BID FOR	REQUIREM	ENTS	OF THE DE	PARTME	NT OF	water an	ID SAN	ITATION	
BID NUMBER:	DWS03 0621WTE	CLOSING			06 AUGU			OSING		11:00
DESCRIPTION	THREE YEAR TERM C									
	INSTALLATION, MAIN									OPERATIONS
THE SHOOTSOF	(FREE STATE, GAUTE									
	<mark>UL BIDDER WILL BE RE</mark> DOCUMENTS MAY BE I				N A WKII	IEN CC	JNIKACII	-ORIVI (	2RD1).	
	TREET ADDRESS)	JEFOSITED	IN IIIE							
157 FRANCISBA	ARD STREET									
ZWAMADAKA B	UILDING									
PRETORIA										
0001										
SUPPLIER INFO	RMATION									
NAME OF BIDDE	R									
POSTAL ADDRE	SS									
STREET ADDRE	SS			T		ı				
TELEPHONE NU	MBER	CODE					NUMBER			
CELLPHONE NU	MBER			T		Ţ				
FACSIMILE NUM	BER	CODE					NUMBER			
E-MAIL ADDRES	S									
VAT REGISTRAT	ION NUMBER									
				T			T			
		TCS PIN:				OR	CSD No:			
B-BBEE STATUS VERIFICATION C		Yes					E STATUS . SWORN		] Yes	
[TICK APPLICAB		☐ No				AFFID			] No	
IF YES, WHO WA	S THE CERTIFICATE									
							AS CON	TEMPL	ATED IN	THE CLOSE
AN ACCOUNTING				CORPORATION ACT (CCA)						
CORPORATION A	O IN THE CLOSE ACT (CCA) AND NAME	A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAL ACCREDITATION SYSTEM (SANAS)					JIH AFRICAN			
THE APPLICABLE IN THE TICK BOX		A REGISTERED AUDITOR								
			NAM	E:						
	TATUS LEVEL VER							R EME	s& QSE	s) MUST BE
	J. JER 13 GOREN 1		_, \_, \	J J	J . J . L		7			

1. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐Yes ☐No  [IF YES ENCLOSE PROOF]	2. ARE YOU FOREIGN BA SUPPLIER FO GOODS /SER /WORKS OFF	SED OR THE EVICES	☐Yes [IF YES ANSWE PART B:3 BELO	
3. SIGNATURE OF BIDDER		4. DATE			
5. CAPACITY UNDER WHICH THIS BID IS SIGNED (Attach proof of authority to sign this bid; e.g. resolution of directors, etc.)					
6. TOTAL NUMBER OF ITEMS Offered		7. TOTAL E (ALL INCLUS	BID PRICE IVE)		
BIDDING PROCEDURE ENQUIRIES MAY	BE DIRECTED TO:	TECHNICAL INFORMA	ATION MAY	BE DIRECTED TO	<b>D</b> :
DEPARTMENT/ PUBLIC ENTITY	Bid Office	CONTACT PERSON		Mr T Ngati	
CONTACT PERSON	012 336 7596/6544/7780/ 6562	TELEPHONE NUMBER	2	012 336 8623	
TELEPHONE NUMBER	N/A	FACSIMILE NUMBER			
FACSIMILE NUMBER	bidenquirieswte@dws.gov.za	E-MAIL ADDRESS		ngatit@dws.gov.za	<u>a</u>
E-MAIL ADDRESS	Bid Office				

# PART B TERMS AND CONDITIONS FOR BIDDING

### 1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR ONLINE
- 1.3. BIDDERS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.
- 1.4. WHERE A BIDDER IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY NOT BE SUBMITTED WITH THE BID DOCUMENTATION. B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.
- 1.5. 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 LEGISLATION OR SPECIAL CONDITIONS OF CONTRACT.

### 2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE PROOF OF TCS / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A

	CSD NUMBER MUST BE PROVIDED.	
3.	QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS	
3.1.	IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO
3.2.	DOES THE BIDDER HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO
3.3.	DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO
3.4.	DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO
STA	HE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN, IT IS NOT A REQUIREMENT TO OBTAIN TUS / TAX COMPLIANCE SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVIC ISTER AS PER 2.3 ABOVE.	

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

# PRICING SCHEDULE – NON-FIRM PRICES (PURCHASES)

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

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

Nan	ne of Bidder	Bid number			
Clos	sing Time 11:00	Closing date			
	OFFER TO BE VALID FOR120DAYS FROM THE	CLOSING DATE OF BID.			
ITEM NO.	QUANTITY DESCRIPTION	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLUDED)			
1	- THREE YEAR TERM CONTRACT FOR MECHANICAL AND OTHER RELATED MAJOR PLANT AND MACHINERY INSTALLATION MAINTENANCE, REPAIR, REFURBISHMENT AND UPGRADE FOR CENTRAL OPERATIONS (FREE STATE, GAUTENG, KWAZULU-NATAL MPUMALANGA, AND NORTHERN CAPE)	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			
	** "all applicable taxes" includes value- added tax, pay	as you earn, income tax, unemployment			

insurance fund contributions and skills development levies.

<sup>\*</sup>Delete if not applicable

### **PRICE ADJUSTMENTS**

### A NON-FIRM PRICES SUBJECT TO ESCALATION

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

		Pa =	$+(1-V)Pt\left(D1\frac{R1t}{R1o}+D2\frac{R2t}{R2o}+D3\frac{R3t}{R3o}+D3$	$D4\frac{R4t}{R4o}$ + $VPt$
	Where:			
	Pa (1-V)Pt	=	The new escalated price to be calculated. 85% of the original bid price. <b>Note that Pt price and not an escalated price.</b>	must always be the original bid
	D1, D2	=	Each factor of the bid price eg. labour, trans total of the various factors D1, D2etc. mu	
	R1t, R2t	. =	Index figure obtained from new index (deused).	epends on the number of factors
	R1o, R2o VPt	=	Index figure at time of bidding.  15% of the original bid price. This portion is not subject to any price escalations.	of the bid price remains firm i.e. it
3.	The follow	ring index/ind	lices must be used to calculate your bid price	:
	Index	Dated	Index Dated In	dex Dated
	Index	Dated	Index Dated Index	Dated
4.			OWN OF YOUR PRICE IN TERMS OF ABOV OUS FACTORS MUST ADD UP TO 100%.	E-MENTIONED FORMULA. THE
		(	FACTOR D1, D2 etc. eg. Labour, transport etc.)	PERCENTAGE OF BID PRICE

### B PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

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

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

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

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

### **DECLARATION OF INTEREST**

- 1. Any legal person, including persons employed by the state<sup>1</sup>, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-
  - the bidder is employed by the state; and/or
  - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2.	In order t	to give	effect to	the	above,	the	following	questionnaire	must l	be comple	eted a	ınd
	submitted	with th	e bid.									

2.1	Full Name of bidder or his or her representative:
2.2	Identity Number:
2.3	Position occupied in the Company (director, trustee, shareholder²):
2.4	Company Registration Number:
2.5	Tax Reference Number:
2.6	VAT Registration Number:

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

1"State" means -

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

<sup>&</sup>lt;sup>2</sup>"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

2.7	presently employed by the state?	YES / NO
2.7.1	If so, furnish the following particulars:	
	Name of person / director / trustee / shareholder/ member: Name of state institution at which you or the person connected to the bidder is employed : Position occupied in the state institution:	
	Any other particulars:	
2.7.2	If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?	YES / NO
2.7.2.1	If yes, did you attached proof of such authority to the bid document?	YES / NO
	(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.	
2.7.2.2	If no, furnish reasons for non-submission of such proof:	
2.8	Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?	YES / NO
2.8.1	If so, furnish particulars:	
2.9	Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	YES / NO
2.9.1lf s	so, furnish particulars.	

2.10	Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?	YES/NO
2.10.	1 If so, furnish particulars.	
2.11	Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract?	YES/NO
2.11.	1 If so, furnish particulars:	
		•
		•
		•

Full details of directors / trustees / members / shareholders.

2.10

3

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

# 4 DECLARATION

I, THE UNDERSIGNED (NAME)	
I ACCEPT THAT THE STATE	ON FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT. MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF RAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION
Signature	Date
Position	Name of bidder

May 2011

# 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 PROCUREMENTREGULATIONS, 2017.

### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2

- a) The value of this bid is estimated to exceed R50 000 000 (all applicable taxes included) and therefore the...90/10..... preference point system shall be applicable; or
- b) 90/10 preference point system will be applicable to this tender.
- 1.3 Points for this bid shall be awarded for:
  - (a) Price; and
  - (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this bid are allocated as follows:

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

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

### 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;
  - 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 atthe 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:

80/20 or 90/10

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right)$$
 or  $Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$ 

Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration

Pmin = 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.	R	ID	n	F	$\sim$ 1	Λ	D	Λ	TI	0	N	J
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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 statu
	level of contributor.

#### 7. **SUB-CONTRACTING**

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

(Tick applicable box)

YES	NO	

_	4	- 4							
7.	1	1	Iŧ.	ves.	ır	าฟ	10	3	to.
		- 1		VED.	ш	IL J	ш	'n	12

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

(Tick applicable box) YES NO

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

Designated Group: An EME or QSE which is at last 51% owned by:	EME $\sqrt{}$	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
	<ul> <li>□ Partnership/Joint Venture / Consortium</li> <li>□ One person business/sole propriety</li> <li>□ Close corporation</li> <li>□ Company</li> <li>□ (Pty) Limited</li> <li>[TICK APPLICABLE BOX]</li> </ul>
8.5	DESCRIBE PRINCIPAL BUSINESS ACTIVITIES
8.6	COMPANY CLASSIFICATION
	<ul> <li>Manufacturer</li> <li>Supplier</li> <li>Professional service provider</li> <li>Other service providers, e.g. transporter, etc.</li> <li>[TICK APPLICABLE BOX]</li> </ul>
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 paragraphs1.4 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	l l	GNATURE(S) OF BIDDERS(S)
2	DATE:	
	ADDRESS	

### DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?  (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the audi alteram partem rule was applied).  The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes	No
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?  The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes	No
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes	No

4.4.1	If so, furnish particulars:		
			SBD 8
	CERTIFI	ICATION	
CEI	HE UNDERSIGNED (FULL NAME) RTIFY THAT THE INFORMATION FUR TRUE AND CORRECT.		
MA	CCEPT THAT, IN ADDITION TO CAN Y BE TAKEN AGAINST ME SHOUL SE.	·	
 Sign	nature	Date	
 Posi	tion	Name of Bidder	Js365bW

### CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids<sup>1</sup> invited.
- Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
  - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
  - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bidrigging.
- In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

<sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.

<sup>&</sup>lt;sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

### CERTIFICATE OF INDEPENDENT BID DETERMINATION

i, the undersigned, in submitting the accompanying bid:	
(Bid Number and Description)	
in response to the invitation for the bid made by:	
(Name of Institution)	
do hereby make the following statements that I certify to be true and complete in every res	spect
I certify, on behalf of:th	hat:
(Name of Bidder)	

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation;
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

- 6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices;
  - (b) geographical area where product or service will be rendered (market allocation)
  - (c) methods, factors or formulas used to calculate prices;
  - (d) the intention or decision to submit or not to submit, a bid;
  - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
  - (f) bidding with the intention not to win the bid.
- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

<sup>&</sup>lt;sup>3</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.

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

Signature	Date	
Position	Name of Bidder	

Js914w 2

#### **DEPARTMENT OF WATER AND SANITATION**

#### **INSTRUCTIONS TO BIDDERS: PURCHASES**

- The standard bidding forms should not be retyped or redrafted but photocopies may be prepared and used. Additional offers may be made of any item but only on a photocopy of the page in question or on other forms obtainable from the Head of Procurement: Department of Water and Sanitation, Private Bag X313, Pretoria, 0001, Attention: Supply Chain Management Office. Additional offers made in any other manner may be disregarded.
- 2. Should standard bid forms not be filled in by means of mechanical devices, for example typewriters, ink, preferably black, must be used to fill in bids.
- 3. Bidders shall check the numbers of the pages and satisfy themselves that none are missing or duplicated. No liability shall be accepted in regard to claims arising from the fact that pages are missing or duplicated.
- 4. Where items are specified in detail, the specifications form an integral part of the bid document and bidders shall indicate in the space provided whether the items offered are to specification or not.
- 5. In respect of the paragraphs where the items offered are strictly to specification, bidders shall insert the words "as specified".
- 6. In cases where the items are not to specification, the deviations from the specifications shall be indicated.
- 7. The bid prices shall be given in the units shown.
- 8. With the exception of basic prices, where required, all prices shall be quoted in South African currency.
- 9. Delivery basis:
  - (a) Supplies which are held in stock or are in transit or on order from South African manufacturers at the date of bid, shall be offered on a basis of delivery into consignee's store or on his site within the free delivery area of the bidder's centre, or carriage paid consignee's station if the goods are required elsewhere.
  - (b) Notwithstanding the provisions of paragraph 9(a), bid prices for supplies in respect of which installation/erection/assembly is a requirement, shall include ALL costs on a basis of delivered on site as specified.
- 10. Unless specifically provided for in the bid document, no bids transmitted by telegram, telex, facsimile, email or similar apparatus shall be considered.

2/...

- 11. Bids received after the closing date and time are late and will as a rule not be accepted for consideration.
- 12. Bids will be opened in public, that is, bidders or their representatives may be present. If requested by any bidder, the names of bidders and if practical the total amount of each bid and of any alternative bids, will be read aloud.
- 13. The period for which offers are to remain valid and binding is indicated in the bid documents and is calculated from the closing date on the understanding that offers are to remain in force and binding until the close of business on the last day of the period calculated and if this day falls on a Saturday, Sunday or public holiday, the bid is to remain valid and binding until the close of business on the following working day.
- 14. These conditions (Annexure 7) form part of the bid and failure to comply therewith may invalidate a bid.
- 15. Bidders are requested to promote local content optimally. Bidders who use locally manufactured components, products, equipment and systems, may claim preferences as set out in the Preference Points Claim Form, if attached.
- 16. After public opening of bids, information relating to the examination, clarification and evaluation of bids and recommendations concerning awards will not be disclosed to bidders or other persons not officially concerned with the process, until the successful bidder is notified of the award. The bid documentation of bidders is considered to be confidential and will under no circumstances be made available to other bidders or other persons.
- 17. If you are a supplier but not the actual manufacturer and will be sourcing the product(s) from another company, a letter from that company(ies)/supplier(s) confirming firm supply arrangement(s) in this regard, has to accompany your bid and failure to submit the document may invalidate your bid.
- 17.1 The said company/supplier must confirm that it has familiarised itself with the item description, specifications and bid conditions and if the bid consist of more than one item it should be clearly indicated in respect of which item(s) the supportive letter has been issued.
- 18. The financial standing of bidders and their ability to manufacture or to supply goods or to render a service may be examined before their bids are considered for acceptance.
- 19. The Department may, where a bid relates to more than one item, accept such bid in respect of any specific item or items and also accept part of the specified quantity of any specific item or items.
- 20. The Department is not obliged to accept any bid. The evaluation of a bid will be done in accordance with the Preferential Procurement Policy Framework Act, 2000 (Act no. 5 of 2000) and its regulations.

3/...

# **ANNEXURE 7**

- 21. After approval of the bid, both parties must sign a written contract. The Contract Form must be filled in duplicate by both the successful bidder and the purchaser. Both Contract Forms must be signed in the original so that the successful bidder and the purchaser would be in possession of originally signed contracts for their respective records.
- 21.1 Failure of the successful bidder to sign the Contract Form in ink may result in the invalidation of their bid.

Special Conditions of Bid: Purchases

July 2004

# GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT July 2010

# **Record of Addenda to tender documents**

	Date	Title or Details
).		
tach	additional pages if m	re space is required.
	Signed	Date
	Name	Position

# Proposed amendments and qualifications

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed	Date	
Name	Position	
Tenderer		

# **Compulsory Declaration**

each partner must be completed and submitted.					
Section 1: Enterprise Details					
Name of enterprise:					
Contact person:					
Email:					
Telephone:					
Cell no					
Fax:					
Physical address					
Postal address					
Section 2: Particulars of compar	nies and close corporations				
Company / Close Corporation re	gistration number				
Section 3: SARS Information					
Tax reference number					
VAT registration number:  State Not Registered if not registered for VAT					
Section 4: CIDB registration number					
CIDB Registration number (if applicable)					
Section 5: National Treasury Cent	ral Supplier Database				
Supplier number	Supplier number				
Unique registration reference number					
Section 6: Particulars of principals	3				
principal: means a natural person who in terms of the Companies Act of 2008 (Close Corporation Act, 1984, (Act No. 69)	Act No. 71 of 2008) or a member of a cl	ietor, a director of a company established ose corporation registered in terms of the			
Full name of principal	Identity number	Personal tax reference number			
Attach separate page if necessary					

# Section 7: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any principal is currently or has been within the last 12 months in the service of any of the following:

<ul><li>a member of any municipal co</li><li>a member of any provincial leg</li></ul>	public entity or constitutional	institution	within the
□ a member of the National At the National Council of Province	meaning of the Public Finance ssembly or 1999 (Act No. 1 of 1999)	e Manage	ment Act of
a member of the board of cany municipal entity	a member of an accounting a	uthority of	any national
	an employee of Parliament or a cipality or	a provincial	legislature
If any of the above boxes are mar	ked, disclose the following:		
Name of principal	Name of institution, public office, board or organ	Status of	service
	of state and position held	(tick appi	opriate column)
		Current	Within last 12 months
insert separate page if necessary			
Section 8: Record of family men	nber in the service of the state		
Indicate by marking the relevant bo	prother, sister, whether such a relationship results from xes with a cross, if any family member of a prin	icipal as de	
5 is currently or has been within the	last 12 months been in the service of any of the	_	
a member of any municipal co	municipal mulding autitus and		
<ul><li>a member of any provincial leg</li><li>a member of the National As</li></ul>	within the meaning of ssembly or Management Act, 1999 (Act 1	the Publ	
the National Council of Province  a member of the board of co	ce □ a member of an accounting a	-	any national
any municipal entity  an official of any munic	□ an employee of Parliament or a	a provincial	legislature
municipal entity			
Name of family member	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months
*insert separate page if necessary			
Section 9: Record of termination	of previous contracts with an organ of state		
-	lering entity including any of its joint venture part n the employer no longer requiring such works		-
make payment in terms of the contr	act.		
☐ Yes ☐ No (Tick appropria			
If yes, provide particulars (interest se	parate page if necessary)		
Section 10: Declaration			

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

confirms that the contents of this Declaration are within my personal knowledge, and save where stated otherwise in an attachment hereto, are to the best of my belief both true and correct, and:

- i) neither the name of the tendering entity or any of its principals appears on:
  - a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004 (Act No. 12 of 2004)
  - b) National Treasury's Database of Restricted Suppliers (see www.treasury.gov.za)
- ii) neither the tendering entity of any of its principals has within the last five years been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa);
- iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration);
- iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers
- v) has not engaged in any prohibited restrictive horizontal practices including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of contract etc) or intention to not win a tender;
- vi) has no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- vii) neither the tenderer or any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity and are not in arrears for more than 3 months;
- viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into in excess of the threshold prescribed by the National Treasury, for SARS to do likewise.

Signed		
	 Date	
Name	Position	
Enterprise name		

NOTE 1 The Standard Conditions of Tender contained in SANS 10845-3 prohibits anticompetitive practices (clause 3.1) and requires that tenderers avoid conflicts of interest, only submit a tender offer if the tenderer or any of his principals is not under any restriction to do business with employer (4.1.1) and submit only one tender either as a single tendering entity or as a member in a joint venture (clause 4.13.1). Clause 5.7 also empowers the Employer to disqualify any tenderer who engages in fraudulent and corrupt practice. Clause 3.1 also requires tenderers to comply with all legal obligations.

NOTE 2: Section 30(1) of the Public Service Act, 1994, prohibits an employee (person who is employed in posts on the establishment of departments) from performing or engaging remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department. When in operation, Section 8(2) of the Public Administration Management Act, 2014, will prohibit an employee of the public administration (i.e. organs of state and all national departments, national government components listed in Part A of Schedule 3 to the Public Service Act, provincial departments including the office of the premier listed in Schedule 1 of the Public Service Act and provincial departments listed in schedule 2 of the Public Service Act, and provincial government components listed in Part B of schedule 3 of the Public Service Act) or persons contracted to executive authorities in accordance with the provisions of section 12A of the Public Service Act of 1994 or persons performing similar functions in organs of state from conducting business with the State or to be a director of a public or private company conducting business with the State. The offence for doing so is a fine or imprisonment for a period not exceeding 5 years or both. It is also a serious misconduct which may result in the termination of employment by the employer.

NOTE 3: Regulation 44 of Supply Chain Management regulations issued in terms of the Municipal Finance Management Act of 2003 requires that organs of state and municipal entities not award a contract to a person who is the service of the state, a director, manager or principal shareholder in the service of the state or who has been in the service of the state in the previous twelve months.

NOTE: 4: Regulation 45 of Supply Chain Management regulations requires a municipality or municipal entity to disclose in the notes to the annual statements particulars of any award made to a close family member in the service of the state.

NOTE: 5 Corrupt activities which give rise to an offence in terms of the Prevention and Combating of Corrupt Activities Act of 2004) include improperly influencing in any way the procurement of any contract, the fixing of the price, consideration or other moneys stipulated or otherwise provided for in any contract and the manipulating by any means of the award of a tender.

NOTE: 6 Section 4 of the Competition Act of 1998 prohibits restrictive horizontal practice including agreements between parties in a horizontal relationship which have the effect of substantially preventing or lessening competition, directly or indirectly fixing prices or dividing markets or constitute collusive tendering. Section 5 also prohibits restrictive vertical practices. Any restrictive practices that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties.

# Preferencing schedule: Broad Based Black Economic Empowerment Status

#### **Preamble**

Section 10(b) of the Broad-Based Black Economic Empowerment Act of 2003 (Act No. 53 of 2003) states that "Every organ of state and public entity must take into account and. as far as is reasonably possible. apply any relevant code of good practice issued in terms of this Act in developing and implementing a preferential procurement policy:"

A number of codes of good practice have been issued in terms of Section 9(1) of the B-BBEE Act of 2003 including a generic code of good practice and various sector codes. The sector codes vary the metrics, weightings and targets used in the generic code of good practice to establish the overall performance of an entity and its B-BBBEE status. The B-BBEE status needs to be assessed in accordance with the applicable code.

#### 1 Conditions associated with the granting of preferences

Tenderers who claim a preference shall provide sufficient evidence of their B-BBEE Status in accordance with the requirements of section 2 in respect of the applicable code as at the closing time for submissions, failing which their claims for preferences will be rejected.

