



NGAKA MODIRI MOLEMA DISTRICT MUNICIPALITY

TENDER NO: NMMDM 24/25/12 PWBS

PANEL OF NOT MORE THAN FIVE (05) CONTRACTORS FOR THE MECHANICAL REPAIRS, REPLACEMENT, SERVICE & MAINTENANCE OF WATER ENGINE, GENERATORS, MODIFICATION OF ENGINE STANDS, STORAGE TANK STANDS, SEALING OF STEEL STORAGE TANKS, CONCRETE/PRECAST STORAGE TANKS, CONSTRUCTION OF PUMP HOUSES AND FENCING AND EMERGENCY SUPPLY OF WATER ENGINES ON AN AS WHEN REQUIRED BASIS FOR THE PERIOD OF THREE (03) YEARS

TENDER SUBMITTED BY (DIRECTOR):

NAME OF BIDDING COMPANY:

BUSINESS ADDRESS:

.....
.....

TEL. / CELL NUMBER:

E-MAIL ADDRESS:

ISSUED BY:

Municipal Manager
Ngaka Modiri Molema District Municipality
Private Bag X 2167
Mahikeng
2745
Tel: (018) 381 9400

CLOSING DATE: 03 MARCH 2025 @ 11H00AM

CONTENTS OF THIS DOCUMENT

	<u>PAGE(S)</u>
Invitation to Bid -----	03
Part A Form -----	04
Part B Form -----	05
List of Returnables -----	06 - 07
Bid Requirements -----	08
Signatory Authorization -----	09
MBD 4 -----	10 – 12
MBD 5 -----	13 - 14
MBD 6.1 -----	15 - 18
MBD 7.2 -----	19 - 20
MBD 8 -----	21 - 22
MBD 9 -----	23 – 25
Scope of Work & Terms of Reference -----	26
Special Conditions of a Contract -----	27
Functionality -----	28
Pricing Schedule -----	29 - 50
Additional Specification -----	50 - 55
Summary of Tables (Costs) -----	56 - 57

INVITATION TO BID:

Tenders are hereby invited from prospective bidders for: **PANEL OF NOT MORE THAN FIVE (05) CONTRACTORS FOR THE MECHANICAL REPAIRS, REPLACEMENT, SERVICE & MAINTENANCE OF WATER ENGINE, GENERATORS, MODIFICATION OF ENGINE STANDS, STORAGE TANK STANDS, SEALING OF STEEL STORAGE TANKS, CONCRETE/PRECAST STORAGE TANKS, CONSTRUCTION OF PUMP HOUSES AND FENCING AND EMERGENCY SUPPLY OF WATER ENGINES ON AN AS WHEN REQUIRED BASIS FOR THE PERIOD OF THREE (03) YEARS**

TENDER DOCUMENTS

Detailed bids documents are obtainable on e-tender (www.etenders.gov.za) and www.nmmdm.gov.za

CLOSING TIME AND PLACE

Tenders, completed as prescribed, shall be sealed in an envelope marked "**PANEL OF NOT MORE THAN FIVE (05) CONTRACTORS FOR THE MECHANICAL REPAIRS, REPLACEMENT, SERVICE & MAINTENANCE OF WATER ENGINE, GENERATORS, MODIFICATION OF ENGINE STANDS, STORAGE TANK STANDS, SEALING OF STEEL STORAGE TANKS, CONCRETE/PRECAST STORAGE TANKS, CONSTRUCTION OF PUMP HOUSES AND FENCING AND EMERGENCY SUPPLY OF WATER ENGINES ON AN AS WHEN REQUIRED BASIS FOR THE PERIOD OF THREE (03) YEARS**" deposited in the tender box at the Ngaka Modiri Molema District Municipality, Cnr First Avenue and Carrington Street, Industrial site, Mafikeng, to reach its destination not later than **11h00 on 03 MARCH 2025**, when the tenders shall be opened in public.

Bids will be adjudicated based on the Preferential Procurement Regulations 2022 using compliance, functionality and 90/10 points system.

The attention of tenderers is specifically drawn to the special conditions of contract and the project specifications issued with the tender documents.

The NMMDM is not committed to accept the lowest or any tender or to submit a reason for the rejection or non-acceptance of a tender.

The validity period for this tender is 90 days.

CIDB GRADING – 7ME or Higher

ENQUIRIES

Any enquiries regarding the bidding procedure may be directed to Mr P. Tauetsile (018) 381 9400, e-mail tauetsilep@nmmdm.gov.za / Ms B.D Mokate (018 381 9400) , e-mail mokateb@nmmdm.gov.za / Ms T. Manyeneng (018 381 9400), e-mail manyenengt@nmmdm.gov.za
Any enquiries regarding technical information may be directed to Mr M. Senwedi / Mr. M. Manonyane (+27 18 381 9400), e-mail senwedim@nmmdm.gov.za / manonyanem@nmmdm.gov.za

SIGNED.

