Part C2: Pricing Data

C2.1 Pricing Assumptions

(No Content)

| Part | C2: | Pricing D |)ata |
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C2.2 Pricing Schedules

INDEX

PAGE

| 1. | PRICE SCHEDULES | 160 |
|----|---|---------|
| 2. | LABOUR COSTS | 160 |
| 3. | TRANSPORT COSTS | 161 |
| 4. | SPECIFIC INSTALLATION FOR ADJUDICATION PURPOSES | 163 |
| 5. | WORKSHOP | 164 |
| 6. | FACILITIES | 164 |
| 7. | ORGANIZATIONAL CAPABILITY | 164 |
| 8. | EASTERN OPERATIONS (KWA-ZULU NATAL) MIDMAR AREA PRICING | |
| | SCHEDULES | 165-190 |

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.

| Engine swept | Sedan/station wagon | Light delivery vehicle (LDV) 4x2 | Light delivery vehicle (LDV) 4x4 | Mini bus/MPV | |
|--------------|------------------------|--|--|---------------|--|
| volume CC | А | В | С | D | |
| | From Jan 2020 | From Jan 2020 | From Jan 2020 | From Jan 2020 | |
| Up to 1250 | 277.6 | 243.0 | | 358.2 | |
| 1251 to 1550 | 345.3 | 307.3 | 417.8 | 556.2 | |
| 1551 to 1750 | 375.1 | 338.4 | 417.0 | 386.3 | |
| 1751 to 1950 | 423.7 | 389.3 | | 300.3 | |
| 1951 to 2150 | 463.6 | 407.2 | 477.7 | 451.8 | |
| 2151 to 2500 | 524.6 | 431.7 | 4//./ | 510.4 | |
| 2501 to 3500 | 657.8 | 473.2 | 548.1 | 666.8 | |
| Over 3500 | 767.9 | 508.2 | 624.6 | 757.7 | |

Petrol

Diesel

| Engine swept | Sedan/station wagon | Light delivery vehicle (LDV) 4x2 | Light delivery vehicle (LDV) 4x4 | Mini bus/MPV |
|--------------|------------------------|--|--|---------------|
| volume CC | А | В | С | D |
| | From Jan 2020 | From Jan 2020 | From Jan 2020 | From Jan 2020 |
| Up to 1250 | 263.1 | 281.0 | | |
| 1251 to 1550 | 319.8 | 366.9 | 432.7 | |
| 1551 to 1750 | 348.6 | 376.1 | 432.7 | 491.2 |
| 1751 to 1950 | 356.8 | 402.2 | | |
| 1951 to 2150 | 418.4 | 399.4 | 513.5 | |
| 2151 to 2500 | 494.6 | 420.7 | 515.5 | 608.2 |
| 2501 to 3500 | 616.8 | 426.1 | 570.2 | 641.7 |
| Over 3500 | 010.0 | 566.3 | 652.6 | 752.7 |

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 <u>relevant</u> 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.

SOUTHERN OPERATIONS PORT ELIZABETH AREA 8

BUTTERFLY VALVE – KEISKAMMAHOEK (1000mm) (Sandile) S 32° 43' 8.44" E 27° 6' 7.053" 8.1 (ELECTRICALLY OPERATED)

| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
|---|---------------------------------|------|----------------|-------|
| Inspection of equipment | 1XT,1XPM,1XSO | | 4,4,4 | |
| Travelling time (1 trip to site and back) | 1XT,1XPM | | | |
| Remove | 1XSA,2XGW | | 8,8 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Transport from site (1 trip to site and back) | 1XD,1XGW | | | |
| Dismantle | 1XSA,2XGW | | 9,9 | |
| Blast | 1XSS | | 4 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 2,2 | |
| Report | 1XSA | | 1 | |
| Re – blast | 1XA,1XSS | | 4,12 | |
| Coat (Epoxy) | 1XA,1XSS | | 2,14 | |
| Reassemble | 1XSA,2XGW | | 12,12 | |
| Pressure Test | 1XSA,1XT,2XGW | | 1,4,4 | |
| Pressure test certificate | 1XSS | | 1 | |
| Transport to site (1 trip to site and back) | 1XD,1XGW | | | |
| Install | 1XSA,2XGW | | 9,9 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Commission | 1XT,1XPM | | 6,6 | |
| Travelling time (1 trip to site and back) | 1XT,1XPM | | | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|--|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop for refurbishment (Truck 10 – 14 Ton drop-side) | | | |
| Transport equipment from your workshop to site for installation (Truck 10 – 14 Ton drop-side) | | | |
| 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

8.2 SLEEVE VALVE – LADY FRERE (1000mm) (Lubisi) S 31° 47' 47.831" E 27° 25' 57.587" (WITH MECHANICAL ACTUATOR)

| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
|---|---------------------------------|------|----------------|-------|
| Inspection of equipment | 1XT,1XSA,1XSO | | 4,4,4 | |
| Travelling time (1 trip to site and back) | 1XT,1XSA | | | |
| Remove | 1XSA,1XGW | | 9,9 | |
| Travelling time (1 trip to site and back) | 1XSA,1XGW | | | |
| Transport from site (1 trip to site and back) | 1XD,1XGW | | | |
| Dismantle | 1XSA,2XGW | | 16,16 | |
| Blast | 1XSS | | 5 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 1,3 | |
| Report | 1XSS | | 1 | |
| Re – blast | 1XSA,1XSS | | 5,15 | |
| Coat (Epoxy) | 1XSA,1XSS | | 2,14 | |
| Reassemble | 1XSA,2XGW | | 9,9 | |
| Pressure Test | 1XSS,1XSA,2XGW | | 1,3,3 | |
| Pressure test certificate | 1XSS | | 1 | |
| Transport to site (1 trip to site and back) | 1XD,1XGW | | | |
| Install | 1XSA,1XGW | | 7,7 | |
| Travelling time (1 trip to site and back) | 1XSA,1XGW | | | |
| Commission | 1XT,1XSA | | 4,4 | |
| Travelling time (1 trip to site and back) | 1XT,1XSA | | | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop for refurbishment (Truck 5 – 8 Ton with crane) | | | |
| Transport equipment from your workshop to site for installation (Truck 5 – 8 Ton with crane) | | | |
| 2500cc 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