### 2 Sufficient evidence of qualification

### 2.1 Exempted micro enterprises

Sufficient evidence of qualification as an Exempted Micro-Enterprise is a:

- a) a registered auditor's certificate or similar certificate issued by an accounting officer as contemplated in the Close Corporation Act of 1984 in respect of the entity's last financial year or a 12 month period which overlaps with its current financial year; or a certificate issued by a verification agency and which is valid as at the closing date for submissions; or.
- b) a sworn affidavit B-BBEE Exempted Micro Enterprise (see www.thedti.gov.za/gazzettes/Affidavit EME.pdf

### 2.2 Enterprises other than micro exempted enterprises

Sufficient evidence of B-BBEE Status is:

- a) an original or certified copy of the certificate issued by a verification agency accredited by the South African National Accreditation System (SANAS) or registered auditors approved by Independent Regulatory Board for Auditors (IRBA) and which is valid as at the closing date for submissions; or.
- b) a sworn affidavit B-BBEE Qualifying Small Enterprise (see <a href="https://www.thedti.gov.za/gazzettes/BBEE\_QUALIFYING\_SMALL\_ENTERPRISE.pdf">www.thedti.gov.za/gazzettes/BBEE\_QUALIFYING\_SMALL\_ENTERPRISE.pdf</a>)

#### 3 Tender preferences claimed

The scoring shall be as follows:

B-BBEE status determined in accordance with the preferencing schedule for Broad-Based Black Economic Empowerment	% max points for preference
Form not completed or no-complaint contributor	0
Level 8 contributor	10
Level 7 contributor	20
Level 6 contributor	30
Level 5 contributor	40
Level 4 contributor	50
Level 3 contributor	80
Level 2 or contributor	90
Level 1 contributor	100

### 4 Declaration

The tenderer declares that

a) the tendering entity is a level contributor as stated in the submitted evidence of qualification as at the closing

b)	date for submissions the tendering entity has been measured in terms of the following code (tick applicable box)
	Generic code of good practice
	Other – specify
c)	the contents of the declarations made in terms of a) and b) above are within my personal knowledge and are to the best of my belief both true and correct
she un	dersigned, who warrants that he / she is duly authorised to do so on behalf of the tenderer confirms that he / derstands the conditions under which such preferences are granted and confirms that the tenderer satisfies additions pertaining to the granting of tender preferences.
Signat	ure :
Name	:
Duly a	uthorised to sign on behalf of :
Teleph	one :
Fax:	Date :
Name	of witness Signature of witness
Note:	1) Failure to complete the declaration will lead to the rejection of a claim for a preference
	<ol> <li>Supporting documentation of the abovementioned claim for a preference must be submitted with the tender submission to be eligible for a preference</li> </ol>

# **Annual Financial Statements Declaration**

The unc	dersigned, who warrants that he / she is duly authorised to do so on behalf of the respondent, confirms that:
1)	The enterprise's financial year end is
2)	The enterprise's financial statements have been prepared in accordance with the provisions of the Companies Act of 2008 or the Close Corporation Act of 1984, as applicable
3)	The enterprise has compiled its financial accounts [tick one box]:
	□ internally □ independently
4)	The following statement applies to the enterprise [tick one box and provide relevant information]
	□ enterprise has had its financial statements audited;
	name of auditor
	□ enterprise is required by law to have an independent review of its financial statements
	name of independent reviewer
	<ul> <li>enterprise has not had its financial statements audited and is not required by law to have an independent review or audit of such statements</li> </ul>
5)	The attached income statement and balance sheet is a true extract from the financial statements complying with applicable legislation for the preceding financial year within 12 months of the financial year end.
	[Attach the income statement and the balance sheet contained in the financial statement]
6)	The annual turnover for the last financial year is R
7)	The total assets as at the end of the last financial year is R
8)	The total liabilities as at the end of the financial year is R
	declare that the contents of this Declaration are within my personal knowledge, and save where stated otherwise are to tof my belief both true and correct.
;	Signed Date
	Name Position
Τε	enderer

# **Certificate of Authority for Joint Ventures**

NAME OF FIRM ADDRESS DULY AUTHORISE SIGNATORY  Lead partner  Signature Name Designation  Signature Name Designation		, acting in the capacit	ty of lead partner, to sign all documents in conne
Signature Designation  Signature Name Designature Name	e tender offer and any	contract resulting from it on our	behalf.
Signature  Name  Designation  Signature  Name	NAME OF FIRM	ADDRESS	
Name  Designation  Signature Name	ead partner		
Name  Designation  Signature Name			
Designation  Signature Name			3
Name			
			Signature
Designation			
			Designation
			Signature

Designation

# SCHEDULE OF PROPOSED SUB-CONTRACTORS

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

ITEM (Please specify)	PROPOSED SUBCONTRACTOR	ADDRESS TELEPHONE AND FAX NUMBER WHERE MANUFACTURE INSPECTION AND TESTS WOULD BE EXECUTED	B-BEE LEVEL OF SUBCONTRACTOR (B-BEE Certificate or sworn affidavit from DTI must be attached)
			,
Consortia / Joint Vent Certificate. (Failure to	ures / Sub-contractors are in comply with this requiremen	ce Certificate Requirements, paragraph volved, each party must submit a separa t will render your bid non-responsive)  LEARANCE CERTIFICATES OF ALL SUB	ate Tax Clearance
YES NO	]		
		TED SUB-CONTRACTORS' ORIGINAL REGARDED AS NON-RESPONSIVE	AND VALID TAX
DID YOU ATTACH OLISTED ABOVE?	CERTIFIED COPIES OF VALI	D B-BEE CERTIFICATES OF ALL SUB-	CONTRACTORS' AS
YES NO	]		
CERTIFICATES OR		SUB-CONTRACTORS' CERTIFIED COPIE N AFFIDAVIT OBTAINABLE FROM THE RDED AS NON-RESPONSIVE	
NAME OF BIDDER:		COMPANY NAME:	
SIGNATURE OF BIDDI	ER:	DATE:	

# SCHEDULE OF SIMILAR WORK UNDERTAKEN BY BIDDER

The Bidder shall, in the schedule hereunder, list all work of a similar nature to that contained in this Contract which has been carried out by him during the past five years and/or which is at present being carried out by him.

DESCRIPTION AND LOCALITY OF WORK	NAME TELEPHONE AND FAX NUMBER OF FIRM OF ENGINEERS, MUNICIPALITY, OR GOVERNMENT DEPARTMENT WHO ADMINISTERED THE WORK	APPROXIMATE VALUE OF WORK IN RAND	DATE
E: IF NO SIMILAR WORK H. THE TENDERER	AS BEEN CARRIED OUT, THE ABOVE SO	CHEDULE IS TO BE MARKED "NIL" BY	
TE OF BIDDER:	COMPANY NA	AME:	

NAME OF BIDDER:	COMPANY NAME:	
SIGNATURE OF BIDDER:	DATE:	

### **IMPORTANT NOTE:**

FAILURE BY THE BIDDER TO LIST PREVIOUS SIMILAR WORK DONE, THE BID SHALL BE REGARDED AS NON-RESPONSIVE

# **BID DWS03 0621WTE**

# SCHEDULE OF QUALIFICATIONS/EXPERIENCE OF KEY PROJECT TEAM MEMBERS

The bidder shall state hereunder the qualifications and experience of each key project team members whom he proposes to employ in the execution of all or main sections of the works.

NAME	QUALIFICATIONS	PROJECT TEAM MEMBER (WORKS AND TIME SPENT)
SIGNATURE OF BIDDER		DATE

# <u>AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND</u> SAFETY ACT, NO. 85 OF 1993

The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the Occupational Health and Safety, Act No. 85 of 1993, hereinafter referred to as 'the Act', that the Contractor as an employer in its own right and in its capacity as contractor for the execution of the works, shall have certain obligations and that the following arrangements shall apply between them to ensure compliance by the Contractor with the provisions of the Act, namely:-

- The Contractor undertakes to acquaint the appropriate officials and the employees of the Contractor with all relevant provisions of the Act, and the regulations promulgated in terms of the Act, and
- ii) The Contractor undertake that all relevant duties, obligations and prohibitions imposed in terms of the Act and regulations will be fully complied with, and
- iii) The Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and regulations and expressly absolves the Employer and the Employer's consulting engineers from being obliged to comply with any of the aforesaid duties, obligations and prohibitions.
- iv) The Contractor shall be obliged to report forthwith to the Employer any investigation, complaint, or criminal charge which may arise as a consequence of the provisions of the Act and regulations pursuant to work performed on behalf of the Employer, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

SIGNED at	On this	day of	20
For and on behalf of the Co	ontractor: Name:		
	Company Name:		
AS WITNESSES:			
1			
2.			
for and on behalf of the Em	ployer:		
AS WITNESSES:			
1			
2			

NOTE: As and when required; the Contractor will be required to sign project specific agreements in terms of section 37(2) of the Occupational Health and Safety Act no 85 of 1993. See example attached.



# **MEMORANDUM OF AGREEMENT**

# between

# **DEPARMENT OF WATER AND SANITATION**

<u>and</u>

**CONTRACTOR X** 

**TITLE OF PROJECT** 

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# 1. MEMORANDUM OF AGREEMENT

Between

Department of Water and Sanitation

(Hereinafter referred to as DWS)

and

# Contractor X

(Hereinafter referred to as "the Contractor")

In terms of Section 37(2) of the Occupational Health and Safety Act 85 of 1993 and its regulations, henceforth referred to as the OHS Act, the provision of Section 37(1) of the same act apply to Contractor X henceforth referred to as the contractor, in as far as, DWS shall not be responsible or liable for the actions or inaction's whatsoever in contravention of the OHS Act taken by the employees of the contractor, in the fulfillment of the contract undertaken by the contractor.

As an **employer in your own right**, you, the contractor are obliged to comply with all the provisions of the OHS Act while on the premises of DWS, you shall also be required to comply with the conditions and safety procedures of DWS.

DWS hereby reserves the right to cause all work undertaken by the contractor, that is in contravention of the OHS Act and that has come to the attention of DWS to cease, until satisfied that such contravention has been rectified. Non compliance to DWS arrangements and procedures will adversely affect future contracts, while serious non compliance may lead to immediate expulsion from the premises.

# 2. REQUIREMENTS, ARRANGEMENTS AND PROCEDURES FOR CONTRACTORS

- 2.1 It is a condition of this contract that your employees, and any sub-contractors, be covered in terms of the Compensation for Occupational Injuries and diseases Act 130 of 1993 as amended. A copy of good standing with the Compensation Commissioner shall be attached to the signed copy of this legal document. Furthermore, the contractor or sub-contractor certifies that such cover will not expire during the execution of the task nor will the contractor become in arrears with any payment due to the Commissioner or any other documentation required by the Commissioner.
- 2.2 The contractor furthermore agrees to the following health and safety rules of Department of Water and Sanitation:

- 2.2.1 The contractor shall have available a copy of the OHS Act on request.
- 2.2.2 Any contractor with more than five employees at any time on the premises shall have available a first aid box for prompt first aid.
- 2.2.3 Any contractor with ten or more employees shall have at least one competent and valid first aider on the premises at their workplace. Should there be fifty or more employees on the premises a further first aider for every fifty employees or part thereof shall be available.
- 2.2.4 Any contractor with less than ten employees on the premises shall ensure that such employees are made conversant with the first aider at their workplace.
- 2.2.5 The contractor shall keep up to date and available for inspection all applicable legally required registers.
- 2.2.6 The contractor shall make himself and his employees conversant with Department of Water and Sanitation emergency and evacuation procedures.
- 2.2.7 The contractor shall not misuse anything, which is supplied in the interest of health and safety.
- 2.2.8 The contractor shall adhere to all DWS safe working procedures.
- 2.2.9 The contractor shall be subject to the health and safety and security rules of DWS.
- 2.2.10 No intoxicating drugs or liquor will be consumed on or brought onto the premises and no person under the influence or who appears to be under the influence will be permitted to come onto or remain on the premises or at a workplace.

# 3. INDEMNIFICATION

- 3.1 The contractor hereby certifies that all contracting workmen recognize the inherent hazards that exist on the premises of DWS and that the Contractor:
  - 3.1.1 Enters the property entirely at his/her own risk and therefore the Contractor waives any claim of whatsoever nature against DWS, its employees, agents and/or mandatories in respect of any loss, damage and/or injury whether same is the result of any negligent act or omission on the part of DWS, its employees, agents and/or mandatories or other independent contractors or by a third person or by way of defective equipment or materials supplied by the company, and further the Contractor;
  - 3.1.2 Hereby indemnifies DWS, its employees, agents and/or mandatories against any claims from the Contractor's employees and/or from any other person, arising and being caused in the manner set out above.

4.	ACCEPTANCE		
4.1	I,hereby declare that my company Contractor understood the conditions contained in this employees agree to abide by these conditions.	<ul> <li>X acknowledge having relegal document and furthern</li> </ul>	ad and
CON	ITRACTOR (Contractor X )	DA	TE
Depa	artment of Water and Sanitation	DATE	
WITN	NESS 1	DATE	
WITN	NESS 2	DATE	

		Part T2:	Returnable Documents
T2.2	Returnable Schedules		

INDE	IDEX	
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### 1. NOTICE OF SITE INSPECTION

- 1.1 Bidders will be invited to quote against specific installations at some of the Dams in the respective regions. Bidders are therefore invited to the compulsory site inspection that will be held at Grootdraai Dam and Vanderkloof Dam. The bidders will be given specific instructions and allowed to examine some of the items listed in the bid schedules. (Personal Protective Equipment (PPE) such as safety boots will be required before entering the site to examine some of the items.)
- 1.2 Bidders are advised to visit the site to acquaint themselves with the local conditions.
- 1.3 Claims that may arise at a later stage due to lack of information in this regard WILL NOT BE CONSIDERED.
- 1.4 Prospective Bidders are further advised to make their own arrangements for additional site visits, a general site visit will be arranged by the Employer's Agent's Representative. Bidders wishing to obtain access to site shall contact the Employer's Agent's Representative, who will co-ordinate such visit with the local Water and Sanitation personnel.

### 2. COMPULSORY SITE INSPECTION DATE

The date and time of the site visit will be published in the Government Gazette along with the advertisement for this bid. The site inspections will be held at following venue:

Arrangements for site visits and inspections of the equipment at the various sites can be arranged with the Departmental Representative and his numbers are:

OPERATIONAL AREA	VENUE FOR COMPULSORY SITE MEETING	CONTACT PERSON	CONTACT NUMBERS
Central Operations (Gauteng, Free State, KwaZulu Natal & Mpumalanga)	Grootdraai Dam	Mr. Sean Madjoe	Landline: 071 712 9400 Cell: 079 159 0211
Central Operations (Free State & Northern Cape)	Vanderkloof Dam	Mr. Obakeng Moatshe	Landline: 051 405 9206 Cell: 083 300 8558

Should there be any difficulties in contacting the above listed officials please contact Mr T Ngati on Landline: (012) 336 8623 or Cell: 071 870 7403.

NOTE: PLEASE NOTE THAT NO CLAIMS FOR ATTENDING THE COMPULSORY SITE BRIEFING / SESSION SHALL BE CONSIDERED. ALL COSTS PERTAINING TO ATTENDING THIS SESSION SHALL BE BOURNE BY THE CONTRACTOR(S).

### 3. SITE DESCRIPTION

Price Schedules 1, 2 and 3 comprises a description of a specific installation for adjudication purposes for the four (4) Operational Areas.

There compulsory site inspection sessions shall be held as follows:

OPERATIONAL	VENUE FOR GPS COORDINATES		S	
AREA	SITE MEETING	SOUTH	EAST	
Central Operations (Gauteng, Free State, KwaZulu- Natal & Mpumalanga)	Usutu-Vaal GWS	26°55′9″	29°17′53″	
Central Operations (Free State & Northern Cape)	Vanderkloof Dam	29°59′4″	24°43′5″	

Directions per Operational Area on how to get to the site to attend the compulsory site inspection sessions are as follows:

# CENTRAL OPERATIONS (Gauteng, Free State & Northern Cape)

Meeting no.1: Grootdraai Dam (Mpumalanga Province)

From Standerton towards Ermelo five kilometres from the traffic light the road turns right to the dam at the sign for the Usutu-Vaal GWS.

Meeting no. 2: Vanderkloof Dam (Northern Cape Province)

# 4. TECHNICAL CLARIFICATION MEETING

A Technical Clarification Meeting, to discuss and clarify any technical queries that may exist regarding the bid shall be held before the bids close. Project and technical meetings between the Department and the appointed Contractor will be held at monthly intervals.

# SITE INSPECTION CERTIFICATE: BID DWS03 0621WTE

# 4.1.1 CENTRAL OPERATIONS (GAUTENG, FREE STATE, KWAZULU-NATAL, MPUMALANGA & NORTHERN CAPE)

This is to certify	y that I,
Representative	of (Bidder)
Of (address)	
	Telephone No:
In the company	of (DWS Representative)
Visited the site	on
	sly studied the documents, I carefully examined the site and equipment. I have amiliar with all the equipment likely to influence the work and the cost thereof.
	that I am satisfied with the description of the work and the explanations given by the ntative and I understand perfectly the work to be done, as specified and implied, in of this Contract.
Signed on beha	alf of the Bidder (PRINT NAME AND SIGNATURE)
DWS Represer	ntative (PRINT NAME AND SIGNATURE)
Witness	(PRINT NAME AND SIGNATURE)

# **TECHNICAL SCHEDULES**

Bidders are advised that it is in their best interest to provide accurate and detailed information in answer to all questions asked in the TECHNICAL SCHEDULES.

# **SCHEDULE OF PRICES**

Section 1

☐ YES

The Employer's Agent reserves the right to correct any arithmetical errors found in the completed schedules.

GENERAL INFORMATION
Client's Name:Department of Water and Sanitation, National Water Resources Infrastructure (NWRI)
Bid Name: Installation, Maintenance, Repair, Refurbishment and Upgrade of Mechanical and Other Related equipment.
Bid Number: DWS 03-0621 WTE
Are you able to perform all the work that this Bid calls for YES NO
Is your quality system SANS ISO 9001:2000 registered? ☐ YES ☐ NO
SITE INSPECTION
Did you attend the site inspection? ☐ YES ☐ NO
BIDDED RATES
Are all your bidded rates firm?
State which are not and the reasons why.
EQUIPMENT AND FACILITIES
Can you, at you own facilities, service/refurbish a preponderance of the equipment listed in the Technical specification and requirements

Section 2 YES NO
If the answer to either the two above questions is NO, state which items and the reasons why.
Which Central Operations' Area Office are you bidding for?
Are your facilities (workshop) located near the Vanderkloof Dam and Bloemfontein?  YES NO
Are your facilities (workshop) located near the Usutu Vaal and Vaal Dam Area Office?  YES NO
Are your facilities (workshop) located near the Tugela Vaal Area Office?  YES NO
Are your facilities (workshop) located near the Usutu River Area Office?  YES NO
Are your and your sub-contractors facilities (workshops) available for inspection?  YES NO
List the addresses of location where your facilities (workshops) are located ( <b>If inadequate space please attached a list with full details</b> )

# **SUBCONTRACTORS** Will subcontractors perform portions of the work bidded for? ☐ YES Are your sub-contractors BBBEE rated? ☐ YES If yes, list the subcontractors below (If inadequate space please attached a list with full details) List the addresses of locations where "off-site" maintenance will be performed: (Note: this shall include addresses of the subcontractors to be employed) If the space provided above is not sufficient, please submit details on separate pages attached to your offer. For which items of equipment will the above listed facilities be used? What percentage mark-up charged on work performed by Subcontractors will be calculated in accordance with Part 4 Conditions for Maintenance Contract, Paragraph 6.1.5. **STAFF** List the numbers of staff in the following categories presently available within your own organisation: Management **Engineers**

**Technicians** 

Safety	Officer	•	<del></del>		
Qualit	y Control Inspector	:			
Admir	nistration	:			
Specia	alist Artisans	: <u> </u>			
Artisa	ns	: <u> </u>			
Skilled	t	: <u> </u>			
Driver	(EHMV)	: <u> </u>			
Semi	Skilled	:			
Gene	al Workers	<u>:</u>	<u></u>		
EXPE	RIENCE				
Do yo	u have proven experience	to perform the			
activit	activities and work called for in this document?				
List al	I previous major undertakii	ngs:			
occi	JPATIONAL HEALTH AN	D SAFETY			
a)	Are you conversant with Regulations)?	the Occupational	Health and Sa	afety Act, Act 85 of 1 ☐ YES	993 (and it's ☐ NO
b)	Will you prepare a Safety	File for all site a	ctivities?	☐ YES	□NO
c)	Will you comply with the	"Department Sec	curity Rules an	d Regulations for Co ☐ YES	ontractors"? ☐ NO
d)	Will you comply with "Sat	fety and Security	Instructions fo	r Contractors" ☐ YES	□NO

# CONTRACT

Part C1: Agreement and Contract Data

C1.1 Form of Offer and Acceptance

#### FORM OF OFFER AND ACCEPTANCE

### **OFFER**

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

THREE YEAR TERM CONTRACT FOR MECHANICAL AND OTHER RELATED MAJOR PLANT AND MACHINERY INSTALLATION, MAINTENANCE, REPAIR, REFURBISHMENT AND UPGRADE FOR CENTRAL OPERATIONS (FREE STATE, KWAZULU-NATAL, NORTHERN CAPE, MPUMALANGA, GAUTENG).

The Bidder, identified in the offer signature block, has examined the documents listed in the Bid Data and addenda thereto as listed in the Bid forms and schedules, and by submitting this offer has accepted the Conditions of Bid.

By the representative of the Bidder, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the Bidder offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of Value Added Tax is			
		ds); R	
and Acceptance ar of validity stated	nd returning one copy of t in the Bid Data, where	er by signing the acceptance par his document to the Bidder before upon the Bidder becomes the ntified in the Contract Data.	e the end of the period
Signature(s)			
Name(s)			
Capacity			
for the Bidder			
	(Name and address	of organisation)	
Name & signature	e of witnesses:	Date:	
Witness 1			
Witness 2			

### **ACCEPTANCE**

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Bidder's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Bidder's offer shall form an agreement, between the Employer and the Bidder upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract, are contained in

Part T1: Tendering Procedures
Part T2: Returnable Documents

Part C1: Agreement and Contract Data

Part C2: Pricing Data
Part C3: Scope of Work
Part C4: Site Information

and documents or parts thereof, which may be incorporated by reference into Part T1 to Part C4.

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

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

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

Signature(s)		
Name(s)		
Capacity		
for the Employer		
(Name and address of organisation)		
Name & signature of witnesses:	Date:	
Witness 1		

Witness 2	

#### SCHEDULE OF DEVIATIONS

### Notes:

- 1. The extent of deviations from the Bid documents issued by the Employer prior to the Bid closing date is limited to those permitted in terms of the Conditions of Bid;
- A Bidder's covering letter shall not be included in the final contract document. Should any
  matter in such letter, which constitutes a deviation as aforesaid become the subject of
  agreements reached during the process of, offer and acceptance, the outcome of such
  agreement shall be recorded here;
- 3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the Bid documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here;
- 4. Any change or addition to the Bid documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1.	Subject
	Details
2.	Subject
	Details
3.	Subject
	Details
4.	Subject
	Details

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

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

# FOR THE EMPLOYER Signature(s) Name(s) Capacity for the Employer (Name and address of organisation) Name & signature of witnesses: Date: Witness 1 Witness 2 FOR THE BIDDER: Signature(s) Name(s) Capacity for the Bidder (Name and address of organisation) Name & signature of witnesses: Date: Witness 1

**END OF SECTION** 

Witness 2

# Part C1: Agreement and Contract Data

C1.2 Contract Data

#### **CONTRACT DATA**

#### **GENERAL CONDITIONS OF CONTRACT**

The General Conditions of Contract for Construction Works, 3<sup>rd</sup> Edition (2015), published by the South African Institution of Civil Engineering, is applicable to this Contract.

The General Conditions of Contract are not bound into this document, but are available at the Contractor's expense from the Secretary of the South African Institution of Civil Engineering, Private Bag X200, Halfway House, Midrand, 1685 or <a href="https://www.saice.org.za">www.saice.org.za</a>.

#### **CONTRACT DATA**

In terms of clause 1.1.1.8 of the General Conditions of Contract for Construction Works, 3<sup>rd</sup> Edition (2015), the following Contact Data apply to this Contract.

The Contract Data consists of two parts. Part 1 contains information provided by the Employer, while Part 2 contains information to be provided by the Contractor.