MR. O.A LOSABA

MUNICIPAL MANAGER

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF MUNICIPALITY/ MUNICIPAL ENTITY)			
BID NUMBER:		CLOSING DATE:	CLOSING TIME:
DESCRIPTION			

THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7.2).

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS

SUPPLIER INFORMATION

NAME OF BIDDER			
POSTAL ADDRESS			
STREET ADDRESS			
TELEPHONE NUMBER	CODE	NUMBER	
CELLPHONE NUMBER			
FACSIMILE NUMBER	CODE	NUMBER	
E-MAIL ADDRESS			
VAT REGISTRATION NUMBER			
TAX COMPLIANCE STATUS	TCS PIN:	OR	CSD No:
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	R
SIGNATURE OF BIDDER	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT		CONTACT PERSON	
CONTACT PERSON		TELEPHONE NUMBER	
TELEPHONE NUMBER		FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	
E-MAIL ADDRESS			

**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.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER 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 THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE 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	FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
2.5	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.6	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.7	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 ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.5.	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO
IF THE ANSWER IS “NO” TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.	

**NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.
NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.**

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

LIST OF RETURNABLE DOCUMENTS

1. Proof of Central Suppliers Database (CSD) registration
2. A signed Joint Venture Agreement (In case of a Joint Venture)
3. Municipal Rates and Taxes Statements of all the Directors
 - Municipal rates and taxes statement not older than three months from the date of tender closure and not owing more than three months (90 days) for each directors' address must be attached; or
 - Valid lease agreement of the director/s (showing lease period) or,
 - Should the director/s residing in rural area, letter from the Tribal Authority (a copy) not older than three (3) months should be provided.
 - If the rates and taxes account are not in the names of the director/s the attached municipal rates and taxes statement not owing more than three months (90 days) must be submitted together with an original affidavit from the director of the company to confirm that the director resides on the property.
 - The address that appears on the rates statement must correspond to the address on the CSD.
4. Municipal Rates and Taxes Statements of the Company
 - Municipal rates and taxes statement not older than three months from the date of closure and not owing more than three months (90 days) for the company's' address must be attached; or
 - Valid lease agreement of the company (showing lease period), or
 - Should the company operating in rural area, letter from the tribal authority (a copy) not older than three (3) months should be provided.
 - If the rates and taxes account are not in the names of the company, the attached municipal rates taxes statement not owing more than three months (90 days) must be submitted together with an original affidavit from the director of the company confirming that the company operates from the property.
 - The address that appears on the rates statement must correspond to the address on the CSD.
5. Should the Company (Bidder) be operating from the Same Address as the Director, An affidavit confirming such should be submitted.
6. Valid Certificate in line with Compensation for Occupational Injuries and Diseases Act (**COIDA**) as amended.
7. CIDB grading - **7ME or Higher**
8. Three (03) Years recent Audited Annual Financial Statements

- 9.** The tenderer must submit a detailed Safety Plan outlining the procedures as defined by Occupational Health and Safety Act No 85 of 1993 with its regulations. Should the bidder fail to present such documentation this will result in immediate disqualification. (*upon the appointment, the successful bidder must to sign of an compliance agreement in terms of Section 37.2 of Occupational Health and Safety Act and its regulations*)
- 10.** Soft Copy of the entire tender document including returnable saved in a USB is optional.

BID REQUIREMENTS

- 1.** Late bids will not be considered. Please note that bids are late if they are received after the closing date and time.
- 2.** Bids will be valid for 90 days.
- 3.** All MBDs must be fully completed and signed.
- 4.** All prices must be quoted in South African currency and must be VAT Inclusive.
- 5.** All the deliverables in the Pricing Schedule table must be priced, failure to price all deliverables will render your bid non-responsive.
- 6.** All relevant forms attached to this bid document must be completed and signed in black ink where applicable by a duly authorised official. Use of tippex and pencil will not be acceptable.
- 7.** Certified copies must have a date of certification and should be not older than 3 months as at the close of the tender. (Should the copy not have the date of certification the tender will be regarded as non-responsive)
- 8.** Only original stamp and signature will be accepted.
- 9.** Copy of a certified copy will be considered non-responsive.
- 10.** For procurement expected to be less than 10 million, awards will not be made to bidders owing municipal rates and taxes for over 90 days at the time of tender closure
- 11.** For procurement expected to be more than 10 million, awards will not be made to bidders owing municipal rates and taxes for over 30 days at the time of tender closure
- 12.** Proof of residence from ward councillors will not be accepted

NGAKA MODIRI MOLEMA DISTRICT MUNICIPALITY

SIGNATORY AUTHORISATION

(To be completed by the Bidder)

SIGNATORY AUTHORISATION

I/We the undersigned, am/are authorized to enter into this contract on behalf of

(Name of Firm)

By virtue of resolution dated -----day of -----20-----
(Month)

The certified copy of resolution that is herewith attached to this Bid.