8.3 SLEEVE VALVE – STUTTERHEIM (750mm) (Wriggleswade) S 32° 34' 44.055" E 27° 33' 41.837" (WITH ELECTRICAL ACTUATOR)

| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
|--|---------------------------------|------|----------------|-------|
| Inspection of equipment | 1XT,1XSA,1XSO | | 4,4,4 | |
| Travelling time (1 trip to site and back) | 1XSS,1XSA | | | |
| Remove | 1XSA,2XGW | | 9,9 | |
| Travelling & transport (1 trip to site and back) | 1XSA,2XGW | | | |
| Dismantle | 1XSA,2XGW | | 16,16 | |
| Blast | 1XSS | | 5 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 1,3 | |
| Report | 1XSA | | 1 | |
| Re – blast | 1XSA,1XSS | | 5,15 | |
| Coat (Epoxy) | 1XSA,1XSS | | 2,14 | |
| Reassemble | 1xSA,2XGW | | 9,9 | |
| Pressure Test | 1XSS,1xSA,2XGW | | 1,3,3 | |
| Pressure test certificate | 1XSA | | 1 | |
| Install | 1XSA,2XGW | | 7,7 | |
| Travelling & transport (1 trip to site and back) | 1xSA,2XGW | | | |
| Commission | 1XSA,1XSS | | 4,4 | |
| Travelling time (1 trip to site and back) | 1XSA,1XSS | | | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop | | | |
| 2500cc 4×2 LDV for staff to install equipment & transport equipment from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

KNIFE - GATE VALVE – QUEENSTOWN (XONXA) S 31° 50' 25.327" E 27° 10' 43.075" (10 BAR, WITH HYDRAULIC CYLINDER AND POWER PACK) 8.4

| BOUR COSTS: SCOPE OF WORK | SPECIFY | Distance RATE | | rip to site & b TOTAL |
|--|----------------------|------------------|-------|--------------------------|
| SCOPE OF WORK | LEVEL OF MANPOWER | RAIE | HOURS | TOTAL |
| Inspection of equipment | 1XT,1XSA | | 4,4 | |
| Travelling time (1 trip to site and back) | 1XT,1XSA | | | |
| Remove | 1xSA,2XGW | | 9,9 | |
| Travelling & transport (1 trip to site and back) | 1xSA,2XGW | | | |
| Dismantle | 1xSA,2XGW | | 16,16 | |
| Blast | 1XSS | | 5 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 1,3 | |
| Report | 1XSA | | 1 | |
| Re – blast | 1XSA,1XSS | | 5,15 | |
| Coat (Epoxy) | 1XSA,1XSS | | 2,14 | |
| Reassemble | 1xSA,2XGW | | 9,9 | |
| Pressure Test | 1XSS,1xSA,2XGW | | 1,3,3 | |
| Pressure test certificate | 1XSA | | 1 | |
| Install | 1XSA,2XGW | | 7,7 | |
| Strip Hydraulic cylinder | | | | |
| Replace seals | | | | |
| Hone cylinder | | | | |
| Blast exterior to specification | | | | |
| Coat exterior to specification | | | | |
| Assemble hydraulic cylinder | | | | |
| Test cylinder | | | | |
| Travelling & transport (1 trip to site and back) | 1xSA,2XGW | | | |
| Commission | 1XSS,1XSA | | 4,4 | |
| Travelling time (1 trip to site and back) | 1XSS,1XSA | | | |

TOTAL LABOUR COSTS(excl. VAT)

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop | | | |
| 2500cc 4×2 LDV for staff to install equipment & transport equipment | | | |
| from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | • | (excl. VAT) | |

| TOTAL COST: | |
|-------------|--|
|-------------|--|

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

8.5 SWITCHGEAR – PATENSIE (Kouga) S 33° 44' 31.385" E 24° 35' 9.985" (LOW VOLTAGE, 400V, 30A)

| LABOUR COSTS: | | Total Distance | km (| 1 trip to site & back) |
|---|---------------------------------|--------------------|----------------|------------------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM, 1XT,1SO | | 4,4,4 | |
| Travelling time (1 trip to site and back) | 1XPM, 1XT,1SO | | | |
| Cleaning of all switchgear units' components and capacitors (internal and external) | 1XSA,1XGW | | 8,8 | |
| Travelling time (1 trip to site and back) | 1XSA,1XGW | | | |
| Checking of all terminations | 1XSA | | 3 | |
| Tightening of all loose contacts | 1XSA | | 4 | |
| Testing of all relevant instrumentation, relays, contactors, etc. | 1XSA | | 6 | |
| Detailed report for each individual switchgear and capacitor unit | 1XSA | | 2 | |
| Identification of obsolete switchgear | 1XSA | | 1 | |
| Detailed reports of obsolete switchgear | 1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XSA,1XGW | | | |
| Commission | 1XPM,1XT,1XSA | | 4,4,4 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| | TOTAL LA | ABOUR COSTS (excl. | VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|--|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | | |
| 2500cc 4×2 LDV to test & commission | | | | |
| TOTAL TRANSPORT COSTS (excl. VAT) | | | | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

CRANE – HOFMEYER (Grassridge) S 31° 46' 10.642" E 25° 28' 21.173" (15 Ton, Service of Portal Crane) 8.6

| LABOUR COSTS: | | Total Distance | | _km (1 trip to site & back) |
|---|---------------------------------|---------------------|----------------|-----------------------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT,1XSA | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| Complete service | 1XSA,1XSS,1XGW | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XSA,1XSS,1XGW | | | |
| Inspect rotating components, brakes, structure and rope | 1XSA,1XSS | | 4,4 | |
| Load test | 1XSA,1XSS,1XGW | | 10,10,10 | |
| Set all limits | 1XSA,1XSS | | 8,8 | |
| Test reports | 1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XSA,1XSS,1XGW | | | |
| Commission | 1XPM,1XT,1XSA | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| | TOT | TAL LABOUR COSTS (6 | excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