Part 1: Data Provided by the Employer

Clause	Contract Data
1.1.1.5	Replace the contents of Clause 1.1.1.5 with the following:
	The "Commencement Date" means the date on which the Contractor receives a written instruction from the Employer to commence with the Works. The instruction to commence with the works will be issued as soon as the Service Level Agreement (SLA) is signed between the Employer and the Contractor.
1.1.1.13	Add the following to the end of this definition:
	The Defects Liability Period is 12 months.
1.1.1.14	Add the following to the end of this definition:
	This clause shall apply <i>mutatis mutandis</i> to any portion or phase of the Works that may be described in the Scope of Works or in the Contract Data, or agreed subsequently between the Contractor and the Employer, and committed to writing.
1.1.1.15	The Employer is The Director- General of Water and Sanitation acting on behalf of the Government of the Republic of South Africa.
1.1.1.16	The Employer's Agent is the Chief Director: Infrastructure Operations and Maintenance.
1.1.1.17	The Employer's Agent's Representative also referred as the Engineer means any Director, Associate or Professional Engineer or Engineering Professional appointed generally or specifically by DWS to fulfil the functions of the

Clause	Contract Data					
	Employer's Agent in terms of the Conditions of Contract.					
1.1.1.26	The pricing strategy is Re-measurement Contract.					
1.2.1	Add the following to the clause:					
	1.2.1.3 Sent by facsimile, electronic or any like communication irrespective of it being during office hours or otherwise.					
	1.2.1.4 Posted to the Contractor's address, and delivered by the postal authorities.					
	1.2.1.5 Delivered by a courier service, and signed for by the recipient or his representative.					
1.2.1.2	The address of the Employer is:					
	Sedibeng Building					
	185 Francis Baard Street					
	Pretoria					
	0001					
	The address and telephone number of the Employer's Representative is:					
	Ms N Ndumo					
	Praetor Building (Office )  267 Lillian Ngoyi Street (Former Van der Walt Street)  Pretoria					
	0002					
	Tel: 012 741 7302					
	Fax:					
1.3.6	Replace the contents of Clause 1.3.6 with the following:					
	The copyright in all documents, drawings and records (prepared by the Engineer) related in any manner to the Works shall vest in the Employer or the Engineer or both (according to the dictates of the Contract that has been entered into by the Engineer and the Employer for the Works), and the Contractor shall not furnish any information in connection with the Works to any person or organisation without the prior approval of the Employer to this effect.					
3.2.3	The Employer's Agent is, in terms of his appointment by the Employer for the design and administration of the Works included in the Contract, required to obtain the specific approval of the Employer for the execution of the following duties:					
	3.2.3.1 The issuing of an order to suspend the progress of the Works, the extra cost resulting from which order is to be borne by the Employer in terms of Clause 5.11 or the effect of which is liable to give rise to a claim by					

Clause	Contract Data					
	the Contractor for an extension of time under Clause 5.12 of these conditions.					
	3.2.3.2 The issuing of an instruction or order to vary the nature or quantity the Works in terms of Clause 6.3. 3.2.3.3 The approval of any clausements by the Contractor in terms of Clause 10.1.					
4.1.2	Add the following to the clause:					
	The Contractor shall provide the following to the Employer's Agent or his Representative for retention by the Employer or his assignee in respect of all works designed by the Contractor:					
	4.1.2.1 a Certificate of Stability of the Works signed by a registered Professional Engineer confirming that all such works have been designed in accordance with the appropriate codes of practice.					
	4.1.2.2 proof of registration and of adequate and current professional indemnity insurance cover held by the designer(s).					
	4.1.2.3 design calculations should the Employer's Agent or his Representative request a copy thereof.					
	4.1.2.4 engineering drawings and workshop details (both signed by the relevant professional engineer), in order to allow the Employer's Agent or his Representative to compare the design with the specified requirements and to record any comments he may have with respect thereto.					
	4.1.2.5 "As-Built" drawings in DXF electronic format after completion of the Works.					
	The Contractor shall be responsible for the design of the Temporary Works.					
4.3.3	Add the following new clause:					
	The Contractor shall comply with the Occupational Health and Safety Specification prepared by the Employer in terms of the Construction Regulations, 2003 promulgated in terms of Section 43 of the Occupational Health and Safety Act (Act No. 85 of 1993).					
	Without limiting the Contractor's obligations in terms of the Contract, the Contractor shall before commencement of the Works or any part thereof, be in the possession of an approved Health and Safety Plan.					
	The Contractor shall submit an approved Health and Safety Plan to the Employer's Agent / Engineer within 14 days from the date that the Departmental Purchase Order has been issued.					
4.3.4	Add the following new clause:					
	Contractor's liability as mandatory					
	designed in accordance with the appropriate codes of practice.  4.1.2.2 proof of registration and of adequate and current professional indemr insurance cover held by the designer(s).  4.1.2.3 design calculations should the Employer's Agent or his Representat request a copy thereof.  4.1.2.4 engineering drawings and workshop details (both signed by the relevance professional engineer), in order to allow the Employer's Agent or Representative to compare the design with the specified requireme and to record any comments he may have with respect thereto.  4.1.2.5 "As-Built" drawings in DXF electronic format after completion of tworks.  The Contractor shall be responsible for the design of the Temporary Works.  Add the following new clause:  The Contractor shall comply with the Occupational Health and Safspecification prepared by the Employer in terms of the Construct Regulations, 2003 promulgated in terms of Section 43 of the Occupation Health and Safety Act (Act No. 85 of 1993).  Without limiting the Contractor's obligations in terms of the Contract, Contractor shall before commencement of the Works or any part thereof, be the possession of an approved Health and Safety Plan.  The Contractor shall submit an approved Health and Safety Plan to the Employer's Agent / Engineer within 14 days from the date that the Departmental Purchase Order has been issued.  Add the following new clause:					

Clause	Contract Data						
	Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2003, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37 (2) of the Act.						
4.3.5	Add the following new clause:						
	Contractor to notify Employer						
	The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations.						
4.3.6	Add the following new clause:						
	Contractor's Designer						
	The Contractor and his designer shall accept full responsibility and liability to comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2003 for the design of the Temporary Works and those part of the Permanent Works which the Contractor is responsible to design in terms of the Contract.						
4.10.3	Add the following new clause:						
	The Contractor shall use local labour in accordance with the requirements contained within the Bid Document.						
5.3.1	Add the following:						
	The documentation required before commencement with Works Execution are:						
	Health and Safety Plan (Refer to Clause 4.3)						
	Initial Programme (Refer to Clause 5.6)						
	A detailed cashflow forecast (Refer to Clause 5.6.2.6)						
	Insurance (Refer to Clause 8.6)						
5.3.2	Add the following:						

Clause	Contract Data					
	The time to submit the documentation required (Refer to Clause 5.3.1) before					
	commencement with Works execution is 14 days.					
5.4.2			possession of Site shall not be exclusive to the Contractor but site information.			
5.6.1	Add the fo	llowing	g to the clause:			
	In this regard the Contractor shall have regard for the phases and sub-phases (if applicable) for the Scheme or Development, which shall also be the order in which the Permanent Works shall be constructed, unless otherwise agreed between the parties and committed to writing. If phased construction is applicable, the phases and sub-phases will be described in the Specifications and/or will be indicated on the Phasing Plan which forms part of the Drawings.					
5.8.1	The non-w	orking	g days are Sundays.			
	1		rking days shall be 16 December to 2 January (both days outh African Statutory Public Holidays.			
5.12.5	Add the fo	llowin	g new clause:			
	Extension	of tir	me due to Abnormal Rainfall			
		Extension of time for completion of the Contract shall be allowed in the event of abnormal rainfall in accordance with the following formula:				
	V	=	$(N_w - N_n) + (R_w - R_n)/20$			
	Where:					
	7.1.1.1.1.1.1.1 V = Extension of time in calendar days for the calendar month under consideration					
	Nw	=	Actual number of days during the calendar month under			
			consideration on which a rainfall of 10mm and more is recorded			
	R <sub>w</sub>	=	Actual total rainfall in mm recorded during the calendar month			
			under consideration			
	Nn = Average number of days, derived from rainfall records, or which					
			a rainfall of 10mm and more was recorded during the relevant			
	Do		calendar month as per the data tabulated hereinafter			
	Rn	=	Average total rainfall in mm for the relevant calendar month, derived from rainfall records, as tabulated hereinafter			
	Where the	exter	nsion of time due to abnormal rainfall has to be calculated for			

Clause	Contract Data						
	portion of a calendar month, pro rata values shall be used. Should V be						
	negative for any particular month, and should its absolute value exceed the						
	correspo	corresponding value of $N_n$ , then V shall be taken as being equal to minus $N_n$ .					
	The total extension of time to be granted shall be the algebraic sum of all the						
	monthly	extensions, provided	that if this total	is negative then	the time for		
	completi	on shall not be reduced	d due to subnorm	al rainfall.			
		,					
	Rainfall	records for the period	of construction	shall be taken of	on Site. The		
	Contract	or shall provide and in	stall all the nece	ssary equipment	for accurately		
	measurir	ng the rainfall. The Co	ntractor shall als	o provide, erect a	nd maintain a		
	security	fence plus gate, padlo	ck and keys at ea	ach measuring sta	tion, all at his		
	own cos	t. The Engineer or his	Representative	shall take and re	cord the daily		
	rainfall re	eadings. The Contracto	or shall be permit	ted to attend thes	e readings, in		
	the com	pany of the Enginee	r's Representati	ve. Access to the	ne measuring		
	gauge(s)	shall at all times be ur	nder the Enginee	r's control.			
		all records applicable t					
	rainfall s	tation near the site. Th	e following value	s of $N_n$ and $R_n$ sh	all apply:		
				<u> </u>	I		
		Month	$R_n$	$N_n$			
			(mm)	(days)			
		January – .	101.5	2.4			
		February	209	3.8 3.8			
	March 123.6						
		April	49.1	1.3			
		May	7.2	0.3			
	June 12.6 0.3						
		July	11.0	0.3			
		August	5.2	0			
		September	16.7	0.3			
		October	48.5	1.3			
		November	89.9	2.5			
		December	123.2	3.2			
		Total	797.5				
5.13.1	The penalty for failing to complete the Works is 1/14 % of the Project Quoted						
	price per day.						
F 10 -							
5.13.3	Add the f	ollowing new Clause.					
	The imp	osition of penalties in	terms of Claus	e 5.13.1 shall no	ot relieve the		
	Contractor from his obligation to complete the works, nor from any of his						
	obligations and liabilities under the Contract.						

Clause	Contract Data				
6.8.2	The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values: The value of "x" is 0.15 the portion, expressed as a decimal of unity, not subject to adjustment. The values of the coefficients are:  a = 0.25 Labour  b = 0.25 Contractor's equipment (Plant)  c = 0.4 Material  d = 0.1 Fuel  "L" is the "Labour Index" and shall be the "Consumer Price Index" for Limpopo (all urban areas) and as published in the Statistical News Release, P0141, Table 13 provided in the additional tables (previously P0141.1 Table 7.1) of Statistics South Africa.  "P" is the "Plant Index" and shall be the "Civil Engineering Plan Index" as published in the Statistical News Release P0142.1, Table 12 (previously P0142.1 Table 16) of Statistics South Africa.  "M" is the "Materials Index" and shall be the "Civil Engineering Materials Index" as published in the Statistical News Release P0142.1, Table 11 (previously P0142.1 Table 15) of Statistics South Africa.  "F" is the "Fuel Index" and shall be the "Diesel at wholesale level – Witwatersrand Index" as published in the Statistical News Release P0142.1, Table 12 (previously P0142.1 Table 16) of Statistics South Africa.  The base month is the month prior to the latest date for submission of the				
6.8.3	Price Adjustments for variations in the cost of special materials is allowed. The Contractor will be required to provide full details in Part 2 of the Contract Data.				
6.8.4	Delete the words "between the Employer and the Contractor".				
6.10.3	Where applicable the percentage retention will be indicated by the Employer's Agent or his Representative with no limit of retention money.				
8.6.1.3	Where applicable the limit of indemnity for liability insurance is R10 000 000 per event, the number of events being unlimited.				

Clause	Contract Data				
10.5.3	The number of Adjudication Board Members to be appointed is 3 (three).				

# Part 2: Data provided by the Contractor (Bidder)

Clause	Contract Data				
1.1.1.9	The name of the Contractor	or is:			
1.2.1.2	The address of the Contraction	ctor is:			
6.2.1	The security to be provided by the Contractor shall be a Performance Guarantee of 10% of the Contract Sum (Incl. VAT):				
6.5.1.2.3	per cent on the gross remuneration of the workmen and foremen actually engaged per cent on net cost of materials actually used				
6.8.3	The variation in cost of spe	ecial materials is:			
	Special Material	Method	Price for Base Month		

**END OF SECTION** 

Part C2: Pricing Data

C2.1 Pricing Assumptions

(No Content)

# Part C2: Pricing Data

C2.2 Pricing Schedules

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8.	CENTRAL OPERATIONS (FREE STATE, NORTHERN CAPE, KWAZULU-NATA MPUMALANGA, GAUTENG) PRICING SCHEDULES	AL, 144-236

#### 1. PRICE SCHEDULES

The price schedules herewith will be used during the Contract period.

#### 2. LABOUR COSTS

The following labour costs per appropriate skill level is required (per hour, unless otherwise specified). All prices given must **exclude** VAT.

LEVEL	NORMAL TIME	OVERTIME	TRAVELL ING TIME	STANDBY TIME	DAILY LIVING OUT ALLOWANCE
Engineer (E)					
Technician (T)					
Project Manager (PM)					
Safety Officer (SO)					
Specialist Artisan(SA) /					
Foreman					
Artisan (A)					
Semi Skilled (SS)					
Driver – EHMV (D)					
General Worker (GW)					

# Working Hours:

The contractor shall work 8 hours per day. Time shall be in accordance with DWS regulations or as agreed between the Contractor and DWS

#### Overtime:

The Contractor shall request in writing approval prior to working overtime. Approval will be granted at the discretion of the Engineer. The contractor shall, at request of the Engineer, indicate the benefit of the overtime to the Department. Emergency repairs will be exempted from the above prior approval process. Overtime shall be in accordance with the Basic Conditions of the Employment Act.

#### Travelling time:

The travelling time shall be the rates charged for personnel while travelling to and from site in order to execute the required tasks. Only 70% of the labour rate may be claimed for travelling.

#### Living Out Allowance:

The living out allowance shall include all food costs as well as any other costs that might arise when staying out, excluding accommodation.

#### Accommodation:

- 1. Departmental Accommodation
  - The Department may at its discretion provide accommodation for the contractor's personnel at the Departmental Guesthouses situated at the Dams.
- 2. Contractors Mobile Accommodation. (Furnish full rates and/or unit costs for these). Failure to do so shall render this option none-available for the duration of contract.
- 3. Approved Establishments (Hotel, Guesthouses etc.) A maximum of R1,400.00 per person per night including dinner, bed, breakfast and parking shall be claimed. No alcohol. Approved establishments' quotation and invoice shall be kept as proof and submitted during invoicing. NO proforma invoices to be used as proof of actual expenditure.

Accommodation cost can vary on availability of DWS vs. private accommodation. The Department may at its discretion provide accommodation for the contractor's personnel at the Departmental Guesthouses at the Dams.

Cost containment as per the National Treasury requirements and Practice Notes shall be applicable.

No mark-up or handling fee shall be claimed by the Contractor for accommodation, food, beverages, fuel for vehicles or equipment, etc.

#### 3. TRANSPORT COSTS

Tariff is in cents per kilometre (exclusive of VAT) as from the dates below: No back charge of tariffs will be made before the under-mentioned dates for invoices already processed.

The rates will be updated as the Department of Transport rates are adjusted.

The contractor must decide which vehicle/s to use in order to calculate the transport costs in the price schedules.

#### **Petrol**

	Sedan/station	Light delivery		Mini bus/MPV
Engine swept	wagon	vehicle (LDV) 4x2	vehicle (LDV) 4x4	
volume CC	Α	В	С	D
	From Mar 2021	From Mar 2021	From Mar 2021	From Mar 2021
Up to 1250	270.3	230.3		352.5
1251 to 1550	340.4	302.8	374.9	
1551 to 1750	367.4	335.8	3/4.9	378.1
1751 to 1950	420.4	388.9		370.1
1951 to 2150	454.0	399.4	459.8	441.2
2151 to 2500	514.2	425.7	459.6	501.5
2501 to 3500	643.7	456.8	543.5	647.4
Over 3500	753.5	515.6	608.9	740.8

#### Diesel

	Sedan/station	Light delivery		Mini bus/MPV
Engine swept	wagon	vehicle (LDV)	vehicle (LDV)	
volume CC		4x2	4x4	
volume CC	Α	В	С	D
	From Mar 2021	From Mar 2021	From Mar 2021	From Mar 2021
Up to 1250	255.8	270.2		
1251 to 1550	312.3	364.2	408.5	
1551 to 1750	341.3	371.8	400.5	471.9
1751 to 1950	353.1	391.9		
1951 to 2150	417.9	394.3	479.2	
2151 to 2500	482.8	412.6	4/ 9.2	585.1
2501 to 3500	611.2	428.7	532.4	617.6
Over 3500	011.2	561.9	639.2	721.3

### **Heavy and Extra Heavy Motor Vehicles (Diesel)**

Load Capacity in (Tonne)	Rate per Kilometre (Rand/km)
5 to 8 Tonne (drop-side)	
5 to 8 Tonne (with crane)	
10 to 14 Tonne (drop-side)	
10 to 14 Tonne (with crane)	
20 to 30 Tonne (flat-deck)	

**RATE PER KILOMETRE (Rand/km) =** this rate must include the driver/operator and is expressed in rand/km.

NOTE: 1) Escalation according to SEIFSA rates/indices shall apply for fuel and labour costs.

2) Complete above table in full

Rates for all vehicles not listed above must be supplied by the bidder for approval.

**NB** There is no provision for an additional rate for towing a trailer.

# **ACTUAL/DIRECT EXPENSES**

Reasonable actual expenses for hiring a car, light delivery vehicle or Minibus, limited to Class B vehicles, when flying to site.

#### **EQUIPMENT COSTS**

- The cost of the equipment to perform the duties as per each item shall be included in the table. Sufficient space is provided to include detailed breakdown of the equipment to be used and its relevant cost.
- Small tools, instruments and quality control instruments cost such as vacuum cleaner, drills, angle grinders etc. shall be considered to be part of the Production Artisan, Quality Inspector's, etc labour cost.

 For the purpose of performing factory tests as required in terms of this specification and where considered practical according to the discretion of the Engineer, complete assemblies will be required.

#### Labour information

The Bidder shall submit, with their **bid**, a complete list of **personnel** (from the rank of Artisan upwards) to be involved with this contract together with summarised Curriculum Vitae. The **Curriculum Vitae** shall indicate details such as **name**, **age**, **nationality**, **date of nationality** including qualifications and **relevant** experience. The bidder shall also submit an organogram of those individuals. Find attached an example of summarised Curriculum Vitae. Failure to submit the supporting CVs with the bid **may** disqualify your bid.

**Personnel**: Individuals in the permanent employment of the contractor.

The contractor shall at all times keep the list updated for his and his sub-contractor's staff.

#### 4. SPECIFIC INSTALLATION FOR ADJUDICATION PURPOSES

For the purpose of adjudication of this Bid specific sites have been chosen containing a representative number of components for the region.

The following tables refer to specific equipment that will be shown and if necessary demonstrated to the bidder at the site meeting referred to in the Instructions to bidders.

The prices below **exclude the cost of spares**. The rate includes the cost of all staff required (cost / hour) plus all overheads where appropriate, and the guarantee of all parts, materials and workmanship. The cost of equipment (such as blasting/spraying equipment, compressors, generators, machinery etc.) must be included where asked for in the pricing schedules. All prices given must **exclude** VAT.

Each table must be completed in full and the total from each brought to the summary table. Adjudication will be based on the total and not on rates.

For adjudication purposes, the Department specified the manpower level as deemed required as well as the number of hours to do the specific task. If the Bidder strongly feels that the listed manpower levels and number of hours is not a realistic indication, it should be noted at the site meeting and alternative offers may then be considered.

For adjudication purposes it shall be assumed that all the items are located at the different Dams to have a more realistic comparison of cost for contractors based in different centres.

Transport cost should reflect the transport cost of personnel to and from these sites for removal and installation of equipment as well as the transporting of equipment to and from your workshop.

#### 5. WORKSHOP

The Contractor's workshop shall be situated where possible within the boundaries of the applicable Operational Areas or located within reasonable distance from the major schemes.

#### 6. FACILITIES

The Contractors workshop must have the facilities to perform maintenance, repair and refurbishment of equipment.

#### Equipment deemed essential:

• Overhead crane, welding facilities, lathe, drill press, hydraulic press, hydraulic testing facilities (pressure testing).

#### 7. ORGANIZATIONAL CAPABILITY

The Department will evaluate the organisation, technical personnel and supportive personnel of the contractor.

#### 8 CENTRAL OPERATIONS VAAL DAM AREA

#### Total Distance\_\_\_\_km (1 trip to site & back) 8.1 NEEDLE VALVE AT BOSKOP DAM

(DN 800/700, 25 Bar, with hydraulic damping system gearbox and electric actuator)

SCOPE OF WORK	SPECIFY LEVEL	RATE	NO OF	TOTAL
	OF MANPOWER		HOURS	
Project management	1 PM		6	
Disconnect and Remove	1XA, 2XGW		5;5	
Dismantle	1XA, 2XGW		5;15	
Rough blast and clean	1XSS, 1XGW		5;3	
Inspect	1XSA, 1XA		2;4	
Report, prepare quality control plans, finalising scope of work	1XPM,1XSO		3;3	
Pressure test body	1XSA,1XA, 2XGW		1;2;2	
Fettling to specification	2XSS		16	
Final blast to SA 3	1XA,1XSS		6;16	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;16	
Polish of plunger	1XA, 1XGW		5;1	
Manufacture of crank and connecting rod bushes	1XA		2	
Reassemble	1XA, 2XGW		10;15	
Pressure test	1XSA,1XA, 2XGW		1;4;4	
Pressure test certificate	1XSA		1	
Install	1XA, 2XGW		8;8	
Testing and Commission	1XS ; 1XA		5; <b>5</b>	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment.	1xA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSS, 1XA			
Transport of the equipment to site after refurbishment	1XSS, 1XA			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XSA, 1xA			
Travel to site and back to test and commission	1XPM,1XSA, 1xA			
			Total	
Accommodation	Cost	LOA with- out Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
		I	Total	

Transport cost for item 8.1
For adjudication purposes the transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Boskop Dam

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### **8.2 SPHERICAL VALVE VAAL DAM**

(DN 1000, 2,5 MPA, WITH GEARBOX AND ELECTRIC / HYDRAULIC ACTUATOR)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY	RATE	NO OF	TOTAL
	LEVEL OF MANPOWER		HOURS	
General project management	1 PM		4	
Disconnect and Remove	1XA, 2XGW		8;8	
Dismantle	1XA, 2XGW		12;12	
Rough blast and clean	1XSS, 1XGW		6;3	
Inspect	1XPM,1XS,1XA		2;2;4	
Report, prepare quality control plans, finalising scope of work	1XPM,1XSO		3;3	
Pressure Test	1XS,1XA, 2XGW		1;2;2	
Fettling to specification	2XSS		16	
Final blast to SA 3	1XA,1XSS		6;16	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		3;18	
Reassemble & Inspection	1XPM, 1XS,1XA, 2XGW		2; 2;16;16	
Pressure Test	1XPM; 1XS,1XA, 2XGW		1; 1;4;4	
Pressure test certificate	1XSA		1	
Install	1XA,2XGW		8;8	
Commission	1XSA,1XA		5;5	
Report and submit quality control sheets	1XPM		2	
Cost of equipment to perform scope of work			1	
			Total	
	I	T		1
Travelling Time				
Travelling to site and back for pre-quotation inspection	1X PM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1xA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back by to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XSA;1XA			
Travel to site and back by to test and commission	1XPM, 1XSA and 1xA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental			Total	
		TOTAL (exc	Total	<u> </u>

#### Transport cost for item 8.2

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Vaal Dam.