(Initials and Surname in full)

Signature

WITNESS

Signature

NGAKA MODIRI MOLEMA DISTRICT MUNICIPALITY

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state*.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Full Name:

3.2 Identity Number:

3.3 Position occupied in the Company (director, trustee, shareholder).....

3.3 Company Registration Number:.....

3.5 Tax Reference Number:

3.6 VAT Registration Number:

3.7 The names of all directors / trustees / shareholder members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the service of the state* **YES/NO**

3.8.1 If so, furnish particulars:

3.9 Have you been in the service of the state for the past twelve months? **YES/NO**

* MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of 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);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

3.9.1 If so, furnish particulars:

3.10 Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES/NO**

3.10.1 If so, furnish particulars:

.....
.....

3.11 Are you, aware of any relationship (family, friend, other) between any bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES/NO**

3.11.1 If so, furnish particulars:

.....
.....

3.12 Are any of the company's directors, managers, principle shareholders or stakeholders in service of the state? **YES/NO**

3.12.1 If so, furnish particulars:

.....

3.13 Are any spouse, child or parent of the company's directors Managers, principle shareholders or stakeholders in service of the state? **YES/NO**

3.13.1 If so, furnish particulars:

.....

3.14 Do you or any other of the directors, Managers, principle shareholders or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES/NO**

3.14.1 If so, furnish particulars:

.....

**DECLARATION FOR PROCUREMENT ABOVE R10 MILLION
(ALL APPLICABLE TAXES INCLUDED)**

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

b. Are you by law required to prepare annual financial statements for auditing?

***YES / NO**

b.1 If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.

.....
.....

2 Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?

***YES / NO**

2.1 If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.

2.2 If yes, provide particulars.

.....
.....

* Delete if not applicable

3. Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?

***YES / NO**

b.1 If yes, furnish particulars

.....
.....

4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?

***YES / NO**

4.1 If yes, furnish particulars

.....
.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)

.....
.....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

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

Signature

Date

Position

Name of Bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 90/10 system for requirements with a Rand value of above R50 000 000 (all applicable taxes included)

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a. The applicable preference point system for this tender is the 90/10 preference point system.
- b. 90/10 preference point system will be applicable in this tender. The lowest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- a. Price; and
- b. Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Companies based within NMMDM	
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

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

2. DEFINITIONS

- a. “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- b. “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- c. “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- d. “**tender for income-generating contracts**” means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- e. “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1 POINTS AWARDED FOR PRICE

3.1.1 THE 90/10 PREFERENCE POINT SYSTEMS

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

90/10

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

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{min} = Price of lowest acceptable tender

3.2 FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1 POINTS AWARDED FOR PRICE

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

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

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{max} = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2 In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

- a. an invitation for tender for income-generating contracts, that the 80/20 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
- b. any other invitation for tender, that the 80/20 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)
Companies based within NMMDM	10	

DECLARATION WITH REGARD TO COMPANY/FIRM

5.1. Name of company/firm.....

5.2. Company registration number:

5.3. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

5.4. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I 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 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering 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 tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and forward the matter for criminal prosecution, if deemed necessary.

..... SIGNATURE(S) OF TENDERER(S)	
SURNAME AND NAME:
DATE:
ADDRESS:

CONTRACT FORM - RENDERING OF SERVICES

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SERVICE PROVIDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SERVICE PROVIDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)..... in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.

2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Proof of tax compliance status;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Preference claim form for Preferential Procurement in terms of the Preferential Procurement Regulations;
 - Declaration of interest;
 - Declaration of Bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT).....

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES	
1
2
DATE:.....	

CONTRACT FORM - RENDERING OF SERVICES

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I..... in my capacity as..... accept your bid under reference numberdated.....for the rendering of services indicated hereunder and/or further specified in the annexure(s).

2. An official order indicating service delivery instructions is forthcoming.

3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

<u>DESCRIPTION OF SERVICE</u>	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	TOTAL PREFERENCE POINTS CLAIMES	POINTS CLAIMED FOR EACH SPECIFIC GOAL

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT ON(date)

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:.....