8.7 EMERGENCY GATES – MTHATHA DAM S 31° 33' 3.371" E 28° 44' 16.02"

| SCOPE OF WORK | SPECIFY LEVEL OF | RATE | NO OF HOURS | TOTAL |
|--|------------------------|------|----------------|-------|
| la su stisu standarda da la contra | MANPOWER | | | |
| Inspection of equipment | 1XT,1XSA,1XSO | | 2,2,2 | |
| Travelling time (1 trip to site and back) | 1XT, 1XSA,1XSO | | | |
| Rough Blast and Clean Travelling time & transport (1 trip to site and back) | 1XSA,1XSS 1XSA,1XSS | | 14,14 | |
| Mechanical repair (10 m welding and 12 mm ² grinding) | 1XSA,1XA,2XGW | | 16,16,16 | |
| Final Blast to Sa 3 | 1XSA,1XSS | | 15,15 | |
| Application of corrosion protection (epxy and re-coatable polyurethane to DFT 400µm) | 1XSA,1XSS | | 40,40 | |
| Replace Seals | 1XSA,1XSS,2XGW | | 2,8,8 | |
| Inspect | 1XT,1XSA | | 1,1 | |
| Report | 1XSA | | 0.5 | |
| Replace lashing strips with stainless steel lashing strips (epoxy coat) | 1XSA,1XA,2XGW | | 2,8,8 | |
| Replace all fasteners with stainless steel fasteners (powder coat head and shank) | 1XSA,1XA,2XGW | | 2,8,8 | |
| Cost of all equipment required to perform tasks | | | | |
| Assemble | 1XSA,2XGW | | 12,12,12 | |
| Install | 1XSA,2XGW | | 4,4,4 | |
| Travelling time & transport (1 trip to site and back) | 1XSA,1XGW | | | |
| Commission | 1XT,1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XT,1XSA | | | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop | | | |
| 2500cc 4×2 LDV for staff to install equipment & transport equipment from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

OUTLET PIPES – HUMANSDORP (Impofu) <mark>S 34° 5' 43.134" E 24° 41' 35.479"</mark> (PIPELINE, 120m LONG, 1200mm DIA, MILD STEEL) 8.8

| LABOUR COSTS: | | Total Distance | | km (1 trip to site & back) |
|---|---------------------------------|-------------------|----------------|----------------------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT,1XSA | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| Rough abrasive cleaning | 1XPA,4XGW | | 7,10 | |
| Travelling time (1 trip to site and back) | 1XSA,1XSS,1XGW | | | |
| Mechanical repairs (10 m welding & 8 sq.m grinding) | 1XSS,1XPA,2XGW | | 2,11,11 | |
| Final abrasive blast Sa 3 | <mark>1XSS</mark> ,1XPA, 4XGW | | 2,7,15 | |
| Coating application (eproxy to DFT 400 microns) | 1XSS,1XPA,1XSS | | 2,14,14 | |
| Cost of equipment | 1XPM,1XSS | | | |
| Test reports | 1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XSA,1XSS,1XGW | | | |
| Commission | 1XPM,1XT,1XSA | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| | TOTA | AL LABOUR COSTS (| excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| · · · · · · · · · · · · · · · · · · · | | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

8.9 ACCOMMODATION

| | MODATION OP | | 1 | 2 | 3 | 4 | | | LOWEST DAILY COST (1 – 4) |
|--------------------------|-------------------|-------------------------|----------------|--|---|-------------------|-------------------------|---|---------------------------------|
| | | | | | IODATION WANCE | CONTRACTOR | RS MOBILE ACCOMMODATION | | |
| ITEM | NUMBER OF DAYS | NUMBER OF PERSONS | DAILY RATE* | With meals (R600 + Allowance) | Without meals (R450 + Allowance) | Cost/person/day** | Rand/km*** | Site Mobilisation & De-Mobilisation | TOTAL (Excl. VAT) |
| Item 8.1 | | | | | | | | | |
| Item 8.2 | | | | | | | | | |
| Item 8.3 | | | | | | | | | |
| Item 8.4 | | | | | | | | | |
| Item 8.5 | | | | | | | | | |
| Item 8.6 | | | | | | | | | |
| SUB TOTAL (excl. VAT) | | | | | | | | | |
| SUB TOTAL (incl. VAT) | | | | | | | | | |

*DAILY RATE means the cost of a person for each 24 hour day if own accommodation is utilised, expressed in Rand/person/day. **Cost/person/day rental for own mobile accommodation units, expressed in Rand/person/day. ***Rand/km these are transport rates to site and they include travel time and are expressed in Rand/km.

NOTE:

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- All open spaces must be completed in full.
- If option 4 is used, the contractor will be able to provide own mobile accommodation

8.10 SUMMARY PORT ELIZABETH AREA

| TABLE NUMBER | LABOUR (excl. VAT) | TRANSPORT (excl. VAT) | ACCOMMODATION (excl. VAT) | TOTAL (excl. VAT) |
|-------------------|-----------------------|--------------------------|------------------------------|----------------------|
| From Item 8.1 | | | | |
| From Item 8.2 | | | | |
| From Item 8.3 | | | | |
| From Item 8.4 | | | | |
| From Item 8.5 | | | | |
| From Item 8.6 | | | | |
| From Item 8.7 | | | XXXXXXXXXXXXXXX | |
| From Item 8.8 | | | XXXXXXXXXXXXXXX | |
| TOTAL (excl. VAT) | | | | |
| TOTAL (incl. VAT) | | | | |