TYPE OF VEHICLE (ENGIN CAPACITY)	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT		
TOTAL TRANSPORT COST					

#### 8.3 BUTTERFLY VALVE AT FIKA PATSO DAM

(DN 1500, with drop weight hydraulic / actuator) Total Distance km (1 trin to site & hack)

(DN 1500, with drop weight hydraulic / actuator)	Total Distanc	e	km (1 tri	p to site & back)
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		6	
Disconnect and remove	1xA, 2XGW		8;8	
Dismantle	1xA, 2XGW		9;9	
Rough blast and clean	1XSS, 1XGW		4;4	
Inspect	1XSA,1XA		2;2	
Report, prepare quality control plans, finalising scope of work	1XPM,1XSO		3;3	
Pressure test body	1XPM;1XSA, 1XA, 2XGW		1;1;3;3	
Fettling to specification	2XSS		10	
Manufacture and fit new stainless steel body seat	1XA,1XSS		9;3	
Manufacture new stainless steel clamp ring	1XA		6	
Manufacture new bushes	1XA		3	
Final blast to SA 3	1XA,1XSS		4;12	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1xA, 2XGW		12;12	
Pressure Test	1XPM; 1XS,1xA, 2XGW		1;1;4;4	
Pressure test certificate	1XSA		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		9;9	
Test & Commission	1XSA; 1XA		6;6	
Cost of equipment to perform scope of work	- ,		-,-	
			Total	
Travelling Time  Travelling to site and back for pre-quotation inspection.  Travelling to site and back to disconnect and remove the	1XPM, 1XA, 2XGW 1xA, 2XGW			
equipment Transport of the equipment to your works for refurbishment.				
	1XSS			
Transport of the equipment to site after refurbishment.	1XSS			
Travelling to site and back by to install equipment.  Travel to site and back for pre-commissioning tests	1XA, 2XGW			
Travel to site and back to rest and commission  Travel to site and back to test and commission	1XA, 2XGW			
Travel to site and pack to test and commission	1XPM, 1XSA; 1XA			
Accommodation	Cost	LOA without	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
	l .	TOTAL (excl. V		

#### Transport cost for item 8.3

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Fika Patso Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### 8.4 SLEEVE VALVE AT BOSKOP DAM

(DN 1000, with Electric/hydraulic actuator) Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM		4	
Dismantle and remove	1XA, 2XGW		9;9	
Dismantle	1XA, 2XGW		16;16	
Blast and clean	1XSS;1XGW		5;3	
Inspect	1XSA,1XA		1;3	
Report, prepare quality control plans, finalising scope of work	1XPM,1XSO		3;3	
Fettling to specification	2XSS		4	
Final blast to SA 3	1XA,1XSS		5;15	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1XA, 2XGW		9;9	
Pressure Test	1XPM;1XS,1XA, 2XGW		1;1;3;3	
Pressure test certificate	1XSA		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		14;14	
Test & Commission	1XSA, 1XA		4;4	
Cost of equipment to perform scope of work			1	
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection.	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1XA and 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XSA, 1XA			
Travel to site and back by to test and commission	1XPM, 1XSA, 1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
Departmental Departmental				
		TOTAL (excl.	Total	

#### Transport cost for item 8.4

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at **Boskop Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRAN	ISPORT COST	

#### 8.5 PUMP AT FIKA PATSO PUMPSTATION

(Centrifugal, axial flow, horizontal split, single stage, double suction, 6600 kV; 6.6 MW, flow rate = 2000 l/s)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		6	
Efficiency test and report	1xT;1xGW		8;8	
Uncouple coupling and loosen pipe work	1XA, 2XGW		4;4	
Remove pump	1XA, 2XGW		2;2	
Dismantle in Workshops	1XA, 2XGW		16:16	
Clean pump and piping	2XGW		8	
Inspect	1XSA		9	
Report, prepare quality control plans, finalising scope of work	1XPM,1XSO		3;3	
Final blast to SA 3	1XA,1XSS		9;18	
Coat (Epoxy minimum DFT of 400µm internally and epoxy	1XA,1XSS		9;36	
250μm & polyurethane 40μm)				
Replace shaft with new Stainless Steel shaft	1XSA,1XGW		4;4	
Replace impeller with new Stainless Steel impeller	1XSA,1XGW		4;4	
Replace all brass sleeves with new brass sleeves	1XSA,1XGW		6;6	
Replace existing neck rings with two new stainless steel neck rings (include. New stainless steel bolts)	1XSA,1XGW		8;8	
Replace existing wearing rings with two new Brass wearing	1XSA,1XGW		8;8	
rings (include. New brass bolts)	1767 1767		6.6	
Replace packings Fit parts and reassemble pump	1XSA,1XGW		6;6	
	1XSA,1XGW		8;8	
Coat pump externally to colour code	1XSS		6	
Supply test report	1XSA		4	
Supply condition of plant report on all work done (Complete including motor repair report) and completed quality control report	1XT		6	
Install pump (new packing material)	1XSA, 2XGW		8:8	
Align with laser	1XSA,2XGW		4;4	
Re-couple	1XSA,2XGW		3;3	
Connect pipework	1XSA,2XGW		5:5	
Test run	1XPM;1XSA, 2xGW		2;5;5	
Efficiency test and report	1XT, 1XGW		8;8	
Commission	1XSS,1XSA		3;3	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for the efficiency testing prior to refurbishment	1XT;1XGW			
Travelling to site and back to disconnect and remove the equipment	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSA, 2XGW			
Transport of the equipment to site after refurbishment	1XSA, 2XGW			
Travelling to site and back to install equipment and laser align	1XSA, 2XGW			
Travelling to site and back for the efficiency testing after to	1XT, 1XGW			
refurbishment	-			
Travel to site and back by to laser align, test and commission	1XPM, 1XSS, 1xSA		Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
			Total	
Contractors Mobile		TOTAL (excl. VAT)	Total	_

#### Transport cost for item 11.5

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the

detail of trips and select the type of vehicle to be used.

The equipment is located at Fika Patso Pump Station.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

# 8.6 CRANE AT VAAL DAM (SERVICE AND SPECIFY REPAIRS)

(53 Ton Portal Crane, with 2 auxiliary 7,5 ton winches)

Total Distance km (1 trip to site & back)

	I otal Distance	KITI	(1 trip to site	& back)
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		5	
Inspection and testing				
Mechanical				
	1XSA		3	
Electrical	INOA		3	
Report, prepare quality control plans, finalising scope of work	1XPM,1XSO		3;3	
Complete service	·			
• Clean				
Lubricate				
Inspect Safety system components and settings and	1XSA,2XSS		9;9	
adjust where required.				
adjust where required.				
<ul> <li>Inspect and adjust braking systems.</li> </ul>				
. ,				
Replace break shoes	1XSA,2XSS		8;8	
2.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	43/04 03/00			
Replace rope with new HDG wire rope and set limits.  Load test	1XSA,2XSS 1XSA,2XSS		36;36 8:8	
Load lest	1704,2700		0,0	
Test reports	1XSA		1	
Living out allowance	1XSA,2XSS		8 Days	
Cost of equipment to perform scope of work			<u> </u>	
			Total	
Travelling Time	1VDM 1VCA 2VCC			
Travelling to site and back for pre-quotation inspection Travelling to site and back with load test equipment and test.	1XPM, 1XSA,2XSS 1XSA, 2xSS			
Travolling to one and back with load test equipment and test.	17.07., 27.00		Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
Departmental			Total	
		TOTAL (excl. V		

#### Transport cost for item 8.6

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Vaal Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

#### 8.7 STOP LOGS AT BOSKOP DAM

(12m x 3m, Mild Steel)

**Total Distance** km (1 trip to site & back)

SCOPE OF WORK PER STOP LOG	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM		16	
Dismantle	1XA,1xSS, 2XGW		16:16:16	
Rough blast and clean	1XA, 1XSS, 1 x GW		16;16;16	
Inspect	1XM,1XA		2;6	
Report, prepare quality control plans, finalising scope	1XPM,1XSO		3;3	
of work				
Final blast to SA 3	1XA, 1XSS; 2xGW		24;24;24	
Coat (Wet –DFT 375μm two pack epoxy plus 40μm re-	1XA, 1XSS, 1xGW		80;80;80	
coatable poly-urethane; dry - DFT 250µm two pack				
epoxy plus top coat of 125μm Multi-purpose epoxy)				
Replace seals	1XPM,1XA,2XGW		4;4;4	
Replace lashing strips with stainless steel lashing strips (coat with epoxy)	1XPM,1XA,2XGW		4;4;4	
Replace all bolts with stainless steel bolts (coat with epoxy)	1XPM,1XA,2XGW		4;4;4	
Assemble	1XPM,1XA,2XGW		4;4;4	
Test and Commission	1XPM,1XA,2XGW		8;8;8	
Test report	1XPM		4	
Report and submit completed quality control sheets	1XPM		2	
Living out allowance	1XA,1XSS, 2XGW		19 Days	
Living out allowance	1xPM		2 Days	
Cost of equipment to perform scope of work				
Trans III and Care			Total	
Travelling time Travelling to site and back for pre-quotation inspection	1XPM.1XSA			
Travelling to site and back for pre-quotation inspection  Travelling to site to do work on site	1XA,1XSS, 2XGW			
Travelling to site to do work on site  Travelling to site and back to do inspection	1XPM			
Travelling to site for pre-commissioning inspection	1XPM			
Travelling time (trip from site)	1XA,1XSS, 2XGW			
Travel to site and back for assembly, test and commission	,, -			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (exc	l. VAT)	ĺ

Transport cost for item 8.7

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Boskop Dam**.

Transport cost for item 8.7 (continues)

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT	
	TOTAL TRAN	ISPORT COST		

# 8.8 SCREENS (FIKA PATSO DAM)

(Trash Racks, Anodised Aluminium) Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK PER SCREEN	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		12	
Remove	1XA, 2xGW		3;3	
Dismantle	1XA, 1XGW		24;24	
Clean	2XGW		16	
Inspect	1XA; 1XSS		2; 3	
Report, prepare quality control plans, finalising scope of work	1XPM; 1XSO		3	
Repair	1XA		24	
Corrosion protect	1XSS		24	
Assemble	1XA		24	
Test reports	1XSS		1	
Install, test and commission	1XSS, 1XA, 2xGW		5;5;5	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work			•	
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection	1XPM,1XA; 1XSS			
Travelling to site and back to remove the equipment	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XA, 2XGW			
Transport of the equipment to site after refurbishment	1XA, 2XGW			
Travelling to site and back by to install, test and commission	1XPM, 1XSS, 1XA, 2XGW			
- Commission	27.044		Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (excl.	VAT)	

#### Transport cost for item 8.8

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Fika Patso Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT	
TOTAL TRANSPORT COST				

# 8.9 CREST GATES (VAAL DAM)

# (Flood Control, Radial Type, 12m x 12 m, Mild Steel)

**Total Distance** km (1 trip to site & back)

	Total Distance	NIII	(1 trip to sit	e & Dack)
SCOPE OF WORK PER CREST GATE	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		6	
Inspect/Evaluate	1XPM,1XA		8;8	
Report, prepare quality control plans, finalising scope of	1XPM;1XSO		3:3	
work	,		-,-	
Blast	1XA,2XSS,4XGW		80:120:12	
Diast	174,2733,476		0,120,12	
Clean	1XA,4XGW		16:16	
Application of protective coating (per coat)	1XA,2XSS,4XGW		36;120;12	
,			0	
Replace seals	1XPM,2XA,4XGW		2;8;8	
Replace lashing strips with stainless steel lashing strips (coat )	1XPM,2XA,4XGW		2;8;8	
Replace all fasteners with stainless steel fasteners (coat)	1XPM,2XA,4XGW		2;8;8	
Test report	1XPM; 2xA		5; 3	
Living out allowance	1XPM; 2XA; 2XSS;		2; 18; 27;	
	4XGW		30	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
· · · · · · · · · · · · · · · · · · ·			Total	
Travelling Time				
Travelling time (1 trip to site and back) pre-quotation	1XPM			
Travelling time (2 trips to site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (2 trips from site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (one trip to site and back) commissioning	1XPM			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (excl. VA	\T)	

Transport cost for item 8.9
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.
The equipment is located at Vaal Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSP	ORT COST	

#### 8.10 **ACTUATOR AT BOSKOP DAM (SERVICE)**

(200-9000Nm, SA 100 E, 180 l/min)

**Total Distance** km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		8;8	
Remove	1XA		1	
Dismantle	1XA		5	
Clean	2XGW		1	
Inspect	1XSS		1	
Report	1XSS		0.2	
Reassemble	1XA		5	
Re-connect wiring	1SS		2	
Reset limits/calibrate	1XSS,1XA		1.5;1.5	
Coat	1XSS		1	
Test certificate	1XSS		1	
Commission	1XA		2	
Cost of equipment to perform scope of work			•	
· · · · · · · · · · · · · · · · · · ·			Total	
Travelling				
Travelling time (1 trip to site and back) to disconnect and remove equipment	1XA			
Transport of the equipment to your works for refurbishment				
Transport of the equipment to site after refurbishment				
Travelling time (1 trip to site and back) to install equipment test and commission	1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL /	excl. VAT)	1

Transport cost for item 8.10
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Boskop Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TR	RANSPORT COST	

#### 8.11 **ACTUATOR AT FIKA PATSO DAM (SERVICE)**

(25kNm, 16 AD, 48 u/min) Total Distance km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		8;8	
Remove	1XA		1	
Dismantle	1XA		5	
Clean	2XGW		1	
Inspect	1XSS		1	
Report	1XSS		0.2	
Reassemble	1XA		5	
Re-connect wiring	1SS		2	
Reset limits/calibrate	1XSS,1XA		1.5;1.5	
Coat	1XSS		1	
Test certificate	1XSS		0.2	
Commission	1XA		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time	43/4			
Travelling time (1 trip to site and back) to disconnect and remove equipment	1XA			
Transport of the equipment to your works for refurbishment				
Transport of the equipment to site after refurbishment				
Travelling time (1 trip to site and back) to install equipment test and commission	1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
•			Total	
		TOTAL (excl	VAT)	

Transport cost for item 8.11
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Fika Patso Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### 8.12 ELECTRIC MOTOR REFURBISHMENT (VAAL DAM)

(Squirrel cage, induction, star coupled, direct on line, 1650kW, 6.6 kV, 186 a, 988 rev/min, 50 Hz)

Total Distance km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		8	
Efficiency test and report	1xT,1xGW		8;8	
Uncouple and loosen all pipework	1xA,1XSS		5;5	
Remove Motor	1XA,1XSS		12;6	
Dismantle	1XA,1XSS		4;8	
Clean	1XSS		4	
Inspect	1XT,1XA		1;3	
Report, prepare quality control plans, finalising scope	1XPM		3	
of work				
Clean all cooling water pipes and systems	1XGW		4	
Rewind stator to acceptable standards	1XA,1XSS		45;70	
Check temp. sensors, replace faulty ones and ensure 2 per phase.	1XA,1XSS		3;5	
Check motor heaters	1XA		1	
Vacuum pressure impregnate	1XA		3	
Repair/replace defective rotor bars	1XA,1XSS		45;45	
Re-metal white metal bearings (DE + NDE)				
Repair shaft journals				
Balance rotor	1XA		6	
Assemble motor	1XA,1XSS		10;10	
Test run motor	1XT		6	
Test report	1XT		1	
Condition of plant report (To be included in pump condition of plant report)	1XT		5	
Install	1XA,1XSS		6;6	
Reconnect	1XT,1XA,1XSS		2;4;4	
Align (Laser)	1XT,1XSS		3;3	
Test run	1XT		5	
Commission	1XT		2	
Efficiency test and report	1xT.1xGW		8;8	
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (1 trip to site and back)	1xT,1xGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
Travelling time (1 trip to site and back)	1xT.1xGW			
·			Total	

#### Transport cost for item 8.12

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at Vaal Dam.
- Travelling to site and back by 1xT, 1xGW for the efficiency testing prior to refurbishment.
- Travelling to site and back by 1xA, 1xSS to disconnect and remove the equipment.
- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to and back site, two trips, by 1XT, 1XA, 1XSS to install, reconnect, align equipment and commission.

Travelling to site and back by 1xT, 1xGW for the efficiency testing after refurbishment.

#### Transport cost for item 8.12 (continues)

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	RT COST	

#### 8.13 SWITCHGEAR AND CAPACITORS SERVICING PER PUMP SET (FIKA PATSO PUMP STATION)

(Medium Voltage, 6.6 kV, 1250 A, 10 MVA): Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM;1XSO		2;2	
Travelling time (one trip to site)	1XSA,1XA,1XSS,			
Cleaning of all switchgear units' components and capacitors (Internal and external)	1XA,1XSS		3;5	
Checking of all termination's	1XA		2	
Tightening of all loose contacts	1XSS		2	
Testing of all relevant instrumentation, relays, contactors, protection etc.	1XSA		6	
Detailed report for each individual switchgear and capacitor unit	1XSA		2	
Identification of obsolete switchgear	1XSA		1	
Detailed report of obsolete switchgear	1XSA		1	
Travelling time (one trip from site)	1XSA,1XA,1XSS,			
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (1 trip to site and back)	1xT,1xGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
			Total	
		TOTAL (excl.	VAT)	

Transport cost for item 8.13
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at Fika Patso Pump Station.
- Travelling to site by 1XSA, 1xA, 1xSS.
- Travelling from site by 1XSA, 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

# 8.14 SWITCHGEAR SERVICING (BOSKOP DAM)

(Low Voltage, 400 V) Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM;1XSO		2;2	
Cleaning of all switchboard units (Internal & external)	1XA,1XSS		1;1	
Checking of all termination's	1XA		1/2	
Tightening of all loose contacts	1XSS		2	
Testing of all relevant instrumentation, contactors, relays, etc.	1XA		4	
Detailed report for each individual switchgear unit	1XA		1	
Identification of obsolete switchgear	1XA		1	
Detailed reports of obsolete switchgear	1XA		1/2	
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (to site)	1XA,1XSS			
Travelling time (from site)	1XA,1XSS			
			Total	
		TOTAL (excl. V	AT)	

#### Transport cost for item 8.14

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at Boskop Dam.
- Travelling to site by 1xA, 1xSS.
- Travelling from site by 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

#### 8.15 TRANSFORMERS REFURBISHMENT (FIKA PATSO DAM)

(250 kVA, 6600/400 V, 3 Phase, 50 Hz): Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		4	
Uncouple and loosen termination's	1XA, 2xSS		1;1	
Remove	1XA, 2xSS		3;3	
Test oil and forward detailed report	1XA		1	
Dismantle	1XA,1XSS		4;4	
Clean	1XSS		2	
Inspect	1XA		2	
Report, prepare quality control plans, finalising scope of work	1XPM;1XSO		3;3	
Rewind	1XA,1XSS		20;20	
Assemble	1XA,1XSS		15;15	
Replace oil with new oil	1XSS		2	
Replace all gaskets	1XSS		2	
Appropriate tests	1XT		1	
Test reports	1XT		1	
Install	1XA		5	
Reconnect	1XA		3	
Commission	1XT		1	
Cost of equipment to perform scope of work			•	
· · · · ·			Total	
Travelling				
Travelling time (to site and back)	1XA, 2xSS			
Travelling time (to site and back)	1XT,1XA			
			Total	
		TOTAL (excl.	VAT)	

# Transport cost for item 8.15

The transport on the item will be calculated on the following criteria:

- The equipment is located at Fika Patso dam.
- Travelling to site and back by 1XA, 2xSS to disconnect and remove the equipment.
- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to site and back by 1XT,1XA to install, reconnect test and commission.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT	
TOTAL TRANSPORT COST				

#### **CENTRAL OPERATIONS USUTU RIVER AREA** 9

#### 9.1 **NEEDLE VALVE AT NOOITGEDAGT DAM**

(DN 800/700, 25 Bar, with hydraulic damping system gearbox and electric actuator)

Total Distance km (1 trip to site & back)

1 PM	1		
I F IVI		6	
1XA, 2XGW		5;5	
1XA, 2XGW		5;15	
1XSS, 1XGW		5;3	
1XSA, 1XA		2;4	
1XPM;1XSO		3;3	
1XS,1XA, 2XGW		1;2;2	
2XSS		16	
1XA,1XSS		6;16	
1XA,1XSS		2;16	
1XA, 1XGW		5;1	
1XA		2	
1XA, 2XGW		10;15	
1XS,1XA, 2XGW		1;4;4	
1XSA		1	
1XA, 2XGW		8;8	
1XSA ; 1XA		5; <b>5</b>	
1XPM		2	
		Total	
1XPM, 1XA, 2XGW			
1XA, 2XGW			
1XSS, 1XA			
1XSS, 1XA			
1XA, 2XGW			
1XSA, 1XA			
1XPM,1XSA, 1XA			
		Total	
Cost	LOA with- out Meals	LOA with Meals	Total
		Total	
	1XSS, 1XGW 1XSA, 1XA 1XPM;1XSO 1XS,1XA, 2XGW 2XSS 1XA,1XSS 1XA,1XSS 1XA,1XSS 1XA, 1XGW 1XA 1XA, 2XGW 1XSA 1XA, 2XGW 1XSA; 1XA 1XPM 1XPM, 1XA, 2XGW 1XSS, 1XA	1XSS, 1XGW 1XSA, 1XA 1XPM;1XSO 1XS,1XA, 2XGW 2XSS 1XA,1XSS 1XA,1XSS 1XA,1XSS 1XA, 1XGW 1XA 1XA, 2XGW 1XSA 1XA, 2XGW 1XSA 1XA, 2XGW 1XSA; 1XA 1XPM 1XPM, 1XA, 2XGW 1XSS, 1XA 1XSS, 1XA 1XSS, 1XA 1XSS, 1XA 1XSS, 1XA 1XSS, 1XA 1XSA, 1XA 1XPM,1XSA, 1XA 1XPM,1XSA, 1XA 1XPM,1XSA, 1XA 1XPM,1XSA, 1XA	1XSS, 1XGW       5;3         1XSA, 1XA       2;4         1XPM;1XSO       3;3         1XS,1XA, 2XGW       1;2;2         2XSS       16         1XA,1XSS       6;16         1XA,1XSS       2;16         1XA, 1XGW       5;1         1XA       2         1XA, 2XGW       10;15         1XS,1XA, 2XGW       1;4;4         1XA, 2XGW       8;8         1XSA; 1XA       5;5         1XPM       2         Total         1XPM, 1XA, 2XGW         1XS, 1XA       1XS, 1XA         1XS, 1XA       1XS, 1XA         1XS, 1XA       1XS, 1XA         1XSA, 1XA       1XPM,1XSA, 1XA         Cost       LOA without Meals         LOA with Meals       LOA with

# Transport cost for item 9.1

For adjudication purposes the transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used. The equipment is located at Nooitgedacht Dam

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### 9.2 SPHERICAL VALVE AT HEYSHOPE DAM

(DN 1000, 2,5 MPa, with gearbox and electric/hydraulic actuator)

Total Distance\_ km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		4	
Disconnect and Remove	1XA, 2XGW		8;8	
Dismantle	1XA, 2XGW		12;12	
Rough blast and clean	1XSS, 1XGW		6;3	
Inspect	1XPM,1XSA,1XA		2;2;4	
Report, prepare quality control plans, finalising scope of work	1XPM;1XSO		3;3	
Pressure Test	1XSA,1XA, 2XGW		1;2;2	
Fettling to specification	2XSS		16	
Final blast to SA 3	1XA,1XSS		6;16	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		3;18	
Reassemble & Inspection	1XPM, 1XS,1XA, 2XGW		2; 2;16;16	
Pressure Test	1XPM; 1XSA,1XA, 2XGW		1; 1;4;4	
Pressure test certificate	1XSA		1	
Install	1XA,2XGW		8;8	
Commission	1XSA,1XA		5;5	
Report and submit quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection	1X PM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1xA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back by to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XS;1XA			
Travel to site and back by to test and commission	1XPM, 1XS and 1xA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT) Departmental				
рераниента			Total	
		TOTAL (excl.		