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Municipal Bidding Documents must form part of all bids invited.
2. It serves as a declaration to be used by municipalities and municipal entities 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 rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector during the past five years;
 - d. been listed in the Register for Tender defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act(no 12 of 2004).
4. **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 as a company or person 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 National Treasury after the <i>audi alteram partem</i> rule was applied)	<input type="checkbox"/>	<input type="checkbox"/>
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)? (To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 326 5445).	<input type="checkbox"/>	<input type="checkbox"/>
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 of law outside the Republic of South Africa) for fraud or corruption during the past five years?	<input type="checkbox"/>	<input type="checkbox"/>
4.3.1	If so, furnish particulars		

4.4.	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	<input type="checkbox"/>	<input type="checkbox"/>
4.4.1	If so, furnish particulars		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	<input type="checkbox"/>	<input type="checkbox"/>
4.5.1	If so, furnish particulars		

CERTIFICATION

I, THE UNDERSIGNED (NAME)

.....
.....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

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

Signature

Date

Position

Name of Bidder

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 2 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).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD 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 bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

I, the undersigned, in submitting the accompanying bid:

_____ (Bid Number and Description)

in response to the invitation for the bid made by:

_____ (Name of Municipality / Municipal Entity)

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

I certify, on behalf of: _____ that:
(Name of Bidder)

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

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

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² 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.

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

SCOPE OF WORK OR TERMS OF REFERENCE

- 1.** Mechanical repairs and maintenance of water engines as per manufacture's guidelines/manual within a specified warrantee.
- 2.** Conduct assessment to establish maintenance plan for the entire infrastructure of the NMMDM.
- 3.** Develop the Reactive and Preventative Maintenance Plan and Borehole Management Plan
- 4.** Emergency supply and installation of water engines as and when there is non-availability of stork from our stores.
- 5.** Construction of borehole pump houses.
- 6.** Refurbish and maintain dilapidated or aging pump houses
- 7.** Supply and installation of precast/concrete and steel fencing of pump houses
- 8.** Repair and maintenance of concrete and steel palisade fencing
- 9.** Supply and installation of water engine stands
- 10.** Repairs and modification of engine stands to fit different water engines.
- 11.** Supply and installation of steel/galvanised storage tank stands
- 12.** Repairs and modification of steel/galvanised storage tank stands
- 13.** Maintenance of leaking steel storage tanks by rubberizing or seal and contain any leakages
- 14.** Repairs and sealing concrete storage tanks
- 15.** Supply and install of electric or barbed wire
- 16.** Repair and maintenance of electric and barbed wire
- 17.** Return and hand-in the damaged components or parts to same NMMDM official for disposal purpose

SPECIAL CONDITIONS

1. Unless under emergencies circumstances no work will be done or performed without a written and approved Site instruction or official purchase order by NMMDM official.
2. NMMDM will request a quote related to the tender for any additional work or service not included on the tender document from the appointed service provider.
3. The tenderer must have a Workshop within NMMDM jurisdiction where the equipment will be attended, and that will be from where transport tariffs shall be calculated for every item.
4. Transport tariffs must be given as a rate per kilometre as per updated **Department of Transport – Tariff for the use of motor transport**
5. The Tenderer must at all times after completing the assigned work as per issued site instruction, attach a completion certificate on the claims and due to the nature of this contract.
6. All claims will be verified before approval of payment.
7. Warrantee on replaced items should be at least 12 Months after replacement.
8. In addition, the appointed contractor(s) should adhere to **Occupational Health and Safety (OHS) Act** and its Regulations Requirements
9. The appointed contractor(s) should always keep the sites in good conditions after attending to all queries

FUNCTIONALITY

Evaluation Criteria

Criteria	Guideline Weighting Points	
<p>Company experience on similar projects done at the government, corporate and any public sector organisations.</p> <p>Four (04) Appointment Letters with corresponding reference letters = 20 Three (03) Appointment Letters with corresponding reference letters = 15 Two (02) Appointment Letters with corresponding reference letters = 10 Zero to One (01) Appointment Letters with corresponding reference letters = 00</p> <p><i>(Attach Signed and Stamped Appointment Letter or Purchase Order and Recommendation/Reference Letters on a Company Letter Head)</i></p> <p>Failure to submit the appointment letter or purchase order with corresponding reference letters will lead to forfeit of points.</p>	20	
<p>Key Personnel</p> <p>01 x Diesel Mechanic 01 x Occupational Health and Safety Personnel</p> <p><i>Relevant Experience minimum of two (2) years' experience and more (Attach Original Certified copy of Qualifications & CV:</i></p> <ul style="list-style-type: none"> • Diesel Mechanic - Artisans with Trade Test Certificate – NQF Level 6 • Occupational Health and Safety Specialist – National Diploma in OHS or Environmental Health (Registered professional body: South African Institute of Occupational Safety and Health SAIOSH/IOSH) 	20	
<p>Plant</p> <p>01 x 4 Ton Truck 01 x Tractor Loading Backhoe (TLB) 01 x Light Delivery Vehicle (LDV)</p> <p><i>(Attach Proof of ownership or JV agreement letter or Lease Agreement) Proof of ownership and Valid registration Licencing) for the above plant.</i></p>	20	
Total	60	