9 SOUTHERN OPERATIONS WORCESTER AREA

9.1 **BUTTERFLY VALVE – WOLWEDANS DAM** (DN 1600, MANUALLY OPERATED) 9 Ton

S 34° 00' 49.2" E 22° 13' 52.2"

| BOUR COSTS: | | Distance | km (1 trip to s | / |
|---|---------------------------------|----------|-----------------|-------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XT,1XPM,1XSA, 1XSO | | 4,4,4,4 | |
| Travelling time (1 trip to site and back) | 1XT,1XPM,1XSO | | | |
| Remove | 1XSA,2XGW | | 8,8 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Transport from site (1 trip to site and back) | 1XD,1XGW | | | |
| Dismantle | 1XSA,2XGW | | 9,9 | |
| Blast | 1XSS | | 4 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 2,2 | |
| Report | 1XSA | | 1 | |
| Re – blast | 1XA,1XSS | | 4,12 | |
| Coat (Epoxy) | 1XA,1XSS | | 2,14 | |
| Reassemble | 1XSA,2XGW | | 12,12 | |
| Pressure Test | 1XSA,1XT,2XGW | | 1,4,4 | |
| Pressure test certificate | 1XSA | | 1 | |
| Transport to site (1 trip to site and back) | 1XD,1XGW | | | |
| Install | 1XSA,2XGW | | 9,9 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Commission | 1XT,1XPM | | 6,6 | |
| Travelling time (1 trip to site and back) | 1XT,1XPM | | | |

I)

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|--|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop for refurbishment (Truck 10 – 14 Ton drop-side) | | | |
| Transport equipment from your workshop to site for installation (Truck 10 – 14 Ton drop-side) | | | |
| 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.2 BUTTERFLY VALVE – CLAN WILLIAM DAM

(DN 900, MANUALLY OPERATED) 3 Ton

<mark>S 32° 11' 05.9" E 18° 52' 29.5"</mark>

| BOUR COSTS: | Total | Distance | km (1 trip t | o site & back) |
|---|---------------------------------|----------|----------------|----------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT,1XSA, | | 4,4,4,4 | |
| | 1XSO | | | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA, | | | |
| Dack) | 1XSO | | | |
| Remove | 1XSA,1XGW | | 8,8 | |
| Travelling time (1 trip to site and back) | 1XSA,1XGW | | | |
| Transport from site (1 trip to site and | 1XD,1XGW | | | |
| back) | | | | |
| Dismantle | 1XSA,2XGW | | 9,9 | |
| Blast | 1XSS | | 4 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 2,2 | |
| Report | 1XSA | | 1 | |
| Re – blast | 1XA,1XSS | | 4,12 | |
| Coat (Epoxy) | 1XA,1XSS | | 2,14 | |
| Reassemble | 1XSA,2XGW | | 12,12 | |
| Pressure Test | 1XSS,1XSA,2XGW | | 1,4,4 | |
| Pressure test certificate | 1XSA | | 1 | |
| Transport to site (1 trip to site and back) | 1XD,1XGW | | | |
| Install | 1XSA,1XGW | | 9,9 | |
| Travelling time (1 trip to site and back) | 1XPM,1XSA,1XGW | | | |
| Commission | 1XPM,1XT,1XSA | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|--|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop for refurbishment (Truck 5 – 8 Ton drop-side) | | | |
| Transport equipment from your workshop to site for installation (Truck 5 – 8 Ton drop-side) | | | |
| 2500cc 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.3 SLEEVE VALVE – FLORISKRAAL DAM

<mark>S 33° 17' 28.8" E 20° 59' 24.2"</mark>

(DN 610, with Electric actuator) 11/2 Ton

| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
|---|---------------------------------|------|----------------|-------|
| Inspection of equipment | 1XPM,1XT,1XSA, | | 4,4,4,4 | |
| Travelling time (1 trip to site and back) | 1XSO 1XPM,1XT,1XSA, 1XSO | | | |
| Remove | 1XSA,1XGW | | 9,9 | |
| Travelling time (1 trip to site and back) | 1XSA,1XGW | | | |
| Transport from site (1 trip to site and back) | 1XD,1XGW | | | |
| Dismantle | 1XSA,2XGW | | 16,16 | |
| Blast | 1XSS | | 5 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 1,3 | |
| Report | 1XSA | | 1 | |
| Re – blast | 1XSA,1XSS | | 5,15 | |
| Coat (Epoxy) | 1XSA,1XSS | | 2,14 | |
| Reassemble | 1XSA,2XGW | | 9,9 | |
| Pressure Test | 1XSS,1XSA,2XGW | | 1,3,3 | |
| Pressure test certificate | 1XSA | | 1 | |
| Transport to site (1 trip to site and back) | 1XD,1XGW | | | |
| Install | 1XSA,1XGW | | 7,7 | |
| Travelling time (1 trip to site and back) | 1XPM,1XSA,1XGW | | | |
| Commission | 1XPM,1XT,1XSA | | 4,4,4 | |
| Travelling time (1 trip to site and | 1XPM,1XT,1XSA | | | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop for refurbishment (Truck 5 – 8 Ton with crane) | | | |
| Transport equipment from your workshop to site for installation (Truck 5 – 8 Ton with crane) | | | |
| 2500cc 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.4 SLEEVE VALVE – VOELVLEI DAM