#### Transport cost for item 9.2

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Heyshope Dam**.

TYPE OF VEHICLE (ENGIN CAPACITY)	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
Mobilisation/Demobilisation (Contractors Mobile)			

#### 9.3 BUTTERFLY VALVE AT JERICHO DAM

(DN 2000, with drop weight hydraulic / actuator)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL	RATE	NO OF	TOTAL
	OF MANPOWER		HOURS	
General project management	1 PM		6	
Disconnect and remove	1xA, 2XGW		8;8	
Dismantle	1xA, 2XGW		9;9	
Rough blast and clean	1XSS, 1XGW		4;4	
Inspect	1XS,1XA		2;2	
Report, prepare quality control plans, finalising scope of work	1XPM;1XSO		3;3	
Pressure test body	1XPM;1XSA, 1XA, 2XGW		1;1;3;3	
Fettling to specification	2XSS		10	
Manufacture and fit new stainless steel body seat	1XA,1XSS		9;3	
Manufacture new stainless steel clamp ring	1XA		6	
Manufacture new bushes	1XA		3	
Final blast to SA 3	1XA,1XSS		4;12	
Coat (Epoxy minimum DFT of 400µm internally and epoxy 250µm & polyurethane 40µm)	1XA,1XSS		2;14	
Reassemble	1xA, 2XGW		12;12	
Pressure Test	1XPM; 1XSA,1xA, 2XGW		1;1;4;4	
Pressure test certificate	1XSA		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		9;9	
Test & Commission	1XSA; 1XA		6;6	
Cost of equipment to perform scope of work				
Travelling Time			Total	
Travelling Time  Travelling to site and back for pre-quotation inspection.	4VDM 4VA 2VCM/			
Travelling to site and back to disconnect and remove the equipment	1XPM, 1XA, 2XGW 1xA, 2XGW			
Transport of the equipment to your works for refurbishment.	1XSS			
Transport of the equipment to site after refurbishment.	1XSS			
Travelling to site and back by to install equipment.	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XA, 2XGW			
Travel to site and back to test and commission	1XPM, 1XSA; 1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (excl. V	AT)	

#### Transport cost for item 9.3

The transport cost for item 9.3

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Jericho Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### 9.4 **SLEEVE VALVE AT NOOIGEDACHT DAM**

(DN 1000, with Electric/hydraulic actuator)

Total Distance km (1 trip to site & back)

	I otal Distance	·	trip to site 8	, , , , , , , , , , , , , , , , , , , ,
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM		4	
Dismantle and remove	1XA, 2XGW		9;9	
Dismantle	1XA, 2XGW		16;16	
Blast and clean	1XSS;1XGW		5;3	
Inspect	1XSA,1XA		1;3	
Report, prepare quality control plans, finalising scope of work	1XPM;1XSO		3;3	
Fettling to specification	2XSS		4	
Final blast to SA 3	1XA,1XSS		5;15	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1XA, 2XGW		9;9	
December Total	1XPM;1XSA,1XA,			
Pressure Test	2XGW		1;1;3;3	
Pressure test certificate	1XSA		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		14;14	
Test & Commission	1XSA, 1XA		4;4	
Cost of equipment to perform scope of work	17.67.4 17.0			
			Total	
Travelling Time		1	1	
Travelling to site and back for pre-quotation inspection.	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1xA and 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XS, 1XA			
Travel to site and back by to test and commission	1XPM, 1XSA, 1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA <b>with</b> Meals	Total
Guesthouse				
Contractors Mobile				
Departmental				
		TOTAL (excl.	Total	

Transport cost for item 9.4
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Nooitgedacht Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TR	ANSPORT COST	

#### 9.5 **PUMP AT HEYSHOPE DAM**

(Centrifugal, axial flow, horizontal split, single stage, double suction, 6600 kV; 6.6 MW, flow rate = 2000 l/s)

**Total Distance** km (1 trip to site & back)

	l otal Distance		trip to site &	
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		6	
Efficiency test and report	1xT;1xGW		8:8	
Uncouple coupling and loosen pipe work	1XA, 2XGW		4;4	
Remove pump	1XA, 2XGW		2;2	
Dismantle in Workshops	1XA, 2XGW		16:16	
Clean pump and piping	2XGW		8	
Inspect	1XSA		9	
Report, prepare quality control plans, finalising scope of work	1XPM:1XSO		3;3	
Final blast to SA 3	1XA,1XSS		9;18	
Coat (Epoxy minimum DFT of 400µm internally and epoxy	1XA,1XSS		9:36	
250µm & polyurethane 40µm)	1701,1700		0,00	
Replace shaft with new Stainless Steel shaft	1767 1767		4;4	
	1XSA,1XGW			
Replace impeller with new Stainless Steel impeller	1XSA,1XGW		4;4	
Replace all brass sleeves with new brass sleeves Replace existing neck rings with two new stainless steel	1XSA,1XGW 1XSA,1XGW		6;6 8;8	
neck rings (include. New stainless steel bolts)	·		0,0	
Replace existing wearing rings with two new Brass wearing rings (include. New brass bolts)	1XSA,1XGW		8;8	
Replace packings	1XSA,1XGW		6;6	
Fit parts and reassemble pump	1XSA,1XGW		8;8	
Coat pump externally to colour code	1XSS		6	
Supply test report	1XSA		4	
Supply condition of plant report on all work done (Complete including motor repair report) and completed quality control report	1XT		6	
Install pump (new packing material)	1XSA, 2XGW		8;8	
Align with laser	1XSA,2XGW		4;4	
Re-couple	1XSA,2XGW		3;3	
Connect pipework	1XSA,2XGW		5;5	
Test run	1XPM;1XSA, 2xGW		2;5;5	
Efficiency test and report	1xT, 1xGW		8;8	
Commission	1XS,1XSA		3;3	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for the efficiency testing prior to refurbishment	1xT;1xGW			
Travelling to site and back to disconnect and remove the equipment	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSA, 2XGW			
Transport of the equipment to site after refurbishment	1XSA, 2XGW			
Travelling to site and back to install equipment and laser align	1XSA, 2xGW			
Travelling to site and back for the efficiency testing after to refurbishment	1xT, 1xGW			
Travel to site and back by to laser align, test and commission	1XPM, 1XSS, 1xSA			
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
			Total	
		TOTAL (excl. VAT)		

Transport cost for item 9.5
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Heyshope Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

## 9.6 CRANE AT JERICHO DAM (SERVICE AND SPECIFY REPAIRS)

(53 Ton Portal Crane, with 2 auxiliary 7,5 ton winches)

**Total Distance** km (1 trip to site & back) SCOPE OF WORK **SPECIFY RATE** OF **TOTAL LEVEL OF HOURS MANPOWER** General project management 1 PM 5 Inspection and testing Mechanical 1XSA 3 Electrical Report, prepare quality control plans, finalising scope of work 1XPM;1XSO 3;3 Complete service Clean Lubricate 1XSA,2XSS 9;9 Inspect Safety system components and settings and adjust where required. Inspect and adjust braking systems. Replace break shoes 1XSA,2XSS 8;8 Replace rope with new HDG wire rope and set limits. 1XSA,2XSS 36;36 Load test 1XSA,2XSS 8;8 1XSA Test reports 1XSA,2XSS Living out allowance 8 Days Cost of equipment to perform scope of work Total Travelling Time

TOTAL (excl. VAT)

LOA without

Meals

Total

Meals

Total

LOA with

Total

## Transport cost for item 9.6

Accommodation

Guesthouse Contractors Mobile Departmental

Travelling to site and back for pre-quotation inspection

Travelling to site and back with load test equipment and test.

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

1XPM, 1XSA,2XSS 1XSA, 2xSS

Cost

• The equipment is located at Jericho Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

## 9.7 STOP LOGS AT NOOITGEDAGCHT DAM

(12m x 3 m, Mild Steel) Total Distance km (1 trip to site & back)

(12m x 3 m, Mild Steel) Total Distan		_km (1 trip to		
SCOPE OF WORK PER STOP LOG	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM		16	
Dismantle	1XA,1xSS, 2XGW		16;16;16	
Rough blast and clean	1XA, 1XSS, 1 x GW		16;16;16	
Inspect	1XM,1XA		2;6	
Report, prepare quality control plans, finalising scope of work	1XPM;1XSO		3;3	
Final blast to SA 3	1XA, 1XSS; 2xGW		24;24;24	
Coat (Wet –DFT 375μm two pack epoxy plus 40μm recoatable poly-urethane; dry – DFT 250μm two pack epoxy plus top coat of 125μm Multi-purpose epoxy)	1XA, 1XSS, 1xGW		80;80;80	
Replace seals	1XPM,1XA,2XGW		4;4;4	
Replace lashing strips with stainless steel lashing strips (coat with epoxy)	1XPM,1XA,2XGW		4;4;4	
Replace all bolts with stainless steel bolts (coat with epoxy)	1XPM,1XA,2XGW		4;4;4	
Assemble	1XPM,1XA,2XGW		4;4;4	
Test and Commission	1XPM,1XA,2XGW		8;8;8	
Test report	1XPM		4	
Report and submit completed quality control sheets	1XPM		2	
Living out allowance	1XA,1XSS, 2XGW		19 Days	
Living out allowance	1XPM		2 Days	
Cost of equipment to perform scope of work			*	
			Total	
<u>Travelling time</u>				
Travelling to site and back for pre-quotation inspection	1XPM,1XSA			
Travelling to site to do work on site	1XA,1XSS, 2XGW			
Travelling to site and back to do inspection	1xPM			
Travelling to site for pre-commissioning inspection	1XPM			
Travelling time (trip from site)	1XA,1XSS, 2XGW			
Travel to site and back for assembly, test and commission				
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (exc	I. VAT)	

# Transport cost for item 9.7

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Nooitgedacht Dam.

Transport cost for item 9.7 (continues)

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TR	ANSPORT COST	

#### 9.8 **SCREENS (JERICHO DAM)**

(Trash Racks, Anodised Aluminium) Total Distance \_km (1 trip to site & back)

SCOPE OF WORK PER SCREEN	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		12	
Remove	1XA, 2xGW		3;3	
Dismantle	1XA, 1XGW		24;24	
Clean	2XGW		16	
Inspect	1XA; 1XSS		2; 3	
Report, prepare quality control plans, finalising scope of work	1XPM;1XSO		3;3	
Repair	1XA		24	
Corrosion protect	1XSS		24	
Assemble	1XA		24	
Test reports	1XSS		1	
Install, test and commission	1XSS, 1XA, 2xGW		5;5;5	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
Travelling Time			Total	
Travelling to site and back for pre-quotation inspection	1XPM,1XA; 1XSS			
Travelling to site and back to remove the equipment	1xA, 2xGW			
Transport of the equipment to your works for refurbishment	1xA, 2xGW			
Transport of the equipment to site after refurbishment	1xA, 2xGW			
Travelling to site and back by to install, test and commission	1XPM, 1XSS, 1XA, 2xGW			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (exc	I. VAT)	

# Transport cost for item 9.8

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Jericho Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### 9.9 **CREST GATES (HEYSHOPE DAM)**

(Flood Control, Radial Type, 12m x 12 m, Mild Steel)

km (1 trip to site & back)

General project management Inspect/Evaluate Report, prepare quality control plans, finalising scope of work Blast Clean Application of protective coating (per coat) Replace seals	SPECIFY LEVEL OF MANPOWER  1 PM 1XPM,1XA 1XPM;1XSO  1XA,2XSS,4XGW 1XA,4XGW 1XA,2XSS,4XGW 1XPM,2XA,4XGW 1XPM,2XA,4XGW	RATE	NO OF HOURS  6 8;8 3;3  80;120;120 16;16 36;120;120 2;8;8 2;8;8	TOTAL
Inspect/Evaluate Report, prepare quality control plans, finalising scope of work Blast Clean Application of protective coating (per coat)	1XPM,1XA 1XPM;1XSO 1XA,2XSS,4XGW 1XA,4XGW 1XA,2XSS,4XGW 1XPM,2XA,4XGW 1XPM,2XA,4XGW		8;8 3;3 80;120;120 16;16 36;120;120 2;8;8	
Report, prepare quality control plans, finalising scope of work Blast Clean Application of protective coating (per coat)	1XPM;1XSO 1XA,2XSS,4XGW 1XA,4XGW 1XA,2XSS,4XGW 1XPM,2XA,4XGW 1XPM,2XA,4XGW		3;3 80;120;120 16;16 36;120;120 2;8;8	
work Blast Clean Application of protective coating (per coat)	1XA,2XSS,4XGW 1XA,4XGW 1XA,2XSS,4XGW 1XPM,2XA,4XGW 1XPM,2XA,4XGW		80;120;120 16;16 36;120;120 2;8;8	
Blast Clean Application of protective coating (per coat)	1XA,4XGW 1XA,2XSS,4XGW 1XPM,2XA,4XGW 1XPM,2XA,4XGW		16;16 36;120;120 2;8;8	
Blast Clean Application of protective coating (per coat)	1XA,4XGW 1XA,2XSS,4XGW 1XPM,2XA,4XGW 1XPM,2XA,4XGW		16;16 36;120;120 2;8;8	
Application of protective coating (per coat)	1XA,4XGW 1XA,2XSS,4XGW 1XPM,2XA,4XGW 1XPM,2XA,4XGW		16;16 36;120;120 2;8;8	
	1XPM,2XA,4XGW 1XPM,2XA,4XGW		2;8;8	
	1XPM,2XA,4XGW 1XPM,2XA,4XGW		2;8;8	
	, ,		2;8;8	
Replace lashing strips with stainless steel lashing strips (coat )				
Replace all fasteners with stainless steel fasteners (coat)	1XPM,2XA,4XGW		2;8;8	
Test report	1XPM; 2xA		5; 3	
Living out allowance	1XPM; 2XA; 2XSS;		2; 18; 27; 30	
3	4XGW		, , , , , , , ,	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work			•	
			Total	
Travelling Time				
Travelling time (1 trip to site and back) pre-quotation	1XPM			
Travelling time (2 trips to site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (2 trips from site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (one trip to site and back) commissioning	1XPM			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
_ •			Total	
	•	TOTAL (e	ycl VAT)	

Transport cost for item 9.9
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Heyshope Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

## 9.10 ACTUATOR AT JERICHO DAM (SERVICE)

(200-9000Nm, SA 100 E, 180 I/min)

Total Distance km (1 trip to site & back) **SCOPE OF WORK** SPECIFY LEVEL **RATE** NO OF **TOTAL OF MANPOWER HOURS** General project management 1XPM;1XSO 8;8 Remove 1XA Dismantle 1XA 5 Clean 2XGW 1 Inspect 1XSS 1 Report 1XSS 0.2 Reassemble 1XA 5 Re-connect wiring 2 1SS Reset limits/calibrate 1XSS,1XA 1.5;1.5 1XSS Coat 1 Test certificate 1XSS 1 1XA 2 Commission Cost of equipment to perform scope of work Total Travelling time (1 trip to site and back) to disconnect and 1XA remove equipment Transport of the equipment to your works for refurbishment Transport of the equipment to site after refurbishment 1XA Travelling time (1 trip to site and back) to install equipment test and commission Total Accommodation Cost LOA LOA with without Meals Meals Guesthouse Contractors Mobile (-200 CREDIT) Departmental

## Transport cost for item 9.10

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

Total

TOTAL (excl. VAT)

The equipment is located at Jericho dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	ORT COST	

# 9.11 ACTUATOR AT NOOITGEDACHT DAM (SERVICE)

(25kNm. 16 AD. 48 u/min) **Total Distance** km (1 trip to site & back)

(25kNm, 16 AD, 48 u/min) Total Dis		_km (1 trip to s		
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM;1XSO		8;8	
Remove	1XA		1	
Dismantle	1XA		5	
Clean	2XGW		1	
Inspect	1XSS		1	
Report	1XSS		0.2	
Reassemble	1XA		5	
Re-connect wiring	1SS		2	
Reset limits/calibrate	1XSS,1XA		1.5;1.5	
Coat	1XSS		1	
Test certificate	1XSS		0.2	
Commission	1XA		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling time (1 trip to site and back) to disconnect and remove equipment	1XA			
Transport of the equipment to your works for refurbishment				
Transport of the equipment to site after refurbishment				
Travelling time (1 trip to site and back) to install equipment	1XA			
test and commission				
1.0		101 11	Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (excl	. VAT)	

Transport cost for item 9.11
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Nooitgedacht Dam.

TYPE OF VEHICLE	RATE	/ KM	TOTAL DISTANCE	TOTAL AMOUNT
		TOTAL TRANSPO	RT COST	

## 9.12 ELECTRIC MOTOR REFURBISHMENT (HEYHOPE DAM)

(Squirrel cage, induction, star coupled, direct on line,1650kW, 6.6 kV, 186 a, 988 rev/min, 50 Hz)

Total Distance km (1 trip to site & back)

	l otal Distanc	e		site & back)
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		8;8	
Efficiency test and report	1XT,1XGW		8;8	
Uncouple and loosen all pipework	1XA,1XSS		5;5	
Remove Motor	1XA,1XSS		12;6	
Dismantle	1XA,1XSS		4;8	
Clean	1XSS		4	
Inspect	1XT,1XA		1;3	
Report, prepare quality control plans, finalising scope of	1XPM		3	
work				
Clean all cooling water pipes and systems	1XGW		4	
Rewind stator to acceptable standards	1XA,1XSS		45;70	
Check temp. sensors, replace faulty ones and ensure 2 per phase.	1XA,1XSS		3;5	
Check motor heaters	1XA		1	
Vacuum pressure impregnate	1XA		3	
Repair/replace defective rotor bars	1XA,1XSS		45;45	
Re-metal white metal bearings (DE + NDE)				
Repair shaft journals				
Balance rotor	1XA		6	
Assemble motor	1XA,1XSS		10;10	
Test run motor	1XT		6	
Test report	1XT		1	
Condition of plant report (To be included in pump condition of plant report)	1XT		5	
Install	1XA,1XSS		6;6	
Reconnect	1XT,1XA,1XSS		2;4;4	
Align (Laser)	1XT,1XSS		3;3	
Test run	1XT		5	
Commission	1XT		2	
Efficiency test and report	1xT.1xGW		8;8	
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (1 trip to site and back)	1xT,1xGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
Travelling time (1 trip to site and back)	1xT.1xGW			
			Total	
		TOTAL (excl. V	AT)	

# Transport cost for item 9.12

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at **Heyhope Dam**.
- Travelling to site and back by 1xT, 1xGW for the efficiency testing prior to refurbishment.
- Travelling to site and back by 1xA, 1xSS to disconnect and remove the equipment.
- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to and back site, two trips, by 1XT, 1XA, 1XSS to install, reconnect, align equipment and commission.

Travelling to site and back by 1xT, 1xGW for the efficiency testing after refurbishment.

# Transport cost for item 9.12 (continues)

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	RT COST	

# 9.13 SWITCHGEAR AND CAPACITORS SERVICING PER PUMP SET (JERICHO DAM)

(Medium Voltage, 6.6 kV, 1250 A, 10 MVA)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM;1XSO		2;2	
Travelling time (one trip to site)	1XSA,1XA,1XSS,			
Cleaning of all switchgear units' components and capacitors (Internal and external)	1XA,1XSS		3;5	
Checking of all termination's	1XA		2	
Tightening of all loose contacts	1XSS		2	
Testing of all relevant instrumentation, relays, contactors, protection etc.	1XSA		6	
Detailed report for each individual switchgear and capacitor unit	1XSA		2	
Identification of obsolete switchgear	1XSA		1	
Detailed report of obsolete switchgear	1XSA		1	
Travelling time (one trip from site)	1XSA,1XA,1XSS,			
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (1 trip to site and back)	1XT,1XGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
			Total	
		TOTAL (excl. V	AT)	

## Transport cost for item 9.13

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at Jericho Dam.
- Travelling to site by 1XSA, 1xA, 1xSS.
- Travelling from site by 1XSA, 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### 9.14 SWITCHGEAR SERVICING (NOOITGEDACHT DAM)

(Low Voltage, 400 V) Total Distance km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		2;2	
Cleaning of all switchboard units (Internal & external)	1XA,1XSS		1;1	
Checking of all termination's	1XA		1/2	
Tightening of all loose contacts	1XSS		2	
Testing of all relevant instrumentation, contactors, relays, etc.	1XA		4	
Detailed report for each individual switchgear unit	1XA		1	
Identification of obsolete switchgear	1XA		1	
Detailed reports of obsolete switchgear	1XA		1/2	
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (to site)	1XA,1XSS			
Travelling time (from site)	1XA,1XSS			
			Total	
		TOTAL (excl.	VAT)	

## Transport cost for item 9.14

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Nooitgedacht Dam.

- Travelling to site by 1xA, 1xSS.
- Travelling from site by 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

# 9.15 TRANSFORMERS REFURBISHMENT (HEYSHOPE DAM)

(250 kVA, 6600/400 V, 3 Phase, 50 Hz)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		4	
Uncouple and loosen termination's	1XA, 2xSS		1;1	
Remove	1XA, 2xSS		3;3	
Test oil and forward detailed report	1XA		1	
Dismantle	1XA,1XSS		4;4	
Clean	1XSS		2	
Inspect	1XA		2	
Report, prepare quality control plans, finalising scope of	1XPM;1XSO		3;3	
work			22.00	
Rewind	1XA,1XSS		20;20	
Assemble	1XA,1XSS		15;15	
Replace oil with new oil	1XSS		2	
Replace all gaskets	1XSS		2	
Appropriate tests	1XT		1	
Test reports	1XT		1	
Install	1XA		5	
Reconnect	1XA		3	
Commission	1XT		1	
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (to site and back)	1XA, 2xSS			
Travelling time (to site and back)	1XT,1XA			
			Total	

TOTAL (excl. VAT)

# Transport cost for item 9.15

The transport on the item will be calculated on the following criteria:

- The equipment is located at Heyshope Dam.
- Travelling to site and back by 1XA, 2XSS to disconnect and remove the equipment.
- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to site and back by 1XT, 1XA to install, reconnect test and commission.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRAN	NSPORT COST	

#### **CENTRAL OPERATIONS USUTU VAAL AREA** 10

#### 10.1 **NEEDLE VALVE AT GROOTDRAAI DAM**

(DN 800/700, 25 Bar, with hydraulic damping system gearbox and electric actuator)

Total Distance km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL	RATE	NO OF	TOTAL
	OF MANPOWER		HOURS	
Project management	1XPM;1XSO		6	
Disconnect and Remove	1XA, 2XGW		5;5	
Dismantle	1XA, 2XGW		5;15	
Rough blast and clean	1XSS, 1XGW		5;3	
Inspect	1XSA, 1XA		2;4	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Pressure test body	1XSA,1XA, 2XGW		1;2;2	
Fettling to specification	2XSS		16	
Final blast to SA 3	1XA,1XSS		6;16	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;16	
Polish of plunger	1XA, 1XGW		5;1	
Manufacture of crank and connecting rod bushes	1XA		2	
Reassemble	1XA, 2XGW		10;15	
Pressure test	1XS,1XA, 2XGW		1;4;4	
Pressure test certificate	1XSA		1	
Install	1XA, 2XGW		8;8	
Testing and Commission	1XS ; 1XA		5; <b>5</b>	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment.	1xA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSS, 1XA			
Transport of the equipment to site after refurbishment	1XSS, 1XA			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XSA, 1xA			
Travel to site and back to test and commission	1XPM,1XSA, 1xA			
			Total	
Accommodation	Cost	LOA with- out Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
Departmental				

Transport cost for item 10.1
For adjudication purposes the transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Grootdraai Dam

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

## 10.2 SPHERICAL VALVE AT VRESAP PUMP STATION

(DN 1000, 2,5 MPa, with gearbox and electric/hydraulic actuator)

Total Distance\_\_\_\_km (1 trip to site & back)

OF WORK SPECIFY LEVEL OF RATE NO OF TOTAL

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		4;4	
Disconnect and Remove	1XA, 2XGW		8;8	
Dismantle	1XA, 2XGW		12;12	
Rough blast and clean	1XSS, 1XGW		6;3	
Inspect	1XPM,1XSA,1XA		2;2;4	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Pressure Test	1XSA,1XA, 2XGW		1;2;2	
Fettling to specification	2XSS		16	
Final blast to SA 3	1XA,1XSS		6;16	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		3;18	
Reassemble & Inspection	1XPM, 1XSA, 1XA, 2XGW		2; 2;16;16	
Pressure Test	1XPM; 1XSA,1XA, 2XGW		1; 1;4;4	
Pressure test certificate	1XSA		1	
Install	1XA,2XGW		8;8	
Commission	1XSA,1XA		5;5	
Report and submit quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection	1X PM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1xA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back by to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XSA;1XA			
Travel to site and back by to test and commission	1XPM, 1XSA and 1xA	_		
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT) Departmental				
Бераниненца			Total	
		TOTAL (excl.		