NB: REQUIRED MINIMUM SCORE ON FUNCTIONALITY IS 50 OF THE TOTAL POINTS ALLOCATED FOR FUNCTIONALITY.

ALL THE CRITERION MUST BE MET TO MEET THE MINIMUM THRESHOLD OF 50 POINTS

PRICING SCHEDULE

NB: THE SPECIFICATION AND FORM OF OFFER MUST BE COMPLETED IN FULL, ALL ITEMS MUST BE PRICED FAILURE TO DO SO WILL RENDER THE BID DOCUMENT NON-RESPONSIVE.

1. STRIPPING, SUPPLY AND REPAIR AND REPLACEMENT OF TR1 ENGINES.

No	Description	Strip, Supply & Installation of New Component (Per Hour)	Strip, Repair & Installation of Old Component (Per Hour)
01	Crankshaft		
02	Connecting rod		
03	Piston		
04	Cylinder barrel		
05	Main bearing housing		
06	Centre bearing housing		
07	Camshaft and governor – early engines		
08	Camshaft and governor – later engines		
09	Fuel pump linkage		
10	Engine controls		
11	Gear end cover		
12	Flywheel		
13	Fanshroud		
14	Flywheel charge windings - synchro		
15	Flywheel charge windings - nicsa		
16	Cylinder head		
17	Cylinder head cover		
18	Air duct, cowling, shields		
19	Fuel filter		
20	Fuel lift pump		
21	Fuel filter and pump		
22	Fuel injector		
23	Steel fuel pipes		

24	50 Litre fuel tank – early engines		
25	100 Litre fuel tank – later engines		
26	Inlet and exhaust manifold		
27	Heavy duty silencer		
28	Flexible exhaust pipe – 1metre		
29	Starter motor		
30	24V Co-axial starter		
31	Starting handle		
32	Alternator		
33	Variable speed control – lever operated engine mounted		
34	Electronic governor adaptor		
35	Shaft extension – flywheel end		
36	Shaft extension – gear end		
37	Oil distribution block		
38	Temperature switch		
39	Oil pressure switch		
40	Fuel control solenoid		
41	Gauge panel		
42	Oil pressure gauge		
43	Temperature gauge		
44	Vibration running hour recorder		
45	Heavy duty air cleaner		
46	Medium duty dry type air cleaner		
47	Clutch pulley		
48	Sae adaptor and guard		
49	Oil filter		
50	Hydraulic pump adaptor – gear end		
51	Hydraulic pump adaptor – flywheel end		
SUB-TOTAL			
15% VAT			
GRAND TOTAL			

2. STRIPPING, SUPPLY AND REPAIR AND REPLACEMENT OF TR2 ENGINES.

No	Description	Strip, Supply & Installation of New Component (Per Hour)	Strip, Repair & Installation of Old Component (Per Hour)
01	Crankshaft		
02	Connecting rod		
03	Piston		
04	Cylinder barrel		
05	Main bearing housing		
06	Centre bearing housing		
07	Camshaft and governor – early engines		
08	Camshaft and governor – later engines		
09	Fuel pump linkage		
10	Engine controls		
11	Gear end cover		
12	Flywheel		
13	Fanshroud		
14	Flywheel charge windings - synchro		
15	Flywheel charge windings - nicsa		
16	Cylinder head		
17	Cylinder head cover		
18	Air duct, cowling, shields		
19	Fuel filter		
20	Fuel lift pump		
21	Fuel filter and pump		
22	Fuel injector		
23	Steel fuel pipes		
24	50 Litre fuel tank – early engines		
25	100 Litre fuel tank – later engines		
26	Inlet and exhaust manifold		