<mark>S 33° 20' 33.0" E 19° 01' 39.6"</mark>

(DN 381, with Electric actuator) 1/2 Ton

| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
|--|---------------------------------------|-----------------|----------------|-------|
| Inspection of equipment | 1XPM,1XT,1XSA, 1XSO | | 4,4,4,4 | |
| Travelling time (1 trip to site and back) | 1XPM, <mark>1XT</mark> ,1XSA, 1XSO | | | |
| Remove | 1XSA,2XGW | | 9,9 | |
| Travelling & transport (1 trip to site and back) | 1XSA,2XGW | | | |
| Dismantle | 1XSA,2XGW | | 16,16 | |
| Blast | 1XSS | | 5 | |
| Clean | 1XGW | | 3 | |
| Inspect | 1XSS,1XSA | | 1,3 | |
| Report | 1XSA | | 1 | |
| Re – blast | 1XSA,1XSS | | 5,15 | |
| Coat (Epoxy) | 1XSA,1XSS | | 2,14 | |
| Reassemble | 1xSA,2XGW | | 9,9 | |
| Pressure Test | 1XSS,1xSA,2XGW | | 1,3,3 | |
| Pressure test certificate | 1XSA | | 1 | |
| Install | 1XSA,2XGW | | 7,7 | |
| Travelling & transport (1 trip to site and back) | 1XSA,2XGW | | | |
| Commission | 1XPM,1XSS,1XSA | | 4,4,4 | |
| Travelling time (1 trip to site and back) | 1XPM,1XSS,1XSA | | | |
| | T | OTAL LABOUR COS | TS (excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|--|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop 2500cc 4×2 LDV for staff to install equipment & transport equipment from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.5 GATE VALVE – THEEWATERKLOOF DAM

<mark>S 34° 04' 33.0" E 19° 17' 19.2"</mark>

(DN 400, MANUALLY OPERATED) 1/2 Ton

| LABOUR COSTS: | - | Total Distance | km (1 trip | o to site & back) |
|---|-------------------------------------|-----------------|----------------|-------------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWE R | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT, <mark>1XSS</mark> | | 2,2,2 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT, <mark>1XSS</mark> | | | |
| Remove | 1XSA,1XGW | | 3,3 | |
| Travelling time & transport (1 trip to site and back) | 1XSA,1XGW | | | |
| Dismantle in workshop | 1XSA | | 5 | |
| Clean | 2XGW | | 2 | |
| Inspect | 1XT, <mark>1XSS</mark> | | 1,1 | |
| Report | 1XSS | | 0.5 | |
| Reassemble | 1XSA | | 5 | |
| Reset limits/calibrate | 1XSA,1XSS | | 1,1 | |
| Coat | 1XSS | | 1 | |
| Test certificate | 1XSS | | 1 | |
| Install | 1XSA,1XGW | | 4,4 | |
| Travelling time & transport (1 trip to site and back) | 1XSA,1XGW | | | |
| Commission | 1XPM,1XT,1XSS | 1 | 1,1,1 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT, <mark>1XSS</mark> | | | |
| | TC | TAL LABOUR COST | S (excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop | | | |
| 2500cc 4×2 LDV for staff to install equipment & transport equipment from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.6 SUBMERSIBLE PUMP – BERG-RIVER DAM

(CENTRIFUGAL, SUBMERSIBLE PUMP 3,6kW) 1/2 Ton

S 33° 54' 26.1" E 19° 03' 20.2"

LABOUR COSTS: **Total Distance** km (1 trip to site & back) SCOPE OF WORK SPECIFY RATE NO OF TOTAL HOURS LEVEL OF MANPOWER Inspection of equipment 1XPM,1XT,1XSA, 2,2,2,2 1XSO Travelling time (1 trip to site and back) 1XPM,1XT,1XSA, 1XSO Uncouple coupling and loosen 1XSA,2XGW 2,2 pipework Travelling time & transport equipment 1XSA,2XGW (1 trip to site and back) 1XSA,2XGW 2,2 Remove pump Dismantle in Workshop 1XSA,2XGW 4,4 Rough blast and clean pump and piping 2XGW 3 Inspect 1XT,1XSA 1 Report 1XSA 1 Final blast to Sa3 1XSA.1XSS 1.3 Coat internally (epoxy-minimum DFT of 1XSA,1XSS 2,6 400µm) Replace shaft and impeller with new 1XSA,1XGW 1,1 Stainless Steel shaft Replace impeller with new Stainless 1XSA,1XGW 1,1 Steel impeller 1XSA,1XGW Replace all brass sleeves with new 1,1 brass sleeves Balancing of assembled impeller plus 1XT.1XSA 2.2 test reports Replace existing wearing rings with two 1XSA,1XGW 1,1 new Brass wearing rings (include new brass bolts) 1XSA,1XGW Replace packing 1,1 Fit parts and reassemble pump 1XSA,1XGW 2,2 Coat pump externally to existing colour code to minimum DFT of 300µm (epoxy 1XSA,1XSS 2,6 and recoatable polyurethane) Supply test report 1XSA 2 Install and couple pump 1XSA,2XGW 5,5 1XT,1XGW 2,2 Test run 1XSA,2XGW

TOTAL LABOUR COSTS (excl. VAT)

3,3,3

TRANSPORT COSTS:

(1 trip to site and back)

Commission

Travelling time & transport equipment

Travelling time (1 trip to site and back)

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop | | | |
| 2500cc 4×2 LDV for staff to install equipment & transport equipment from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL COST | | (excl. VAT) | |

1XPM,1XT,1XSA

1XPM,1XT,1XSA

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.7 BOOSTER PUMP – MOORDKRUIL PUMP STATION **S 34° 03' 10.1" E 22° 08' 06.8"**