TOTAL (excl. VAT)

# Transport cost for item 10.2

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Vresap Pump Station.

TYPE OF VEHICLE (ENGIN CAPACITY)	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
Mobilisation/Demobilisation (Contractors Mobile)			
	TOTAL T	RANSPORT COST	

#### 10.3 **BUTTERFLY VALVE AT ZAAIHOEK DAM**

(DN 2000, with drop weight hydraulic / actuator)

Total Distance km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF	RATE	NO OF	TOTAL
	MANPOWER		HOURS	
General project management	1XPM;1XSO		6;6	
Disconnect and remove	1XA, 2XGW		8;8	
Dismantle	1XA, 2XGW		9;9	
Rough blast and clean	1XSS, 1XGW		4;4	
Inspect	1XS,1XA		2;2	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Pressure test body	1XPM;1XS, 1XA, 2XGW		1;1;3;3	
Fettling to specification	2XSS		10	
Manufacture and fit new stainless steel body seat	1XA,1XSS		9;3	
Manufacture new stainless steel clamp ring	1XA		6	
Manufacture new bushes	1XA		3	
Final blast to SA 3	1XA,1XSS		4;12	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1xA, 2XGW		12;12	
Pressure Test	1XPM; 1XS,1xA, 2XGW		1;1;4;4	
Pressure test certificate	1XSA		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		9;9	
Test & Commission	1XSA; 1XA		6;6	
Cost of equipment to perform scope of work	·			
·			Total	
Travelling Time	4)/D14 4)/4 0)/0)4/			
Travelling to site and back for pre-quotation inspection.  Travelling to site and back to disconnect and remove the	1XPM, 1XA, 2XGW			
equipment	1xA, 2XGW			
Transport of the equipment to your works for refurbishment.	1XSS			
Transport of the equipment to site after refurbishment.	1XSS			
Travelling to site and back by to install equipment.	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XA, 2XGW			
Travel to site and back to test and commission	1XPM, 1XSA; 1XA			
			Total	
Accommodation	Cost	LOA without	LOA with	Total
		Meals	Meals	
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (excl. VA	Γ)	

Transport cost for item 10.3

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Zaaihoek Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPORT	r cost	

# 10.4 SLEEVE VALVE AT GROOTDRAAI DAM

(DN 1000, with Electric/hydraulic actuator)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY	RATE	NO OF	TOTAL
	LEVEL OF		HOURS	
	MANPOWER			
General project management	1XPM;1XSO		4;4	
Dismantle and remove	1XA, 2XGW		9;9	
Dismantle	1XA, 2XGW		16;16	
Blast and clean	1XSS;1XGW		5;3	
Inspect	1XSA,1XA		1;3	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Fettling to specification	2XSS		4	
Final blast to SA 3	1XA,1XSS		5;15	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1XA, 2XGW		9;9	
Pressure Test	1XPM;1XS,1XA,		4.4.0.0	
Pressure Test	2XGW		1;1;3;3	
Pressure test certificate	1XSA		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		14;14	
Test & Commission	1XSA, 1XA		4;4	
Cost of equipment to perform scope of work	,			
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection.	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1XA and 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XSA, 1XA			
Travel to site and back by to test and commission	1XPM, 1XSA, 1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
Departmental				
		TOTAL (excl. V	Total	

# Transport cost for item 10.4

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Grootdraai Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TR	ANSPORT COST	

# 10.5 PUMP AT VRESAP PUMPSTATION

(Centrifugal, axial flow, horizontal split, single stage, double suction, 6600 kV; 6.6 MW, flow rate = 2000 l/s)

Total Distance\_\_\_\_km (1 trip to site & back)

	Total Distan		_km (1 mp to s	
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		6;6	
Efficiency test and report	1XT;1XGW		8;8	
Uncouple coupling and loosen pipe work	1XA, 2XGW		4;4	
Remove pump	1XA, 2XGW		2;2	
Dismantle in Workshops	1XA, 2XGW		16;16	
Clean pump and piping	2XGW		8	
Inspect	1XSA		9	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Final blast to SA 3	1XA,1XSS		9;18	
Coat (Epoxy minimum DFT of 400µm internally and	1XA,1XSS		9;36	
epoxy 250μm & polyurethane 40μm)				
Replace shaft with new Stainless Steel shaft	1XSA,1XGW		4;4	
Replace impeller with new Stainless Steel impeller	1XSA,1XGW		4;4	
Replace all brass sleeves with new brass sleeves	1XSA,1XGW		6;6	
Replace existing neck rings with two new stainless steel	1XSA,1XGW		8;8	
neck rings (include. New stainless steel bolts)	,		,-	
Replace existing wearing rings with two new Brass wearing rings (include. New brass bolts)	1XSA,1XGW		8;8	
Replace packings	1XSA,1XGW		6;6	
Fit parts and reassemble pump	1XSA,1XGW		8;8	
Coat pump externally to colour code	1XSS		6	
Supply test report	1XSA		4	
Supply condition of plant report on all work done (Complete including motor repair report) and completed quality control report	1XT		6	
Install pump (new packing material)	1XSA, 2XGW		8;8	
Align with laser	1XSA,2XGW		4;4	
Re-couple	1XSA,2XGW		3;3	
Connect pipework	1XSA,2XGW		5;5	
Test run	1XPM;1XSA, 2xGW		2;5;5	
Efficiency test and report	1xT, 1xGW		8;8	
Commission	1XSS,1XSA		3;3	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for the efficiency testing prior to refurbishment	1xT;1xGW			
Travelling to site and back to disconnect and remove the equipment	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSA, 2XGW			
Transport of the equipment to site after refurbishment	1XSA, 2XGW			
Travelling to site and back to install equipment and laser align	1XSA, 2xGW			
Travelling to site and back for the efficiency testing after to refurbishment	1xT, 1xGW			
Travel to site and back by to laser align, test and commission	1XPM, 1XSS, 1xSA			
		104 111 111	Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
		1	Total	

# Transport cost for item 10.5

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Vresap Pump Station.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

# 10.6 CRANE AT ZAAIHOEK DAM (SERVICE AND SPECIFY REPAIRS)

(53 Ton Portal Crane, with 2 auxiliary 7,5 ton winches)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	·
General project management	1XPM;1XSO		5;5	
Inspection and testing				
Mechanical				
Electrical	1XSA		3	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Complete service  • Clean				
<ul> <li>Lubricate</li> <li>Inspect Safety system components and settings and adjust where required.</li> <li>Inspect and adjust braking systems.</li> </ul>	1XSA,2XSS		9;9	
Replace break shoes	1XSA,2XSS		8;8	
Replace rope with new HDG wire rope and set limits.	1XSA,2XSS		36;36	
Load test	1XSA,2XSS		8;8	
Test reports	1XSA		1	
Living out allowance	1XSA,2XSS		8 Days	
Cost of equipment to perform scope of work				
			Total	
Travelling Time	47/014 47/04 07/00			
Travelling to site and back for pre-quotation inspection Travelling to site and back with load test equipment and	1XPM, 1XSA,2XSS 1XSA, 2xSS			
test.	IAGA, ZXOO			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
Departmental			Total	
		TOTAL (excl.		

## Transport cost for item 10.6

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Zaaihoek Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

#### STOP LOGS AT GROOTDRAAI DAM 10.7

(12m x 3 m, Mild Steel)

SCOPE OF WORK PER STOP LOG

**OF MANPOWER HOURS** Conoral project management 1YDM 1YSO 16 16

SPECIFY

Total Distance

**LEVEL** 

**RATE** 

General project management	1XPM,1XSO		16,16	
Dismantle	1XA,1xSS, 2XGW		16;16;16	
Rough blast and clean	1XA, 1XSS, 1XGW		16;16;16	
Inspect	1XPM,1XA		2;6	
Report, prepare quality control plans, finalising scope of	1XPM		3	
work				
Final blast to SA 3	1XA, 1XSS; 2xGW		24;24;24	
Coat (Wet -DFT 375μm two pack epoxy plus 40μm re-	1XA, 1XSS, 1xGW		80;80;80	
coatable poly-urethane; dry – DFT 250μm two pack epoxy				
plus top coat of 125µm Multi-purpose epoxy)				
Replace seals	1XPM,1XA,2XGW		4;4;4	
Replace lashing strips with stainless steel lashing strips	1XPM,1XA,2XGW		4;4;4	
(coat with epoxy)			, ,	
Replace all bolts with stainless steel bolts (coat with	1XPM,1XA,2XGW		4;4;4	
epoxy)				
Assemble	1XPM,1XA,2XGW		4;4;4	
Test and Commission	1XPM,1XA,2XGW		8;8;8	
Test report	1XPM		4	
Report and submit completed quality control sheets	1XPM		2	
Living out allowance	1XA,1XSS, 2XGW		19 Days	
Living out allowance	1XPM		2 Days	
Cost of equipment to perform scope of work			•	
			Total	
Travelling time				
Travelling to site and back for pre-quotation inspection	1XPM,1XSA			
Travelling to site to do work on site	1XA,1XSS, 2XGW			
Travelling to site and back to do inspection	1XPM			
Travelling to site for pre-commissioning inspection	1XPM			
Travelling time (trip from site)	1XA,1XSS, 2XGW			
Travel to site and back for assembly, test and commission				
		104 111	Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (ave	\ / A T\	1

TOTAL (excl. VAT)

km (1 trip to site & back)

OF

**TOTAL** 

NO

Transport cost for item 10.7
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Grootdraai Dam.

Transport cost for item 10.7 (continues)

rransport cost for item 10.7	(continues)		
TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	ORT COST	

## 10.8 SCREENS (VRESAP PUMP STATION)

(Trash Racks, Anodised Aluminium)

Total Distance km (1 trip to site & back) SCOPE OF WORK PER SCREEN **SPECIFY RATE** NO OF **TOTAL** LEVEL OF **HOURS MANPOWE** 12,12 General project management 1XPM,1XSO 1XA, 2xGW Remove 3:3 Dismantle 1XA, 1XGW 24;24 Clean 2XGW 16 Inspect 1XA; 1XSS 2; 3 1XPM Report, prepare quality control plans, finalising scope of work 3 Repair 1XA 24 Corrosion protect 1XSS 24 Assemble 1XA 24 Test reports 1XSS 1 Install, test and commission 1XSS, 1XA, 5;5;5 2xGW Report and submit completed quality control sheets 1XPM 2 Cost of equipment to perform scope of work Total **Travelling Time** Travelling to site and back for pre-quotation inspection 1XPM.1XA. 1XSS,1XSO Travelling to site and back to remove the equipment 1XA, 2XGW 1XA, 2XGW Transport of the equipment to your works for refurbishment 1XA, 2XGW 1XPM, 1XSS, Transport of the equipment to site after refurbishment Travelling to site and back by to install, test and commission 1XA, 2XGW Total Accommodation without Cost LOA LOA Total with Meals Meals Guesthouse Contractors Mobile (-200 CREDIT) Departmental Total

## Transport cost for item 10.8

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

TOTAL (excl. VAT)

• The equipment is located at Vresap Pump Station.

TYPE OF VEHICLE		RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST				

#### **PUMP AT ZAAIHOEK DAM** 10.9 (Horizontal split centrifugal pump)

Total Distance\_ \_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		6;6	
Efficiency test and report	1XT;1XGW		8;8	
Uncouple coupling and loosen pipe work	1XA, 2XGW		4;4	
Remove pump	1XA, 2XGW		2;2	
Dismantle in Workshops	1XA, 2XGW		16;16	
Clean pump and piping	2XGW		8	
nspect	1XSA		9	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Final blast to SA 3	1XA,1XSS		9;18	
Coat (Epoxy minimum DFT of 400µm internally and	1XA,1XSS		9:36	
epoxy 250μm & polyurethane 40μm)	1701,17100		0,00	
Replace shaft with new Stainless Steel shaft	1XSA,1XGW		4;4	
Replace impeller with new Stainless Steel impeller	1XSA,1XGW		4;4	
Replace all brass sleeves with new brass sleeves	1XSA,1XGW		6;6	
Replace existing neck rings with two new stainless steel neck rings (include. New stainless steel bolts)	1XSA,1XGW		8;8	
Replace existing wearing rings with two new Brass wearing rings (include. New brass bolts)	1XSA,1XGW		8;8	
Replace packings	1XSA,1XGW		6;6	
Fit parts and reassemble pump	1XSA,1XGW		8;8	
Coat pump externally to colour code	1XSS		6	
Supply test report	1XSA		4	
Supply condition of plant report on all work done Complete including motor repair report) and completed quality control report	1XT		6	
nstall pump (new packing material)	1XSA, 2XGW		8;8	
Align with laser	1XSA,2XGW		4;4	
Re-couple	1XSA,2XGW		3;3	
Connect pipework	1XSA,2XGW		5;5	
Test run	1XPM;1XSA, 2xGW		2;5;5	
Efficiency test and report	1xT, 1xGW		8;8	
Commission	1XSS,1XSA		3;3	
Cost of equipment to perform scope of work	, -		- , -	
			Total	
ravelling Time				
ravelling to site and back for the efficiency testing prior or refurbishment	1xT;1xGW			
Γravelling to site and back to disconnect and remove the equipment	1XA, 2XGW			
Fransport of the equipment to your works for refurbishment	1XSA, 2XGW			
ransport of the equipment to site after refurbishment	1XSA, 2XGW			
Fravelling to site and back to install equipment and laser align	1XSA, 2xGW			
Travelling to site and back for the efficiency testing after or refurbishment	1xT, 1xGW			
ravel to site and back by to laser align, test and commission	1XPM, 1XSS, 1xSA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile			_	
		1	Total	

# Transport cost for item 10.9

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Zaaihoek Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSP	ORT COST	

# 10.10 ACTUATOR AT GROOTDRAAI DAM (SERVICE)

(200-9000Nm, SA 100 E, 180 I/min)

km (1 trip to site & back) Total Distance NO OF **SCOPE OF WORK** SPECIFY LEVEL **RATE TOTAL OF MANPOWER HOURS** General project management 1XPM,1XSO 8,8 Remove 1XA Dismantle 1XA 5 Clean 2XGW 1 Inspect 1XSS 1 Report 1XSS 0.2 Reassemble 1XA 5 Re-connect wiring 2 1SS Reset limits/calibrate 1XSS,1XA 1.5;1.5 1XSS Coat 1 Test certificate 1XSS 1 1XA 2 Commission Cost of equipment to perform scope of work Total Travelling Travelling time (1 trip to site and back) to disconnect and 1XA remove equipment Transport of the equipment to your works for refurbishment Transport of the equipment to site after refurbishment 1XA Travelling time (1 trip to site and back) to install equipment test and commission Total Accommodation Cost LOA LOA with without Meals Meals Guesthouse Contractors Mobile (-200 CREDIT) Departmental Total

## Transport cost for item 10.10

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

TOTAL (excl. VAT)

The equipment is located at Grootdraai dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	RT COST	

# 10.11 ACTUATOR AT VRESAP PUMP STATION (SERVICE)

(25kNm, 16 AD, 48 u/min)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM,1XSO		8,8	
Remove	1XA		1	
Dismantle	1XA		5	
Clean	2XGW		1	
Inspect	1XSS		1	
Report	1XSS		0.2	
Reassemble	1XA		5	
Re-connect wiring	1SS		2	
Reset limits/calibrate	1XSS,1XA		1.5;1.5	
Coat	1XSS		1	
Test certificate	1XSS		0.2	
Commission	1XA		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling time (1 trip to site and back) to disconnect and remove equipment	1XA			
Transport of the equipment to your works for refurbishment				
Transport of the equipment to site after refurbishment				
Travelling time (1 trip to site and back) to install equipment test and commission	1XA			
- 1-1			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
•			Total	
		TOTAL (exc	L VAT)	

# Transport cost for item 10.11

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Vresap Pump Station.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

## 10.12 ELECTRIC MOTOR REFURBISHMENT (ZAAIHOEK DAM)

(Squirrel cage, induction, star coupled, direct on line,1650kW, 6.6 kV, 186 a, 988 rev/min, 50 Hz)

Total Distance km (1 trip to site & back)

	Total Distance		(1 trip to sit	
SCOPE OF WORK	SPECIFY LEVEL	RATE	NO OF	TOTAL
	OF MANPOWER		HOURS	
General project management	1XPM,1XSO		8,8	
Efficiency test and report	1XT,1XGW		8:8	
Uncouple and loosen all pipework	1XA,1XSS		5;5	
Remove Motor	1XA.1XSS		12:6	
Dismantle	1XA,1XSS		4:8	
Clean	1XSS		4	
Inspect	1XT,1XA		1;3	
Report, prepare quality control plans, finalising scope of	1XPM		3	
work				
Clean all cooling water pipes and systems	1XGW		4	
Rewind stator to acceptable standards	1XA,1XSS		45;70	
Check temp. sensors, replace faulty ones and ensure 2 per phase.	1XA,1XSS		3;5	
Check motor heaters	1XA		1	
Vacuum pressure impregnate	1XA		3	
Repair/replace defective rotor bars	1XA,1XSS		45;45	
Re-metal white metal bearings (DE + NDE)				
Repair shaft journals				
Balance rotor	1XA		6	
Assemble motor	1XA,1XSS		10;10	
Test run motor	1XT		6	
Test report	1XT		1	
Condition of plant report (To be included in pump condition of plant report)	1XT		5	
Install	1XA,1XSS		6;6	
Reconnect	1XT,1XA,1XSS		2;4;4	
Align (Laser)	1XT,1XSS		3;3	
Test run	1XT		5	
Commission	1XT		2	
Efficiency test and report	1XT,1XGW		8;8	
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (1 trip to site and back)	1XT,1XGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
Travelling time (1 trip to site and back)	1XT,1XGW			
<u> </u>			Total	
		TOTAL (excl.	VAT)	

# Transport cost for item 10.12

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at Zaaihoek Dam.
- Travelling to site and back by 1xT, 1xGW for the efficiency testing prior to refurbishment.
- Travelling to site and back by 1xA, 1xSS to disconnect and remove the equipment.
- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to and back site, two trips, by 1XT, 1XA, 1XSS to install, reconnect, align equipment and commission.

Travelling to site and back by 1xT, 1xGW for the efficiency testing after refurbishment.

# Transport cost for item 10.12 (continues)

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPORT C	OST	

# 10.13 SWITCHGEAR AND CAPACITORS SERVICING PER PUMP SET (GROOTDRAAI PUMP STATION)

(Medium Voltage, 6.6 kV, 1250 A, 10 MVA)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM,1XSO		2	
Travelling time (one trip to site)	1XSA,1XA,1XSS,			
Cleaning of all switchgear units' components and capacitors (Internal and external)	1XA,1XSS		3;5	
Checking of all termination's	1XA		2	
Tightening of all loose contacts	1XSS		2	
Testing of all relevant instrumentation, relays, contactors, protection etc.	1XSA		6	
Detailed report for each individual switchgear and capacitor unit	1XSA		2	
Identification of obsolete switchgear	1XSA		1	
Detailed report of obsolete switchgear	1XSA		1	
Travelling time (one trip from site)	1XSA,1XA,1XSS,			
Cost of equipment to perform scope of work				
			Total	
Travelling				
Travelling time (1 trip to site and back)	1XT,1XGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
			Total	
	•	TOTAL (exc	I. VAT)	

## Transport cost for item 10.13

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at Grootdraai Pump Station.
- Travelling to site by 1XSA, 1XA, 1XSS.
- Travelling from site by 1XSA, 1XA, 1XSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

# 10.14 SWITCHGEAR SERVICING (VRESAP PUMP STATION)

(Low Voltage, 400 V)

Total Distance\_\_\_\_km (1 trip to site & back)

LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
1 PM,1XSO		2,2	
1XA,1XSS		1,1	
1XA		1/2	
1XSS		2	
, 1XA		4	
1XA		1	
1XA		1	
1XA		1/2	
		Total	
1XA,1XSS			
1XA,1XSS			
		Total	
	MANPOWER  1 PM,1XSO  1XA,1XSS  1XA  1XSS  1, XA  1XA  1XA  1XA  1XA  1XA  1XA	MANPOWER  1 PM,1XSO  1XA,1XSS  1XA  1XSS  3, 1XA  1XA  1XA  1XA  1XA  1XA  1XA  1XA	MANPOWER         1 PM,1XSO       2,2         1XA,1XSS       1,1         1XA       ½         1XSS       2         3, 1XA       4         1XA       1         1XA       1         1XA       ½         Total         1XA,1XSS         1XA,1XSS

TOTAL (excl. VAT)

# Transport cost for item 10.14

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

- The equipment is located at Vresap Pump Station.
- Travelling to site by 1xA, 1xSS.
- Travelling from site by 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

#### 10.15 TRANSFORMERS REFURBISHMENT (GROOTDRAAI DAM)

(250 kVA, 6600/400 V, 3 Phase, 50 Hz)

km (1 trip to site & back) Total Distance **SCOPE OF WORK SPECIFY** NO OF **TOTAL RATE LEVEL OF HOURS MANPOWER** 1XPM,1XSO General project management 4,4 Uncouple and loosen termination's 1XA, 2XSS 1,1 Remove 1XA, 2XSS 3,3 Test oil and forward detailed report 1XA 1 Dismantle 1XA,1XSS 4;4 Clean 1XSS 2 2 Inspect 1XA 1XPM 3 Report, prepare quality control plans, finalising scope of work Rewind 1XA,1XSS 20,20 1XA,1XSS Assemble 15,15 1XSS 1XSS Replace oil with new oil Replace all gaskets 2 1XT 1 Appropriate tests 1 Test reports 1XT Install 1XA 5 Reconnect 1XA 3 1XT Commission 1 Cost of equipment to perform scope of work

1XA, 2xSS

1XT,1XA

TOTAL (excl. VAT)

Total

Total

### Transport cost for item 10.15

Travelling

Travelling time (to site and back)

Travelling time (to site and back)

The transport on the item will be calculated on the following criteria:

- The equipment is located at Grootdraai Dam.
- Travelling to site and back by 1XA, 2xSS to disconnect and remove the equipment.
- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to site and back by 1XT,1XA to install, reconnect test and commission.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSP	ORT COST	

# 11 CENTRAL OPERATIONS TUGELA VAAL AREA

# 11.1 NEEDLE VALVE AT STERKFONTEIN DAM

(DN 800/700, 25 Bar, with hydraulic damping system gearbox and electric actuator)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
Project management	1 PM		6	
Disconnect and Remove	1XA, 2XGW		5;5	
Dismantle	1XA, 2XGW		5;15	
Rough blast and clean	1XSS, 1XGW		5;3	
Inspect	1XSA, 1XA		2;4	
Report, prepare quality control plans, finalising scope of work	1XPM,1XSO		3,3	
Pressure test body	1XSA,1XA, 2XGW		1;2;2	
Fettling to specification	2XSS		16	
Final blast to SA 3	1XA,1XSS		6;16	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;16	
Polish of plunger	1XA, 1XGW		5;1	
Manufacture of crank and connecting rod bushes	1XA		2	
Reassemble	1XA, 2XGW		10;15	
Pressure test	1XSA,1XA, 2XGW		1;4;4	
Pressure test certificate	1XSA		1	
Install	1XA, 2XGW		8;8	
Testing and Commission	1XSA ; 1XA		5;5	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment.	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSS, 1XA			
Transport of the equipment to site after refurbishment	1XSS, 1XA			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XSA, 1XA			
Travel to site and back to test and commission	1XPM,1XSA, 1XA			
			Total	
Accommodation	Cost	LOA with- out Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (ex	cl. VAT)	

# Transport cost for item 11.1

For adjudication purposes the transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

•The equipment is located at **Sterkfontein Dam** 

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRAN	SPORT COST	

### 11.2 SPHERICAL VALVE AT DRIEL DAM

(DN 1000, 2,5 MPa, with gearbox and electric/hydraulic actuator)

Total Distance km (1 trip to site & back) **SCOPE OF WORK SPECIFY RATE** NO OF **TOTAL LEVEL** OF **HOURS MANPOWER** General project management 1 PM 4 Disconnect and Remove 1XA, 2XGW 8;8 Dismantle 1XA, 2XGW 12;12 Rough blast and clean 1XSS, 1XGW 6;3 Inspect 1XPM,1XS,1XA 2;2;4 Report, prepare quality control plans, finalising scope of work 1XPM,1XSO 3,3 1XS,1XA, 2XGW Pressure Test 1;2;2 Fettling to specification 2XSS 16 Final blast to SA 3 1XA,1XSS 6;16 Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & 1XA,1XSS 3;18 polyurethane 40µm) Reassemble & Inspection 1XPM, 1XS,1XA, 2; 2;16;16 2XGW Pressure Test 1XPM; 1XS,1XA, 1; 1;4;4 2XGW Pressure test certificate 1XS 1 Install 1XA,2XGW 8;8 Commission 1XS,1XA 5;5 Report and submit quality control sheets 1XPM 2 Cost of equipment to perform scope of work Total **Travelling Time** Travelling to site and back for pre-quotation inspection 1X PM, 1XA, 2XGW Travelling to site and back to disconnect and remove the equipment 1XA, 2XGW Transport of the equipment to your works for refurbishment 1XSS Transport of the equipment to site after refurbishment 1XSS Travelling to site and back by to install equipment 1XA, 2XGW Travel to site and back for pre-commissioning tests 1XS;1XA Travel to site and back by to test and commission 1XPM,1XS & 1XA Total Accommodation Cost without LOA with Total LOA Meals Meals Guesthouse Contractors Mobile (-200 CREDIT)

### Transport cost for item 11.2

Departmental

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at **Driel Dam**.