27	Heavy duty silencer		
28	Flexible exhaust pipe – 1metre		
29	Starter motor		
30	24V Co-axial starter		
31	Starting handle		
32	Alternator		
33	Variable speed control – lever operated engine mounted		
34	Electronic governor adaptor		
35	Shaft extension – flywheel end		
36	Shaft extension – gear end		
37	Oil distribution block		
38	Temperature switch		
39	Oil pressure switch		
40	Fuel control solenoid		
41	Gauge panel		
42	Oil pressure gauge		
43	Temperature gauge		
44	Vibration running hour recorder		
45	Heavy duty air cleaner		
46	Medium duty dry type air cleaner		
47	Clutch pulley		
48	Sae adaptor and guard		
49	Oil filter		
50	Hydraulic pump adaptor – gear end		
51	Hydraulic pump adaptor – flywheel end		
SUB-TOTAL			
15% VAT			
GRAND TOTAL			

3. STRIPPING, SUPPLY AND REPAIR AND REPLACEMENT OF TR3 ENGINES.

No	Description	Strip, Supply & Installation of New Component (Per Hour)	Strip, Repair & Installation of Old Component (Per Hour)
01	Crankshaft		
02	Connecting rod		
03	Piston		
04	Cylinder barrel		
05	Main bearing housing		
06	Centre bearing housing		
07	Camshaft and governor – early engines		
08	Camshaft and governor – later engines		
09	Fuel pump linkage		
10	Engine controls		
11	Gear end cover		
12	Flywheel		
13	Fanshroud		
14	Flywheel charge windings - synchro		
15	Flywheel charge windings - nicsa		
16	Cylinder head		
17	Cylinder head cover		
18	Air duct, cowling, shields		
19	Fuel filter		
20	Fuel lift pump		
21	Fuel filter and pump		
22	Fuel injector		
23	Steel fuel pipes		
24	50 Litre fuel tank – early engines		
25	100 Litre fuel tank – later engines		
26	Inlet and exhaust manifold		

27	Heavy duty silencer		
28	Flexible exhaust pipe – 1metre		
29	Starter motor		
30	24V Co-axial starter		
31	Starting handle		
32	Alternator		
33	Variable speed control – lever operated engine mounted		
34	Electronic governor adaptor		
35	Shaft extension – flywheel end		
36	Shaft extension – gear end		
37	Oil distribution block		
38	Temperature switch		
39	Oil pressure switch		
40	Fuel control solenoid		
41	Gauge panel		
42	Oil pressure gauge		
43	Temperature gauge		
44	Vibration running hour recorder		
45	Heavy duty air cleaner		
46	Medium duty dry type air cleaner		
47	Clutch pulley		
48	Sae adaptor and guard		
49	Oil filter		
50	Hydraulic pump adaptor – gear end		
51	Hydraulic pump adaptor – flywheel end		
SUB-TOTAL			
15% VAT			
GRAND TOTAL			

4. STRIPPING, SUPPLY AND REPAIR AND REPLACEMENT OF TAF1 ENGINES.

No	Description	Strip, Supply & Installation of New Component (Per Hour)	Strip, Repair & Installation of Old Component (Per Hour)
01	Crankshaft		
02	Connecting rod		
03	Piston		
04	Cylinder barrel		
05	Main bearing housing		
06	Centre bearing housing		
07	Camshaft and governor – early engines		
08	Camshaft and governor – later engines		
09	Fuel pump linkage		
10	Engine controls		
11	Gear end cover		
12	Flywheel		
13	Fanshroud		
14	Flywheel charge windings - synchro		
15	Flywheel charge windings - nicsa		
16	Cylinder head		
17	Cylinder head cover		
18	Air duct, cowling, shields		
19	Fuel filter		
20	Fuel lift pump		
21	Fuel filter and pump		
22	Fuel injector		
23	Steel fuel pipes		
24	50 Litre fuel tank – early engines		
25	100 Litre fuel tank – later engines		
26	Inlet and exhaust manifold		

27	Heavy duty silencer		
28	Flexible exhaust pipe – 1metre		
29	Starter motor		
30	24V Co-axial starter		
31	Starting handle		
32	Alternator		
33	Variable speed control – lever operated engine mounted		
34	Electronic governor adaptor		
35	Shaft extension – flywheel end		
36	Shaft extension – gear end		
37	Oil distribution block		
38	Temperature switch		
39	Oil pressure switch		
40	Fuel control solenoid		
41	Gauge panel		
42	Oil pressure gauge		
43	Temperature gauge		
44	Vibration running hour recorder		
45	Heavy duty air cleaner		
46	Medium duty dry type air cleaner		
47	Clutch pulley		
48	Sae adaptor and guard		
49	Oil filter		
50	Hydraulic pump adaptor – gear end		
51	Hydraulic pump adaptor – flywheel end		
SUB-TOTAL			
15% VAT			
GRAND TOTAL			