(CENTRIFUGAL, PUMP, 30kW) ¾ Ton

| BOUR COSTS: | | Total Distance | | site & back) |
|--|---------------------------------|----------------|----------------|--------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| nspection of equipment | 1XT,1XPM,1XSA, 1XSO | | 2,2,2,2 | |
| Travel time (1 trip to site & back) | 1XT,1XPM,1XSA, 1XSO | | | |
| Uncouple coupling and loosen pipe work | 1XSA,2XGW | | 3,3 | |
| Travel time (1 trip to site and back & transport equipment) | 1XSA,2XGW | | | |
| Remove pump | 1XSA,2XGW | | 2,2 | |
| Dismantle in Workshop | 1XSA,2XGW | | 6,6 | |
| Rough blast and clean pump and piping | 2XGW | | 4 | |
| nspect | 1XSA | | 2 | |
| Report | 1XSA | | 1 | |
| Final blast to Sa3 | 1XSA,1XSS | | 1,4 | |
| Coat internally (epoxy-minimum DFT of 400μm) | 1XSA,1XSS | | 2,6 | |
| Replace shaft and impeller with new Stainless Steel shaft impeller | 1XSA,1XGW | | 2,2 | |
| Replace all brass sleeves with new prass sleeves | 1XSA,1XGW | | 1,1 | |
| Balancing of assembled impeller blus test reports | 1XSA,1XGW | | 2,2 | |
| Replace existing wearing rings with wo new Brass wearing rings (include new brass bolts) | 1XSA,1XGW | | 4,4 | |
| Replace packing, fit parts and reassemble pump | 1XSA,1XGW | | 3,3 | |
| Coat pump externally to existing colour code to minimum DFT of 300µm (epoxy and recoatable colyurethane) | 1XSA,1XSS | | 1,6 | |
| Supply test report | 1XSA | | 1 | |
| nstall and couple pump | 1XSA,2XGW | | 5,5 | |
| Align with laser | 1XSA,1XGW | | 1,1 | |
| Test run | 1XSA | | 3 | |
| Travel time (1 trip to site and back & transport equipment) | 1XSA,2XGW | | | |
| Commission | 1XT,1XPM,1XSA | | 6,6,6 | |
| Travel time (1 trip to site & back) | 1XT,1XPM,1XSA | | | |

TOTAL LABOUR COSTS (excl. VAT)

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop | | | |
| 2500cc 4×2 LDV for staff to install equipment & transport equipment from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | • | (excl. VAT) | |

9.8 SWITCHGEAR – BRANDVLEI

(LOW VOLTAGE, 400V, 3200A)

<mark>S 33° 41' 28.9" E 19° 25' 58.1"</mark>

| | Total Distance | km (1 trip t | o site & back) |
|--|---|---|--|
| SPECIFY LEVEL OF MANPOW ER | RATE | NO OF HOURS | TOTAL |
| 1XPM, 1XT, <mark>1XSS</mark> | | 4,4,4 | |
| 1XPM, 1XT, <mark>1XSS</mark> | | | |
| <mark>1XSA</mark> ,1XGW | | 8,8 | |
| <mark>1XSA</mark> ,1XGW | | | |
| <mark>1XSA</mark> | | 3 | |
| | | 4 | |
| 1XSA | | 6 | |
| <mark>1XSA</mark> | | 2 | |
| <mark>1XSA</mark> | | 1 | |
| 1XSA | | 1 | |
| 1XSA,1XGW | | | |
| 1XPM,1XT, <mark>1X</mark> <mark>SA</mark> | | 4,4,4 | |
| 1XPM,1XT, <mark>1X</mark> SA | | | |
| | LEVEL OF MANPOW ER 1XPM, 1XT,1XSS 1XPM, 1XT,1XSS 1XSA,1XGW 1XSA,1XGW 1XSA,1XGW 1XSA 1XSA 1XSA 1XSA 1XSA 1XSA 1XSA 1XSA | SPECIFY RATE LEVEL OF MANPOW ER 1XPM, 1XT,1XSS 1XPM, 1XT,1XSS 1XSA, 1XSA,1XGW 1XSA 1XSA 1XSA 1XSA,1XGW 1XSA | SPECIFY LEVEL OF MANPOW ERRATENO OF HOURS1XPM, 1XT,1XSS4,4,41XPM, 1XT,1XSS4,4,41XPM, 1XT,1XSS11XSA,1XGW8,81XSA,1XGW8,81XSA31XSA41XSA61XSA21XSA11XSA11XSA11XSA4,4,41XSA4,4,41XSA11XSA4,4,41XPM,1XT,1X4,4,4 |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.9 CRANE – GAMKAPOORT

S 33° 18' 34.2" E 21° 37' 58.7"

(15 Ton, Service of Overhead Crane)

| LABOUR COSTS: | | Total Distance | km (1 trip | o to site & back) |
|---|---------------------------------|--------------------|----------------|-------------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT,1XSA, 1XSO | | 6,6,6,6 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA, 1XSO | | | |
| Complete service | 1XSA,1XSS,1XG W | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XSA,1XSS,1XG W | | | |
| Inspect rotating components, brakes, structure and rope | 1XSA,1XSS | | 4,4 | |
| Load test | 1XSA,1XSS,1XG W | | 10,10,10 | |
| Set all limits | 1XSA,1XSS | | 8,8 | |
| Test reports | 1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XSA,1XSS,1XG W | | | |
| Commission | 1XPM,1XT,1XSA | | 6,6,6 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| | | TOTAL LABOUR COSTS | (excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|------------|------------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | | |
| 2500cc 4×2 LDV for staff to service equipment | | | | |
| 2500cc 4×2 LDV to test & commission | | | | |
| | TOTAL TRAN | COODT COCT | | |

TOTAL TRANSPORT COSTS (excl. VAT)

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.10 SCREENS – FLORISKRAAL DAM

<mark>S 33° 17' 28.8" E 20° 59' 24.2"</mark>

(Trash racks, 3000X2500XAnodised Aluminium) 10 Ton

| LABOUR COSTS: | | Total Distance | km (1 trip to site & back | |
|---|---------------------------------|----------------|---------------------------|-------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT,1XSA, 1XSO | | 5,5,5 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA, 1XSO | | | |
| Remove | 1XSS,1XSA,2XGW | | 8,8,8 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Dismantle in workshop | 1XSA,1XGW | | 24,24 | |
| Clean | 1XGW | | 16 | |
| Inspect | 1XT,1XSA | | 1 | |
| Report | 1XSA | | 1 | |
| Repair | 1XSA,1XGW | | 16,16 | |
| Corrosion Protect | 1XSA,1XSS | | 16,16 | |
| Assemble | 1XSA,1XSS | | 16,16 | |
| Test reports | 1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Commission | 1XPM,1XT,1XSA | | 8,8,8 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| | | TOTAL LABOUR (| COSTS (excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop (Truck 10 – 14 Ton with crane) | | | |
| Transport equipment from your workshop to site (Truck 10 – 14 Ton with crane) | | | |
| 2500cc 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.11 STOP LOGS – STOMPDRIFT DAM