TYPE OF VEHICLE (ENGIN CAPACITY)	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRAN	SPORT COST	

Total

TOTAL (excl. VAT)

#### 11.3 **BUTTERFLY VALVE AT JAGERSRUST**

(DN 2000, with drop weight hydraulic / actuator)

Total Distance\_ km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM,1XSO		6,6	
Disconnect and remove	1XA, 2XGW		8;8	
Dismantle	1XA, 2XGW		9;9	
Rough blast and clean	1XSS, 1XGW		4;4	
Inspect	1XSA,1XA		2;2	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Pressure test body	1XPM;1XSA, 1XA, 2XGW		1;1;3;3	
Fettling to specification	2XSS		10	
Manufacture and fit new stainless steel body seat	1XA,1XSS		9;3	
Manufacture new stainless steel clamp ring	1XA		6	
Manufacture new bushes	1XA		3	
Final blast to SA 3	1XA,1XSS		4;12	
Coat (Epoxy minimum DFT of 400 $\mu$ m internally and epoxy 250 $\mu$ m & polyurethane 40 $\mu$ m)	1XA,1XSS		2;14	
Reassemble	1XA, 2XGW		12;12	
Pressure Test	1XPM; 1XSA,1XA, 2XGW		1;1;4;4	
Pressure test certificate	1XS		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		9;9	
Test & Commission	1XSA; 1XA		6;6	
Cost of equipment to perform scope of work				
Travallina Tima			Total	
Travelling Time Travelling to site and back for pre-quotation inspection.	4 V D M 4 V A 2 V C M /			
Travelling to site and back to disconnect and remove the equipment	1XPM, 1XA, 2XGW			
Transport of the equipment to your works for refurbishment.	1XA, 2XGW			
	1XSS			
Transport of the equipment to site after refurbishment.  Travelling to site and back by to install equipment.	1XSS			
Travel to site and back for pre-commissioning tests	1XA, 2XGW			
Travel to site and back to test and commission	1XA, 2XGW			
וומיטו נס אונכ מווע טמטא נט נפא מווע כטוווווואאטווו	1XPM, 1XS; 1XA		T-1-1	
Annual delian	01	104	Total	T-1-1
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (excl. V	AT)	

Transport cost for item 11.3
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Jagersrust Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPORT	COST	

# 11.4 SLEEVE VALVE AT STERKFONTEIN DAM

(DN 1000, with Electric/hydraulic actuator)

Total Distance\_\_\_\_km (1 trip to site & back)

	Total Distance	1	inp to site a	1
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM		4	
Dismantle and remove	1XA, 2XGW		9;9	
Dismantle	1XA, 2XGW		16;16	
Blast and clean	1XSS;1XGW		5;3	
Inspect	1XSA,1XA		1;3	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Fettling to specification	2XSS		4	
Final blast to SA 3	1XA,1XSS		5;15	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1XA, 2XGW		9;9	
Pressure Test	1XPM;1XSA,1XA, 2XGW		1;1;3;3	
Pressure test certificate	1XS		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		14;14	
Test & Commission	1XSA, 1XA		4;4	
Cost of equipment to perform scope of work	·			
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection.	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1XA and 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XS, 1XA			
Travel to site and back by to test and commission	1XPM, 1XS, 1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
Departmental				
		TOTAL (excl.	Total	

## Transport cost for item 11.4

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at **Sterfontein Dam**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL T	TRANSPORT COST	

### 11.5 PUMP AT DRIEL PUMPSTATION

SCOPE OF WORK

Connect pipework

Efficiency test and report

Cost of equipment to perform scope of work

Travelling to site and back for the efficiency testing prior to

Test run

Commission

Travelling Time

Contractors Mobile

(Centrifugal, axial flow, horizontal split, single stage, double suction, 6600 kV; 6.6 MW, flow rate = 2000 l/s)

Total Distance

SPECIFY

RATE

km (1 trip to site & back)

TOTAL

NO OF

2;5;5

8;8

3;3

Total

Total

TOTAL (excl. VAT)

OF HOURS **LEVEL MANPOWER** General project management 1XPM,1XSO 6;6 Efficiency test and report 1XT:1XGW 8;8 Uncouple coupling and loosen pipe work 1XA, 2XGW 4;4 1XA, 2XGW Remove pump 2;2 Dismantle in Workshops 1XA, 2XGW 16;16 2XGW Clean pump and piping 8 1XSA 9 Inspect 3 Report, prepare quality control plans, finalising scope of work 1XPM 1XA,1XSS Final blast to SA 3 9;18 Coat (Epoxy minimum DFT of 400 µm internally and epoxy 250 µm & 1XA,1XSS 9;36 polyurethane 40µm) Replace shaft with new Stainless Steel shaft 1XSA,1XGW 4;4 Replace impeller with new Stainless Steel impeller 1XSA,1XGW 4;4 Replace all brass sleeves with new brass sleeves 1XSA,1XGW 6;6 Replace existing neck rings with two new stainless steel neck rings 1XSA,1XGW 8:8 (include. New stainless steel bolts) Replace existing wearing rings with two new Brass wearing rings 1XSA,1XGW 8:8 (include. New brass bolts) Replace packings 1XSA.1XGW 6:6 Fit parts and reassemble pump 1XSA,1XGW 8;8 Coat pump externally to colour code 1XSS 6 Supply test report 1XSA 4 Supply condition of plant report on all work done (Complete including 1XT 6 motor repair report) and completed quality control report Install pump (new packing material) 1XSA, 2XGW 8;8 Align with laser 1XSA,2XGW 4;4 Re-couple 1XSA,2XGW 3;3

1XSA,2XGW 1XPM;1XSA,

1XT, 1XGW

1XS,1XSA

2XGW

refurbishment	1XT;1XGW			
Travelling to site and back to disconnect and remove the equipment	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XSA, 2XGW			
Transport of the equipment to site after refurbishment	1XSA, 2XGW			
Travelling to site and back to install equipment and laser align	1XSA, 2XGW			
Travelling to site and back for the efficiency testing after to refurbishment	1XT, 1XGW			
Travel to site and back by to laser align, test and commission	1XPM,1XSS, 1XSA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				

### Transport cost for item 11.5

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at **Driel Pump Station**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	RT COST	

# 11.6 CRANE AT JAGERSRUST (SERVICE AND SPECIFY REPAIRS)

(53 Ton Portal Crane, with 2 auxiliary 7,5 ton winches)

SCOPE OF WORK

Replace break shoes

Living out allowance

**Travelling Time** 

Accommodation

Guesthouse Contractors Mobile Departmental

Load test

Test reports

**LEVEL OF HOURS MANPOWER** General project management 1 PM 5 Inspection and testing Mechanical 1XSA 3 Electrical Report, prepare quality control plans, finalising scope of work 1XPM,1XSO 3;3 Complete service Clean Lubricate 1XSA,2XSS 9;9 Inspect Safety system componebts and settings and adjust where required.

1XSA,2XSS

1XSA,2XSS

1XSA,2XSS

1XSA,2XSS

1XSA

1XPM, 1XSA,2XSS 1XSA, 2xSS

Cost

**Total Distance** 

RATE

SPECIFY

km (1 trip to site & back)

**TOTAL** 

NO OF

8;8

36;36

8 Days

Total

Total

Meals

Total

LOA with

Total

TOTAL (excl. VAT)

LOA without

Meals

## Transport cost for item 11.6

Inspect and adjust braking systems.

Replace rope with new HDG wire rope and set limits.

Travelling to site and back for pre-quotation inspection

Travelling to site and back with load test equipment and test.

Cost of equipment to perform scope of work

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Jagersrust.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

#### 11.7 STOP LOGS AT STERKFONTEIN DAM

(12m x 3 m, Mild Steel)

**Total Distance** km (1 trip to site & back)

SCOPE OF WORK PER STOP LOG	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		16;16	
Dismantle	1XA,1XSS, 2XGW		16;16;16	
Rough blast and clean	1XA, 1XSS, 1XGW		16;16;16	
Inspect	1XPM,1XA		2;6	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Final blast to SA 3	1XA, 1XSS; 2XGW		24;24;24	
Coat (Wet -DFT 375μm two pack epoxy plus 40μm re-	1XA, 1XSS, 1XGW		80;80;80	
coatable poly-urethane; dry – DFT 250µm two pack epoxy plus				
top coat of 125µm Multi-purpose epoxy)				
Replace seals	1XPM,1XA,2XGW		4;4;4	
Replace lashing strips with stainless steel lashing strips (coat	1XPM,1XA,2XGW		4;4;4	
with epoxy)				
Replace all bolts with stainless steel bolts (coat with epoxy)	1XPM,1XA,2XGW		4;4;4	
Assemble	1XPM,1XA,2XGW		4;4;4	
Test and Commission	1XPM,1XA,2XGW		8;8;8	
Test report	1XPM		4	
Report and submit completed quality control sheets	1XPM		2	
Living out allowance	1XA,1XSS, 2XGW		19 Days	
Living out allowance	1XPM		2 Days	
Cost of equipment to perform scope of work				
			Total	
Travelling time				
Travelling to site and back for pre-quotation inspection	1XPM,1XSA			
Travelling to site to do work on site	1XA,1XSS, 2XGW			
Travelling to site and back to do inspection	1xPM			
Travelling to site for pre-commissioning inspection	1XPM			
Travelling time (trip from site)	1XA,1XSS, 2XGW			
Travel to site and back for assembly, test and commission				
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental			1	
			Total	
		TOTAL (excl	. VAT)	

Transport cost for item 11.7
The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at **Sterkfontein Dam**.

Transport cost for item 11.7 (co	,		T
TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANS	SPORT COST	

#### **SCREENS (DRIEL WIER)** 11.8

(Trash Racks, Anodised Aluminium)

Total Distance\_ km (1 trip to site & back)

SCOPE OF WORK PER SCREEN	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		12	
Remove	1XA, 2xGW		3:3	
Dismantle	1XA, 1XGW		24;24	
Clean	2XGW		16	
Inspect	1XA; 1XSS		2; 3	
Report, prepare quality control plans, finalising scope of work	1XPM;1XSO		3;3	
Repair	1XA		24	
Corrosion protect	1XSS		24	
Assemble	1XA		24	
Test reports	1XSS		1	
Install, test and commission	1XSS, 1XA, 2xGW		5;5;5	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection	1XPM,1XA; 1XSS			
Travelling to site and back to remove the equipment	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XA, 2XGW			
Transport of the equipment to site after refurbishment	1XA, 2XGW			
Travelling to site and back by to install, test and commission	1XPM, 1XSS, 1XA, 2XGW			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (excl.	VAT)	1

Transport cost for item 11.8

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Driel Wier.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANS	SPORT COST	

# 11.9 CREST GATES (JAGERSRUST)

(Flood Control, Radial Type, 12m x 12 m, Mild Steel)

Total Distance km (1 trip to site & back)

	Total Distance	NI	n (1 thp to s	site & back)
SCOPE OF WORK PER CREST GATE	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1 PM		6	
Inspect/Evaluate	1XPM,1XA		8;8	
Report, prepare quality control plans, finalising scope of	1XPM;1XSO		3;3	
work	·			
Blast	1XA,2XSS,4XGW		80;120;120	
Clean	1XA,4XGW		16;16	
Application of protective coating (per coat)	1XA,2XSS,4XGW		36;120;120	
Replace seals	1XPM,2XA,4XGW		2:8:8	
Replace lashing strips with stainless steel lashing strips (coat )	1XPM,2XA,4XGW		2;8;8	
Replace all fasteners with stainless steel fasteners (coat)	1XPM,2XA,4XGW		2;8;8	
Test report	1XPM; 2XA		5; 3	
Living out allowance	1XPM; 2XA; 2XSS;		2; 18; 27;	
	4XGW		30	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling time (1 trip to site and back) pre-quotation	1XPM			
Travelling time (2 trips to site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (2 trips from site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (one trip to site and back) commissioning	1XPM			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (eyel V/	\ T\	

TOTAL (excl. VAT)

## Transport cost for item 11.9

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at **Jagersrust**.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANS	SPORT COST	

### 11.10 ACTUATOR AT STERKFONTEIN DAM (SERVICE)

(200-9000Nm, SA 100 E, 180 I/min)

**SCOPE OF WORK** SPECIFY LEVEL **RATE** NO OF **TOTAL OF MANPOWER HOURS** General project management 1XPM;1XSO 8;8 Remove 1XA Dismantle 1XA 5 Clean 2XGW 1 Inspect 1XSS 1 1XSS Report 0.2 Reassemble 1XA 5 Re-connect wiring 2 1SS Reset limits/calibrate 1XSS,1XA 1.5;1.5 Coat 1XSS 1 Test certificate 1XSS 1 1XA 2 Commission Cost of equipment to perform scope of work Total Travelling Travelling time (1 trip to site and back) to disconnect and 1XA

1XA

Cost

Total Distance

Total

TOTAL (excl. VAT)

Total

Meals

LOA with

LOA without

Meals

km (1 trip to site & back)

### Transport cost for item 11.10

Transport of the equipment to your works for refurbishment Transport of the equipment to site after refurbishment

Travelling time (1 trip to site and back) to install equipment

remove equipment

test and commission

Contractors Mobile (-200 CREDIT)

Accommodation

Guesthouse

Departmental

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

The equipment is located at Sterkfontein Dam.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRA	NSPORT COST	

### 11.11 ACTUATOR AT DRIEL WIER (SERVICE)

(25kNm, 16 AD, 48 u/min)

Total Distance km (1 trip to site & back) **SCOPE OF WORK SPECIFY RATE** NO OF **TOTAL LEVEL OF HOURS MANPOWER** 1XPM;1XSO General project management 8:8 Remove 1XA 1 Dismantle 1XA 5 2XGW Clean 1 Inspect 1XSS 1 Report 1XSS 0.2 Reassemble 1XA 5 Re-connect wiring **1SS** 2 Reset limits/calibrate 1XSS,1XA 1.5;1.5 Coat 1XSS Test certificate 1XSS 0.2 Commission 1XA 2 Cost of equipment to perform scope of work Total **Travelling Time** Travelling time (1 trip to site and back) to disconnect and remove 1XA equipment Transport of the equipment to your works for refurbishment Transport of the equipment to site after refurbishment Travelling time (1 trip to site and back) to install equipment test and 1XA commission Total Accommodation LOA without LOA with Cost Meals Meals Guesthouse Contractors Mobile (-200 CREDIT) Departmental

**TOTAL (excl. VAT)** 

Total

### Transport cost for item 11.11

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

• The equipment is located at Driel Wier.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANS	SPORT COST	

### 11.12 ELECTRIC MOTOR REFURBISHMENT (JAGERSRUST)

(Squirrel cage, induction, star coupled, direct on line, 1650kW, 6.6 kV, 186 A, 988 rev/min, 50 Hz)

Total Distance km (1 trip to site & back) **SCOPE OF WORK** SPECIFY LEVEL **RATE** NO OF TOTAL OF MANPOWER **HOURS** 1XPM;1XSO General project management 8;8 1XT,1XGW Efficiency test and report 8;8 Uncouple and loosen all pipework 1XA,1XSS 5;5 Remove Motor 1XA,1XSS 12;6 Dismantle 1XA,1XSS 4;8 Clean 1XSS 4 1XT,1XA 1;3 Inspect 1XPM 3 Report, prepare quality control plans, finalising scope of Clean all cooling water pipes and systems 1XGW 4 Rewind stator to acceptable standards 1XA,1XSS 45;70 Check temp. sensors, replace faulty ones and ensure 2 1XA,1XSS 3;5 per phase. Check motor heaters 1XA 1 Vacuum pressure impregnate 1XA 3 Repair/replace defective rotor bars 1XA,1XSS 45;45 Re-metal white metal bearings (DE + NDE) Repair shaft journals 1XA 6 Balance rotor Assemble motor 1XA,1XSS 10;10 Test run motor 1XT 6 Test report 1XT 1 Condition of plant report (To be included in pump 1XT 5 condition of plant report) 1XA,1XSS Install 6;6 Reconnect 1XT,1XA,1XSS 2;4;4 1XT,1XSS Align (Laser) 3;3 Test run 1XT 5 Commission 1XT 2 1XT,1XGW Efficiency test and report 8;8 Cost of equipment to perform scope of work Total Travelling Travelling time (1 trip to site and back) 1XT,1XGW Travelling time (1 trip to site and back) 1XA,1XSS

Transport cost for item 11.12

Travelling time (2 trips to site and back)

Travelling time (1 trip to site and back)

The transport cost on the item will be calculated on the following criteria: See the Travelling time in the Table above for the detail of trips and select the type of vehicle to be used.

1XT,1XA,1XSS

1XT,1XGW

- The equipment is located at Jagersrust.
- Travelling to site and back by 1XT, 1XGW for the efficiency testing prior to refurbishment.
- Travelling to site and back by 1XA, 1XSS to disconnect and remove the equipment.
- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to and back site, two trips, by 1XT, 1XA, 1XSS to install, reconnect, align equipment and commission.

Travelling to site and back by 1XT, 1XGW for the efficiency testing after refurbishment.

### Transport cost for item 11.12 (continues)

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPORT	COST	

Total

TOTAL (excl. VAT)

### 11.13 SWITCHGEAR AND CAPACITORS SERVICING PER PUMP SET (STERKFONTEIN DAM)

(Medium Voltage, 6.6 kV, 1250 A, 10 MVA)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		2;2	
Travelling time (one trip to site)	1XSA,1XA,1XSS,			
Cleaning of all switchgear units' components and capacitors (Internal and external)	1XA,1XSS		3;5	
Checking of all termination's	1XA		2	
Tightening of all loose contacts	1XSS		2	
Testing of all relevant instrumentation, relays, contactors, protection etc.	1XSA		6	
Detailed report for each individual switchgear and capacitor unit	1XSA		2	
Identification of obsolete switchgear	1XSA		1	
Detailed report of obsolete switchgear	1XSA		1	
Travelling time (one trip from site)	1XSA,1XA,1XSS,			
Cost of equipment to perform scope of work			•	
			Total	
Travelling				
Travelling time (1 trip to site and back)	1XT,1XGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
			Total	
		TOTAL (ex	cl. VAT)	

### Transport cost for item 11.13

- The equipment is located at Sterkfontein Dam.
- Travelling to site by 1XSA, 1XA, 1XSS.
- Travelling from site by 1XSA, 1XA, 1XSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	RT COST	

### 11.14 SWITCHGEAR SERVICING (DRIEL WIER)

(Low Voltage, 400 V)

Total Distance km (1 trip to site & back) SCOPE OF WORK **SPECIFY** RATE NO OF **TOTAL LEVEL** OF **HOURS MANPOWER** General project management 1XPM;1XSO 2;2 Cleaning of all switchboard units (Internal & external) 1XA,1XSS 1;1 Checking of all termination's 1/2 1XA 1XSS 2 Tightening of all loose contacts Testing of all relevant instrumentation, contactors, relays, 4 1XA etc. Detailed report for each individual switchgear unit 1XA 1 Identification of obsolete switchgear 1XA 1 Detailed reports of obsolete switchgear 1XA 1/2 Cost of equipment to perform scope of work Total Travelling

1XA,1XSS 1XA,1XSS

TOTAL (excl. VAT)

Total

### Transport cost for item 11.14

Travelling time (to site)
Travelling time (from site)

- The equipment is located at Driel Wier.
- Travelling to site by 1xA, 1xSS.
- Travelling from site by 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSF	ORT COST	

### 11.15 TRANSFORMERS REFURBISHMENT (JAGERSRUST)

(250 kVA, 6600/400 V, 3 Phase, 50 Hz)

Total Distance km (1 trip to site & back) SCOPE OF WORK **SPECIFY RATE** NO OF **TOTAL LEVEL** OF **HOURS MANPOWER** 4;4 General project management 1XPM;1XSO Uncouple and loosen termination's 1XA, 2XSS 1:1 1XA, 2XSS Remove 3;3 Test oil and forward detailed report 1XA 1 1XA,1XSS Dismantle 4;4 Clean 1XSS 2 2 Inspect 1XA 1XPM 3 Report, prepare quality control plans, finalising scope of work Rewind 1XA,1XSS 20;20 Assemble 1XA,1XSS 15;15 Replace oil with new oil 1XSS 2 Replace all gaskets 1XSS 2 Appropriate tests 1 1XT Test reports 1XT 1 1XA Install 5 Reconnect 1XA 3 Commission 1XT 1 Cost of equipment to perform scope of work Total Travelling Travelling time (to site and back) 1XA, 2xSS

Transport cost for item 11.15

Travelling time (to site and back)

The transport on the item will be calculated on the following criteria:

- The equipment is located at Jagersrust.
- Travelling to site and back by 1XA, 2xSS to disconnect and remove the equipment.