5. STRIPPING, SUPPLY AND REPAIR AND REPLACEMENT OF TAF2 ENGINES.

No	Description	Strip, Supply & Installation of New Component (Per Hour)	Strip, Repair & Installation of Old Component (Per Hour)
01	Crankshaft		
02	Connecting rod		
03	Piston		
04	Cylinder barrel		
05	Main bearing housing		
06	Centre bearing housing		
07	Camshaft and governor – early engines		
08	Camshaft and governor – later engines		
09	Fuel pump linkage		
10	Engine controls		
11	Gear end cover		
12	Flywheel		
13	Fanshroud		
14	Flywheel charge windings - synchro		
15	Flywheel charge windings - nicsa		
16	Cylinder head		
17	Cylinder head cover		
18	Air duct, cowling, shields		
19	Fuel filter		
20	Fuel lift pump		
21	Fuel filter and pump		
22	Fuel injector		
23	Steel fuel pipes		
24	50 Litre fuel tank – early engines		
25	100 Litre fuel tank – later engines		
26	Inlet and exhaust manifold		

27	Heavy duty silencer		
28	Flexible exhaust pipe – 1metre		
29	Starter motor		
30	24V Co-axial starter		
31	Starting handle		
32	Alternator		
33	Variable speed control – lever operated engine mounted		
34	Electronic governor adaptor		
35	Shaft extension – flywheel end		
36	Shaft extension – gear end		
37	Oil distribution block		
38	Temperature switch		
39	Oil pressure switch		
40	Fuel control solenoid		
41	Gauge panel		
42	Oil pressure gauge		
43	Temperature gauge		
44	Vibration running hour recorder		
45	Heavy duty air cleaner		
46	Medium duty dry type air cleaner		
47	Clutch pulley		
48	Sae adaptor and guard		
49	Oil filter		
50	Hydraulic pump adaptor – gear end		
51	Hydraulic pump adaptor – flywheel end		
SUB-TOTAL			
15% VAT			
GRAND TOTAL			

6. STRIPPING, SUPPLY AND REPAIR AND REPLACEMENT OF TAF3 ENGINES.

No	Description	Strip, Supply & Installation of New Component (Per Hour)	Strip, Repair & Installation of Old Component (Per Hour)
01	Crankshaft		
02	Connecting rod		
03	Piston		
04	Cylinder barrel		
05	Main bearing housing		
06	Centre bearing housing		
07	Camshaft and governor – early engines		
08	Camshaft and governor – later engines		
09	Fuel pump linkage		
10	Engine controls		
11	Gear end cover		
12	Flywheel		
13	Fanshroud		
14	Flywheel charge windings - synchro		
15	Flywheel charge windings - nicsa		
16	Cylinder head		
17	Cylinder head cover		
18	Air duct, cowling, shields		
19	Fuel filter		
20	Fuel lift pump		
21	Fuel filter and pump		
22	Fuel injector		
23	Steel fuel pipes		
24	50 Litre fuel tank – early engines		
25	100 Litre fuel tank – later engines		
26	Inlet and exhaust manifold		

27	Heavy duty silencer		
28	Flexible exhaust pipe – 1metre		
29	Starter motor		
30	24V Co-axial starter		
31	Starting handle		
32	Alternator		
33	Variable speed control – lever operated engine mounted		
34	Electronic governor adaptor		
35	Shaft extension – flywheel end		
36	Shaft extension – gear end		
37	Oil distribution block		
38	Temperature switch		
39	Oil pressure switch		
40	Fuel control solenoid		
41	Gauge panel		
42	Oil pressure gauge		
43	Temperature gauge		
44	Vibration running hour recorder		
45	Heavy duty air cleaner		
46	Medium duty dry type air cleaner		
47	Clutch pulley		
48	Sae adaptor and guard		
49	Oil filter		
50	Hydraulic pump adaptor – gear end		
51	Hydraulic pump adaptor – flywheel end		
SUB-TOTAL			
15% VAT			
GRAND TOTAL			

7. EMERGENCY SUPPLY, DELIVERY AND INSTALL OF NEW WATER SUPPLY ENGINES

All engines must be completely fitted with a separate 50-100 litre diesel tank, tank stand, Exhaust with 1.2m extension, all filters, a Clutch Pulley and starting Handle.