(Service gate, 3000X2500) 7 Ton

<mark>S 33° 30' 43.6" E 22° 35' 12.9"</mark>

| BOUR COSTS: | | Total Distance | km (1 trip to | site & back) |
|---|---------------------------------|----------------|----------------|--------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT,1XSA, 1XSO | | 4,4,4,4 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA, 1XSO | | | |
| Remove | 1XSS,1XSA,2XGW | | 8,8,8 | |
| Travelling time (1 trip to site and back) | 1XSS,1XSA,2XGW | | | |
| Transport equipment to workshop (1 trip to site and back) | 1XD,1XGW | | | |
| Dismantle in workshop | 1XSA,2XGW | | 12,12 | |
| Rough Blast and clean | 1XSA,1xSS | | 14,14 | |
| Inspect | 1XPM,1XSA | | 3,3 | |
| Report | 1XSA | | 2 | |
| Mechanical repair (10 m welding and 12m ² grinding) | 1XSS,1XSA,2XGW | | 16,16,16 | |
| Final Blast to Sa 3 | 1XSA, 1XSS | | 15,15 | |
| Application of corrosion protection (epoxy and recoatable polyurethane to DFT 400 µm) | 1XSA,1XSS | | 40,40 | |
| Replace seals | 1XSS,1XSA,2XG W | | 2,8,8 | |
| Replace lashing strips with stainless steel lashing strips (epoxy coat) | 1XSS,1XSA,2XG W | | 2,8,8 | |
| Replace all fasteners with stainless steel fasteners (powder coat head and shank) | 1XSS,1XSA,2XG W | | 2,8,8 | |
| Assemble | 1XSA,2XGW | | 12,12 | |
| Transport equipment to site (1 trip to site and back) | 1XD,1XGW | | | |
| Install | 1XSS,1XSA,2XG W | | 8,8,8 | |
| Travelling time (1 trip to site and back) | 1XSS,1XSA,2XG W | | | |
| Commission and Report | 1XPM,1XT,1XSA | | 8,8,8 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |

TOTAL LABOUR COSTS

(excl. VAT)

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|--|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop (Truck 5 – 8 Ton drop-side) | | | |
| Transport equipment from your workshop to site (Truck 5 – 8 Ton drop-side) | | | |
| 2500cc 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.12 ELECTRICAL ACTUATOR – BULSHOEK DAM S 31° 59' 46.0" E 18° 47' 13.1"

(200-9000Nm, SA100E, 180l/min) 1/2 Ton

| LABOUR COSTS: | | Total Distance | km (| 1 trip to site & back) |
|---|--|----------------|---------------------|------------------------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPO WER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XSA ,1XSO | | 5,5,5 | |
| Travelling time (1 trip to site and back) | 1XPM,1XSA ,1XSO | | | |
| Remove | 1XSA,1XG W | | 2,2 | |
| Travelling time (1 trip to site and back) | 1XSA,1XG W | | | |
| Dismantle in workshop | 1XSA,1XG W | | 2,2 | |
| Clean | 1XGW | | 16 | |
| Inspect | 1XT,1XSA | | 1 | |
| Report | 1XSA | | 1 | |
| Repair | 1XSA,1XG W | | 2,2 | |
| Corrosion Protect | 1XSA,1XSS | | 4,4 | |
| Reassemble | 1XSA,1XSS | | 2,2 | |
| Reconnect wiring | 1XSA,1XSS | | 2,2 | |
| Reset limits/calibrate | 1XSA,1XSS | | 2,2 | |
| Test | 1XSA | | 1 | |
| Test certificate | 1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XSA,1XG W | | | |
| Commission | 1XPM,1XSA | | 8,8 | |
| Travelling time (1 trip to site and back) | 1XPM,1XSA | | | |
| | | TOTAL LABOUR C | OSTS (excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|--|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment & transport equipment from site to your workshop | | | |
| 2500cc 4×2 LDV for staff to install equipment & transport equipment from workshop to site | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.13 TRANSFORMERS – DRANKENSTEIN PUMP STATION S 33° 50' 18.8" E 18° 59' 47.6"

| LABOUR COSTS: | | Total Distance | km (1 trip to site & back) | |
|---|---------------------------------|-----------------|----------------------------|-------|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL |
| Inspection of equipment | 1XPM,1XT,1XSA, 1XSO | | 3,3,3,3 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA, 1XSO | | | |
| Remove | 1XSA,2XGW | | 2,2 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Transport equipment (1 trip to site & back) | 1XD,1XGW | | | |
| Dismantle in workshop | 1XSA,1XGW | | 5,5 | |
| Clean | 1XGW | | 6 | |
| Inspect | 1XT,1XSA | | 1,1 | |
| Report | 1XSA | | 1 | |
| Repair | 1XSA,1XGW | | 16,16 | |
| Corrosion Protect | 1XSA,1XSS | | 16,16 | |
| Assemble | 1XSA,1XSS | | 8,8 | |
| Test reports | 1XSA | | 1 | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | |
| Commission | 1XPM,1XT,1XSA | | 8,8,8 | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | |
| | | TOTAL LABOUR CO | OSTS | |
| | | | (excl. VAT) | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop (Truck 5 – 8 Ton with crane) | | | |
| Transport equipment from your workshop to site (Truck 5 – 8 Ton with crane) | | | |
| 2500cc 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.14 ELECTRICAL MOTOR – BRANDVLEI PUMP STATION