1XT,1XA

Total

TOTAL (excl. VAT)

- Transport of the equipment to your works for refurbishment.
- Transport of the equipment to site after refurbishment.
- Travelling to site and back by 1XT,1XA to install, reconnect test and commission.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPO	RT COST	

# 12 CENTRAL OPERATIONS FREE STATE AREA

### 12.1 BUTTERFLY VALVE AT KNELLPOORT DAM

(DN 1000, with hydraulic actuator)

Total Distance\_\_\_\_km (1 trip to site & back)

COPE OF WORK SPECIFY LEVEL RATE NO OF TOTAL

SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		6;6	
Disconnect and remove	1xA, 2XGW		8;8	
Dismantle	1xA, 2XGW		9;9	
Rough blast and clean	1XSS, 1XGW		4;4	
Inspect	1XS,1XA		2;2	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Pressure test body	1XPM;1XS, 1XA, 2XGW		1;1;3;3	
Fettling to specification	2XSS		10	
Manufacture and fit new stainless steel body seat	1XA,1XSS		9;3	
Manufacture new stainless steel clamp ring	1XA		6	
Manufacture new bushes	1XA		3	
Final blast to SA 3	1XA,1XSS		4;12	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1xA, 2XGW		12;12	
Pressure Test	1XPM; 1XS,1xA, 2XGW		1;1;4;4	
Pressure test certificate	1XS		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		9;9	
Test & Commission	1XS; 1XA		6;6	
Cost of equipment to perform scope of work				
Travelline Time			Total	
Travelling Time  Travelling to site and back for pre-quotation inspection.	4VDM 4VA 0VOM			
Travelling to site and back to disconnect and remove the equipment	1XPM, 1XA, 2XGW			
Transport of the equipment to your works for refurbishment.	1xA, 2XGW			
	1XSS			
Transport of the equipment to site after refurbishment.  Travelling to site and back by to install equipment.	1XSS			
Travel to site and back for pre-commissioning tests	1XA, 2XGW			
Travel to site and back to test and commission	1XA, 2XGW			
Travel to site and busin to test and sommission	1XPM, 1XS; 1XA		Tatal	
Accommodation	Cost	LOA without	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
- '			Total	
	l	TOTAL (excl. V		

### Transport cost for item 12.1

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
,	TOTAL TRANSPOR	TCOST	

### 12.2 SLEEVE VALVE AT BLOEMHOF DAM

(DN 1000, with Electric/hydraulic actuator)

Total Distance km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL	RATE	NO OF	
SCOPE OF WORK	OF MANPOWER	RAIL	HOURS	TOTAL
General project management	1XPM;1XSO		4;4	
Dismantle and remove	1XA, 2XGW		9;9	
Dismantle	1XA, 2XGW		16;16	
Blast and clean	1XSS;1XGW		5;3	
Inspect	1XS,1XA		1;3	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Fettling to specification	2XSS		4	
Final blast to SA 3	1XA,1XSS		5;15	
Coat (Epoxy minimum DFT of 400μm internally and epoxy 250μm & polyurethane 40μm)	1XA,1XSS		2;14	
Reassemble	1XA, 2XGW		9;9	
Pressure Test	1XPM;1XSA,1XA, 2XGW		1;1;3;3	
Pressure test certificate	1XSA		1	
Report and submit completed quality control sheets	1XPM		2	
Install	1XA,2XGW		14;14	
Test & Commission	1XSA, 1XA		4;4	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling to site and back for pre-quotation inspection.	1XPM, 1XA, 2XGW			
Travelling to site and back to disconnect and remove the equipment	1XA and 2XGW			
Transport of the equipment to your works for refurbishment	1XSS			
Transport of the equipment to site after refurbishment	1XSS			
Travelling to site and back to install equipment	1XA, 2XGW			
Travel to site and back for pre-commissioning tests	1XS, 1XA			
Travel to site and back by to test and commission	1XPM,1XSA,1XA			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
Departmental			T-/ *	
		TOTAL (excl.	Total	

### Transport cost for item 12.2

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSPORT COST		

### 12.3 PUMP AT VANDERKLOOF DAM PUMPSTATION

(Centrifugal, axial flow, horizontal split, single stage, double suction, 6600 kV; 6.6 MW, flow rate = 2000 l/s)

Total Distance\_\_\_\_km (1 trip to site & back)

	tal Distance		trip to sit	
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	IOTAL
General project management	1XPM;1XSO		6:6	
Efficiency test and report	1XT;1XGW		8;8	
Uncouple coupling and loosen pipe work	1XA, 2XGW		4;4	
Remove pump	1XA, 2XGW		2:2	
Dismantle in Workshops	1XA, 2XGW		16:16	
Clean pump and piping	2XGW		8	
Inspect	1XSA		9	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Final blast to SA 3	1XA,1XSS		9;18	
Coat (Epoxy minimum DFT of $400\mu m$ internally and epoxy $250\mu m$ & polyurethane $40\mu m$ )	1XA,1XSS		9;36	
Replace shaft with new Stainless Steel shaft	1XSA,1XGW		4;4	
Replace impeller with new Stainless Steel impeller	1XSA,1XGW		4;4	
Replace all brass sleeves with new brass sleeves	1XSA,1XGW		6:6	
Replace existing neck rings with two new stainless steel neck rings	1XSA,1XGW		8;8	
(include. New stainless steel bolts)				
Replace existing wearing rings with two new Brass wearing rings (include. New brass bolts)	1XSA,1XGW		8;8	
Replace packings	1XSA,1XGW		6;6	
Fit parts and reassemble pump	1XSA,1XGW		8;8	
Coat pump externally to colour code	1XSS		6	
Supply test report	1XSA		4	
Supply condition of plant report on all work done (Complete including motor repair report) and completed quality control report	1XT		6	
Install pump (new packing material)	1XSA, 2XGW		8;8	
Align with laser	1XSA,2XGW		4;4	
Re-couple	1XSA,2XGW		3;3	
Connect pipework	1XSA,2XGW		5;5	
Test run	1XPM;1XSA, 2XGW		2;5;5	
Efficiency test and report	1XT, 1XGW		8;8	
Commission	1XS,1XSA		3;3	
Cost of equipment to perform scope of work			Total	
Travelling Time			Total	
Travelling time  Travelling to site and back for the efficiency testing prior to refurbishment	1XT;1XGW			
Travelling to site and back to disconnect and remove the equipment	1XA,2XGW			
Transport of the equipment to your works for refurbishment	1XSA,2XGW			
Transport of the equipment to site after refurbishment	1XSA,2XGW			
Travelling to site and back to install equipment and laser align	1XSA,2XGW			
Travelling to site and back for the efficiency testing after to refurbishment	1XT,1XGW			
Travel to site and back by to laser align, test and commission	1XPM,1XSA, 1XSS		Tatal	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile				
			Total	

### Transport cost for item 12.3

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

### 12.4 CRANE AT BLOEMHOF DAM (SERVICE AND SPECIFY REPAIRS)

(52 Ton Portal Crane, with auxiliary 10 ton winches)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK	SPECIFY LEVEL OF	RATE	NO OF HOURS	TOTAL
	MANPOWER		HOUKS	
General project management	1XPM;1XSO		5;5	
Inspection and testing				
Mechanical				
	1XSA		3	
Electrical				
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Complete service				
• Clean				
Lubricate				
Lubricate				
<ul> <li>Inspect Safety system componebts and settings and adjust where required.</li> </ul>	1XSA,2XSS		9;9	
Inspect and adjust braking systems.				
Replace break shoes	1XSA,2XSS		8;8	
Replace rope with new HDG wire rope and set limits.	1XSA,2XSS		36;36	
Load test	1XSA,2XSS		8;8	
Test reports	1XSA		1	
Living out allowance	1XSA,2XSS		8 Days	
Cost of equipment to perform scope of work			1	
			Total	
Travelling Time Travelling to site and back for pre-quotation inspection	1XPM,			
rraveiling to site and back for pre-quotation inspection	1XSA,2XSS			
Travelling to site and back with load test equipment and test.	1XSA, 2xSS			
Accommodation	Coot	LOA without	Total LOA with	Tatal
Accommodation	Cost	Meals	Meals	Total
Guesthouse				
Contractors Mobile				
Departmental			Total	
		TOTAL (excl. V		

### Transport cost for item 12.4

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

#### 12.5 STOP LOGS AT AUGRABIES WEIR

(2,6m x 1,5 m, 3CR12 Stainless Steel)

**Total Distance** km (1 trip to site & back)

Total Distance		n (1 trip to site	a baok)
SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
1XPM;1XSO		16;16	
1XA,1XSS, 2XGW		16;16;16	
1XA, 1XSS,1XGW		16;16;16	
1XPM,1XA		2;6	
1XPM		3	
1XA, 1XSS; 2XGW		24;24;24	
1XA, 1XSS, 1XGW		80;80;80	
1XPM.1XA.2XGW		4:4:4	
		4;4;4	
, ,		, ,	
1XPM,1XA,2XGW		4;4;4	
1XPM,1XA,2XGW		4;4;4	
1XPM,1XA,2XGW		8;8;8	
1XPM		4	
1XPM		2	
1XA,1XSS, 2XGW		19 Days	
1XPM		2 Days	
		Total	
1XPM,1XSA			
1XA,1XSS, 2XGW			
1XPM			
1XPM			
1XA,1XSS,2XGW			
			L
Cost	LOA without Meals	LOA with Meals	Total
		Total	
	1XPM,1XS, 2XGW 1XA,1XSS, 2XGW 1XA, 1XSS,1XGW 1XPM,1XA 1XPM 1XA, 1XSS; 2XGW 1XA, 1XSS; 2XGW 1XA, 1XSS, 1XGW 1XPM,1XA,2XGW 1XPM,1XA,2XGW 1XPM,1XA,2XGW 1XPM,1XA,2XGW 1XPM,1XA,2XGW 1XPM 1XPM 1XPM 1XPM 1XA,1XSS, 2XGW 1XPM 1XPM 1XPM 1XPM 1XPM 1XPM 1XPM 1XPM	OF MANPOWER           1XPM;1XSO           1XA,1XSS, 2XGW           1XA, 1XSS,1XGW           1XPM,1XA           1XPM           1XA, 1XSS; 2XGW           1XA, 1XSS; 1XGW           1XPM,1XA,2XGW           1XPM,1XA,2XGW           1XPM,1XA,2XGW           1XPM,1XA,2XGW           1XPM           1XPM           1XPM           1XPM           1XPM           1XPM           1XPM,1XSA           1XA,1XSS, 2XGW           1XPM           1XPM	OF MANPOWER         HOURS           1XPM;1XSO         16;16           1XA,1XSS,2XGW         16;16;16           1XA, 1XSS,1XGW         16;16;16           1XPM,1XA         2;6           1XPM         3           1XA, 1XSS; 2XGW         24;24;24           1XA, 1XSS, 1XGW         80;80;80           1XPM,1XA,2XGW         4;4;4           1XPM,1XA,2XGW         4;4;4           1XPM,1XA,2XGW         4;4;4           1XPM,1XA,2XGW         4;4;4           1XPM,1XA,2XGW         4;4;4           1XPM         4           1XPM         2           1XA,1XSS,2XGW         19 Days           1XPM         2 Days           Total         Total           Cost         LOA without         LOA with

transport cost for item 12.5 (con	tinues)		
TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
	TOTAL TRANSP	ORT COST	

#### 12.6 **SCREENS (ALLEMANSKRAAL DAM)**

(Trash Racks, Anodised Aluminium)

Total Distance\_\_\_\_km (1 trip to site & back)

SCOPE OF WORK PER SCREEN	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		12;12	
Remove	1XA, 2xGW		3;3	
Dismantle	1XA, 1XGW		24;24	
Clean	2XGW		16	
Inspect	1XA; 1XSS		2; 3	
Report, prepare quality control plans, finalising scope of work	1XPM		3	
Repair	1XA		24	
Corrosion protect	1XSS		24	
Assemble	1XA		24	
Test reports	1XSS		1	
Install, test and commission	1XSS, 1XA, 2XGW		5:5:5	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
<u>Travelling Time</u>				
Travelling to site and back for pre-quotation inspection	1XPM,1XA; 1XSS			
Travelling to site and back to remove the equipment	1XA, 2XGW			
Transport of the equipment to your works for refurbishment	1XA, 2XGW			
Transport of the equipment to site after refurbishment	1XA, 2XGW			
Travelling to site and back by to install, test and commission	1XPM,1XSS,1XA, 2XGW			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
	_	TOTAL (excl.	VAT)	

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
TOTAL TRANSPORT COST			

### 12.7 CREST GATES (GARIEP DAM)

(Flood Control, Radial Type, 12m x 12 m, Mild Steel)

Total Distance\_\_\_\_km (1 trip to site & back)

	i otai Distance_	KI	n (1 thp to s	site & back)
SCOPE OF WORK PER CREST GATE	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM;1XSO		6;6	
Inspect/Evaluate	1XPM,1XA		8;8	
Report, prepare quality control plans, finalising scope of	1XPM		3	
work				
Blast	1XA,2XSS,4XGW		80;120;120	
Clean	1XA,4XGW		16:16	
Application of protective coating (per coat)	1XA,2XSS,4XGW		36;120;120	
Replace seals	1XPM,2XA,4XGW		2;8;8	
Replace lashing strips with stainless steel lashing strips (coat )	1XPM,2XA,4XGW		2;8;8	
Replace all fasteners with stainless steel fasteners (coat)	1XPM,2XA,4XGW		2;8;8	
Test report	1XPM; 2XA		5; 3	
Living out allowance	1XPM;2XA;2XSS;		2; 18; 27;	
	4XGW		30	
Report and submit completed quality control sheets	1XPM		2	
Cost of equipment to perform scope of work				
			Total	
Travelling Time				
Travelling time (1 trip to site and back) pre-quotation	1XPM			
Travelling time (2 trips to site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (2 trips from site)	2XA,2XSS,4XGW			
Travelling time (1 trip to site and back) inspection	1XPM			
Travelling time (one trip to site and back) commissioning	1XPM			
			Total	
Accommodation	Cost	LOA without Meals	LOA with Meals	Total
Guesthouse				
Contractors Mobile (-200 CREDIT)				
Departmental				
			Total	
		TOTAL (eycl \//	\T\	

TOTAL (excl. VAT)

### Transport cost for item 12.7

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

# 12.8 SWITCHGEAR AND CAPACITORS SERVICING PER PUMP SET (VANDERKLOOF PUMP STATION)

(Medium Voltage, 6.6 kV, 1250 A, 10 MVA)

Total Distance\_\_\_\_km (1 trip to site & back)

	Total Distance		<u>.km (1 mp to s</u>	site & back)
SCOPE OF WORK	SPECIFY LEVEL OF MANPOWER	RATE	NO OF HOURS	TOTAL
General project management	1XPM,1XSO		2;2	
Travelling time (one trip to site)	1XSA,1XA,1XSS,			
Cleaning of all switchgear units' components and capacitors (Internal and external)	1XA,1XSS		3;5	
Checking of all termination's	1XA		2	
Tightening of all loose contacts	1XSS		2	
Testing of all relevant instrumentation, relays, contactors, protection etc.	1XSA		6	
Detailed report for each individual switchgear and capacitor unit	1XSA		2	
Identification of obsolete switchgear	1XSA		1	
Detailed report of obsolete switchgear	1XSA		1	
Travelling time (one trip from site)	1XSA,1XA,1XSS,			
Cost of equipment to perform scope of work			•	
			Total	
Travelling				
Travelling time (1 trip to site and back)	1XT,1XGW			
Travelling time (1 trip to site and back)	1XA,1XSS			
Travelling time (2 trips to site and back)	1XT,1XA,1XSS			
			Total	
		TOTAL (excl.	VAT)	

### Transport cost for item 12.8

- Travelling to site by 1XSA, 1xA, 1xSS.
- Travelling from site by 1XSA, 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

### 12.9 SWITCHGEAR SERVICING (SPITSKOP DAM)

(Low Voltage, 400 V)

Total Distance km (1 trip to site & back) SCOPE OF WORK **SPECIFY RATE** NO OF **TOTAL LEVEL** OF **HOURS MANPOWER** General project management 1XPM;1XSO 2;2 Cleaning of all switchboard units (Internal & external) 1XA,1XSS 1;1 Checking of all termination's 1/2 1XA 1XSS 2 Tightening of all loose contacts 4 Testing of all relevant instrumentation, contactors, relays, 1XA etc. Detailed report for each individual switchgear unit 1XA 1 Identification of obsolete switchgear 1XA 1 Detailed reports of obsolete switchgear 1XA 1/2 Cost of equipment to perform scope of work Total Travelling Travelling time (to site)
Travelling time (from site) 1XA,1XSS 1XA,1XSS

TOTAL (excl. VAT)

Total

### Transport cost for item 12.9

- Travelling to site by 1xA, 1xSS.
- Travelling from site by 1xA, 1xSS.

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT

### 12.10 ACTUATOR AT TEEBUS ORANGE FISH TUNNEL DAM (SERVICE)

(200-9000Nm, SA 100 E, 100l/min)

Travelling time (1 trip to site and back) to disconnect and remove

Travelling time (1 trip to site and back) to install equipment test and

Transport of the equipment to your works for refurbishment Transport of the equipment to site after refurbishment

equipment

commission

Guesthouse

Departmental

Accommodation

Contractors Mobile (-200 CREDIT)

**SCOPE OF WORK SPECIFY RATE** NO OF **TOTAL LEVEL OF HOURS MANPOWER** 1XPM;1XSO General project management 8:8 Remove 1XA 1 Dismantle 1XA 5 2XGW Clean 1 Inspect 1XSS 1 Report 1XSS 0.2 Reassemble 1XA 5 Re-connect wiring **1SS** 2 Reset limits/calibrate 1XSS,1XA 1.5;1.5 Coat 1XSS Test certificate 1XSS 0.2 Commission 1XA 2 Cost of equipment to perform scope of work Total **Travelling Time** 

1XA

1XA

Cost

Total Distance

Total
TOTAL (excl. VAT)

Total

Meals

LOA with

LOA without

Meals

km (1 trip to site & back)

### Transport cost for item 12.10

TYPE OF VEHICLE	RATE/ KM	TOTAL DISTANCE	TOTAL AMOUNT
<u> </u>	TOTAL TRANSPORT COST		

### **SUMMARY: CENTRAL OPERATIONS**

# **CENTRAL OPERATIONS VAAL DAM AREA**

TABLE NUMBER	SUB-TOTAL (excluding VAT)
Sub Total From Item 8.1	
Sub Total From Item 8.2	
Sub Total From Item 8.3	
Sub Total From Item 8.4	
Sub Total From Item 8.5	
Sub Total From Item 8.6	
Sub Total From Item 8.7	
Sub Total From Item 8.8	
Sub Total From Item 8.9	
Sub Total Mechanical	
Sub Total From Item 8.10	
Sub Total From Item 8.11	
Sub Total From Item 8.12	
Sub Total From Item 8.13	
Sub Total From Item 8.14	
Sub Total From Item 8.15	
Sub Total Electrical	
GRAND TOTAL (excluding VAT)	
GRAND TOTAL (including VAT)	

# **CENTRAL OPERATIONS USUTU RIVER AREA**

TABLE NUMBER	SUB-TOTAL (excluding VAT)
Sub Total From Item 9.1	
Sub Total From Item 9.2	
Sub Total From Item 9.3	
Sub Total From Item 9.4	
Sub Total From Item 9.5	
Sub Total From Item 9.6	
Sub Total From Item 9.7	
Sub Total From Item 9.8	
Sub Total From Item 9.9	
Sub Total Mechanical	
Sub Total From Item 9.10	
Sub Total From Item 9.11	
Sub Total From Item 9.12	
Sub Total From Item 9.13	
Sub Total From Item 9.14	
Sub Total From Item 9.15	
Sub Total Electrical	
GRAND TOTAL (excluding VAT)	
GRAND TOTAL (including VAT)	

# **CENTRAL OPERATIONS USUTU VAAL AREA**

TABLE NUMBER	SUB-TOTAL (excluding VAT)
Sub Total From Item 10.1	
Sub Total From Item 10.2	
Sub Total From Item 10.3	
Sub Total From Item 10.4	
Sub Total From Item 10.5	
Sub Total From Item 10.6	
Sub Total From Item 10.7	
Sub Total From Item 10.8	
Sub Total From Item 10.9	
Sub Total Mechanical	
Sub Total From Item 10.10	
Sub Total From Item 10.11	
Sub Total From Item 10.12	
Sub Total From Item 10.13	
Sub Total From Item 10.14	
Sub Total From Item 10.15	
Sub Total Electrical	
GRAND TOTAL (excluding VAT)	
GRAND TOTAL (including VAT)	

# **CENTRAL OPERATIONS TUGELA VAAL AREA**

TABLE NUMBER	SUB-TOTAL (excluding VAT)
Sub Total From Item 11.1	, , , , , , , , , , , , , , , , , , ,
Sub Total From Item 11.2	
Sub Total From Item 11.3	
Sub Total From Item 11.4	
Sub Total From Item 11.5	
Sub Total From Item 11.6	
Sub Total From Item 11.7	
Sub Total From Item 11.8	
Sub Total From Item 11.9	
Sub Total Mechanical	
Sub Total From Item 11.10	
Sub Total From Item 11.11	
Sub Total From Item 11.12	
Sub Total From Item 11.13	
Sub Total From Item 11.14	
Sub Total From Item 11.15	
Sub Total Electrical	
GRAND TOTAL (excluding VAT)	
GRAND TOTAL (including VAT)	

# **CENTRAL OPERATIONS FREE STATE AREA**

TABLE NUMBER	SUB-TOTAL (excluding VAT)
Sub Total From Item 12.1	-
Sub Total From Item 12.2	
Sub Total From Item 12.3	
Sub Total From Item 12.4	
Sub Total From Item 12.5	
Sub Total From Item 12.6	
Sub Total From Item 12.7	
Sub Total Mechanical	
Sub Total From Item 12.8	
Sub Total From Item 12.9	
Sub Total From Item 12.10	
Sub Total Electrical	
GRAND TOTAL (excluding VAT)	
GRAND TOTAL (including VAT)	

Part C3: Scope of Work

C3 Scope of Work

### SCOPE OF BID

### This bid makes provision for:

- 1. A three year contract for the mechanical and other related major plant and machinery installation, maintenance, repair, refurbishment and upgrade for Central Operations (Free State, Gauteng, KwaZulu-Natal, Mpumalanga, and Northern Cape).
- 2. Other related work refers to electrical works. The contractor must also have electrical works capabilities or subcontract electrical works to suitably qualified electrical contractor(s).
- 3. The service to be provided shall include servicing, preventative maintenance, emergency repairs, refurbishment and upgrade.
- 4. The contractor shall possess: Active registration and valid grading with the Construction Industry Development Board.
  - It is estimated that tenderers must have the following CIDB contractor grading:
- a) Free State (Bloemfontein) Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.
- b) Tugela Vaal Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP
- c) Usutu River Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.
- d) Usutu Vaal and Vaal Dam Office CIDB contractor grading of 7 ME or higher. Tenderer must have demonstrable experience in associated electrical work or subcontract a CIDB contractor grading of EP.
- 5. The contractor will have substantial capacity and facilities to handle all the equipment listed in the Technical Specification and Requirements: "Sub-contractors may be appointed for specialized activities, subject to the approval of the Employer's Agent."
- 6. The Contractor shall with his submission of his bid indicate which specialist work will be sub-contracted to the specialist agents/sub-contractor. (Refer to Annexure 2: "Schedule of proposed sub-contractors").

# C4 Operational Area Offices

Below are details of the Operational Area Office covered under this bid:

### **CENTRAL OPERATIONS**

	Area Office	<u>Address</u>
1.	Usutu-Vaal and Vaal Dam	Grootdraai Dam Standerton Mpumalanga Province
2.	Usutu River	Jericho Dam Ermelo Mpumalanga
3.	Tugela Vaal	Jagersrus Bergville KwaZulu-Natal
4.	Free State (Bloemfontein)	Sanlam Plaza Bloemfontein Free State

# This bid covers sites marked in orange