<mark>S 33° 41' 28.9" E 19° 25' 58.1"</mark>

(SQUIRREL CAGE, INDUCTION MOTOR, 300kW, STAR-DELTA, 1500RPM, 50Hz) 2 Ton

| BOUR COSTS: | | Total Distance | | n (1 trip to site & back) | |
|---|---------------------------------|----------------|----------------|---------------------------|--|
| SCOPE OF WORK | SPECIFY LEVEL OF MANPOWER | RATE | NO OF HOURS | TOTAL | |
| Inspection of equipment | 1XPM,1XSA,1XS O | | 5,5,5 | | |
| Travel time (1 trip to site and back) | 1XPM,1XSA,1XS O | | | | |
| Remove | 1XSA,2XGW | | 8,8 | | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | | |
| Transport equipment (1 trip to site & back) | 1XD,1XGW | | | | |
| Dismantle in workshop | 1XSA,1XGW | | 2,2 | | |
| Clean | 1XGW | | 6 | | |
| Inspect | 1XT,1XSA | | 2,2 | | |
| Report | 1XSA | | 1 | | |
| Rewind stator | 1XSA,1XSS | | 24,24 | | |
| Check motor heaters | 1XSA,1XSS | | 1,1 | | |
| Bearing RTD's & thermistors | 1XSA,1XSS | | 1,1 | | |
| Replace bearings (DE & NDE) | 1XSA,1XSS | | 2,2 | | |
| Re-balance rotor shaft | 1XSA,1XSS | | 4,4 | | |
| Check shaft extension run-out | 1XSA,1XSS | | 1,1 | | |
| Assemble | 1XSA,1XSS | | 1,1 | | |
| Performance test | 1XSA,1XSS | | 3,3 | | |
| Routine test (no-load & short circuit) | 1XSA,1XSS | | 1,1 | | |
| Megger test | 1XSA,1XSS | | 1,1 | | |
| Check winding resistance | 1XSA,1XSS | | 1,1 | | |
| Corrosion Protect | 1XSA,1XSS | | 16,16 | | |
| Test reports before & after | 1XSA | | 1 | | |
| Laser align | 1XSA,1XSS | | 3,3 | | |
| Travelling time (1 trip to site and back) | 1XSA,2XGW | | | | |
| Commission | 1XPM,1XT,1XSA | | 2,2,2 | | |
| Travelling time (1 trip to site and back) | 1XPM,1XT,1XSA | | | | |

TRANSPORT COSTS:

| TYPE OF VEHICLE | RATE/km | TOTAL DISTANCE | TOTAL AMOUNT |
|---|---------|-------------------|-----------------|
| Inspection using 2500cc 4×2 LDV | | | |
| 2500cc 4×2 LDV for staff to remove equipment | | | |
| Transport equipment from site to your workshop (Truck $5 - 8$ Ton with crane) | | | |
| Transport equipment from your workshop to site (Truck $5 - 8$ Ton with crane) | | | |
| 2500cc 4×2 LDV for staff to install equipment | | | |
| 2500cc 4×2 LDV to test & commission | | | |
| TOTAL TRANSPORT COSTS | | (excl. VAT) | |

| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (excl. VAT) | |
|--|-------------|--|
| TOTAL LABOUR COSTS + TOTAL TRANSPORT COSTS | (incl. VAT) | |

9.15 ACCOMMODATION

| ACCOMMODATION OPTIONS | | 1 | 2 | 3 | | 4 | | LOWEST DAILY COST (1 – 4) | |
|--------------------------|-------------------|-------------------------|----------------|--|---|----------------------------------|------------|---|----------------------|
| ITEM | NUMBER OF DAYS | NUMBER OF PERSONS | DAILY RATE* | ACCOMMODATION ALLOWANCE | | CONTRACTORS MOBILE ACCOMMODATION | | | (, -7) |
| | | | | With meals (R600 + Allowance) | Without meals (R450 + Allowance) | Cost/person/day** | Rand/km*** | Site Mobilisation & De-Mobilisation | TOTAL (Excl. VAT) |
| Item 9.1 | 12 | 5 | | | | | | | |
| Item 9.2 | 10 | 5 | | | | | | | |
| Item 9.3 | 8 | 4 | | | | | | | |
| Item 9.4 | 4 | 4 | | | | | | | |
| Item 9.12 | 4 | 6 | | | | | | | |
| Item 9.14 | 6 | 5 | | | | | | | |
| SUB TOTAL (excl. VAT) | | | | | | | | | |
| SUB TOTAL (incl. VAT) | | | | | | dation is utilized over | | | |

*DAILY RATE means the cost of a person for each 24 hour day if own accommodation is utilised, expressed in Rand/person/day.

**Cost/person/day rental for own mobile accommodation units, expressed in Rand/person/day.

***Rand/km these are transport rates to site and they include travel time and are expressed in Rand/km.

NOTE:

• All open spaces must be completed in full.

• If option 4 is used, the contractor will be able to provide own mobile accommodation

9.16 SUMMARY WORCESTER AREA

| TABLE NUMBER | LABOUR (excl. VAT) | TRANSPORT (excl. VAT) | ACCOMMODATION (excl. VAT) | TOTAL (excl. VAT) |
|-------------------|-----------------------|--------------------------|------------------------------|----------------------|
| From Item 9.1 | | | | |
| From Item 9.2 | | | | |
| From Item 9.3 | | | | |
| From Item 9.4 | | | | |
| From Item 9.5 | | | XXXXXXXXXXXXXXX | |
| From Item 9.6 | | | XXXXXXXXXXXXXXX | |
| From Item 9.7 | | | XXXXXXXXXXXXXXX | |
| From Item 9.8 | | | XXXXXXXXXXXXXXX | |
| From Item 9.9 | | | XXXXXXXXXXXXXX | |
| From Item 9.10 | | | XXXXXXXXXXXXXXX | |
| From Item 9.11 | | | XXXXXXXXXXXXXXX | |
| From Item 9.12 | | | | |
| From Item 9.13 | | | XXXXXXXXXXXXXXX | |
| From Item 9.14 | | | | |
| TOTAL (excl. VAT) | | | | |
| TOTAL (incl. VAT) | | | | |