No	Description	Required minimum Specifications	Unit Price (vat exclusive)	15% VAT	Total Including VAT
01	LT1/LV1 Water Engine	05kw, 1 200 revs/min			
02	TR1/TS1 Water Engine	07kw, 1 500 revs/min			
03	TR2/TS2 Water Engine	14kw, 2 000 revs/min			
04	TR3/TS3 Water Engine	25kw, 2 500 revs/min			
05	TAF1 Water Engine	4.4kw, 1 000 revs/min			
06	TAF2 Water Engine	8.8kw, 1 700 revs/min			
07	TAF3 Water Engine	8.8kw, 1 700 revs/min			
SUB TOTAL					
Rate for installation (Per Hour)					
Travelling Cost per kilo (Department of Transport - Tariff for the use of motor transport) as and when.					
GRAND-TOTAL					

8. STRIPPING, SUPPLY AND REPAIR AND REPLACEMENT OF DIESEL/PETROL GENERATORS

No	Description	Required Specifications	Strip, Supply & Installation of New Component (Per Hour)	Strip, Repair & Installation of Old Component (Per Hour)
1	Starter 10kva	As per Manufacturer		
2	Starter 15kva	As per Manufacturer		
3	Starter 25kva	As per Manufacturer		
4	Starter 30kva	As per Manufacturer		
5	Starter 40kva	As per Manufacturer		
6	Starter 50kva	As per Manufacturer		
	Starter 70kva	As per Manufacturer		
	Starter 100kva	As per Manufacturer		
7	Fuel filter 10kva	As per Manufacturer		
8	Fuel filter 15kva	As per Manufacturer		
9	Fuel filter 25kva	As per Manufacturer		

10	Fuel filter 30kva	As per Manufacturer		
11	Fuel filter 40kva	As per Manufacturer		
12	Fuel filter 50kva	As per Manufacturer		
13	Air filter 10kva	As per Manufacturer		
14	Air filter 15kva	As per Manufacturer		
15	Air filter 25kva	As per Manufacturer		
16	Air filter 30kva	As per Manufacturer		
17	Air filter 40kva	As per Manufacturer		
18	Air filter 50kva	As per Manufacturer		
19	Oil filter 10kva	As per Manufacturer		
20	Oil filter 15kva	As per Manufacturer		
21	Oil filter 25kva	As per Manufacturer		
22	Oil filter 30kva	As per Manufacturer		
23	Oil filter 40kva	As per Manufacturer		
24	Oil filter 50kva	As per Manufacturer		
25	Choke 10kva	As per Manufacturer		
26	Choke 15kva	As per Manufacturer		
27	Choke 25kva	As per Manufacturer		
28	Choke 30kva	As per Manufacturer		
29	Choke 40kva	As per Manufacturer		
30	Choke 50kva	As per Manufacturer		
31	Plug 10kva	As per Manufacturer		
32	Plug 15kva	As per Manufacturer		
33	Plug 25kva	As per Manufacturer		
34	Plug 30kva	As per Manufacturer		
35	Plug 40kva	As per Manufacturer		
36	Plug 50kva	As per Manufacturer		
37	Starting oil 10kva	As per Manufacturer		
38	Starting oil 15kva	As per Manufacturer		
39	Starting oil 25kva	As per Manufacturer		

40	Starting oil 30kva	As per Manufacturer		
41	Starting oil 40kva	As per Manufacturer		
42	Starting oil 50kva	As per Manufacturer		
43	Alternator 10kva	As per Manufacturer		
44	Alternator 15kva	As per Manufacturer		
45	Alternator 25kva	As per Manufacturer		
46	Alternator 30kva	As per Manufacturer		
47	Alternator 40kva	As per Manufacturer		
48	Alternator 50kva	As per Manufacturer		
49	Carburettor 10kva	As per Manufacturer		
50	Carburettor 15kva	As per Manufacturer		
51	Carburettor 25kva	As per Manufacturer		
52	Carburettor 30kva	As per Manufacturer		
53	Carburettor 40kva	As per Manufacturer		
54	Carburettor 50kva	As per Manufacturer		
55	Rings 10kva	As per Manufacturer		
56	Rings 15kva	As per Manufacturer		
57	Rings 25kva	As per Manufacturer		
58	Rings 30kva	As per Manufacturer		
59	Rings 40kva	As per Manufacturer		
60	Rings 50kva	As per Manufacturer		
61	Vee belt 10kva	As per Manufacturer		
62	Vee belt 15kva	As per Manufacturer		
63	Vee belt 25kva	As per Manufacturer		
64	Vee belt 30kva	As per Manufacturer		
65	Vee belt 40kva	As per Manufacturer		
66	Vee belt 50kva	As per Manufacturer		
67	Tappets 10kva	As per Manufacturer		
68	Tappets 15kva	As per Manufacturer		
69	Tappets 25kva	As per Manufacturer		

70	Tappets 30kva	As per Manufacturer		
71	Tappets 40kva	As per Manufacturer		
72	Tappets 50kva	As per Manufacturer		
73	Minor service 10kva	As per Manufacturer		
74	Minor service 15kva	As per Manufacturer		
75	Minor service 25kva	As per Manufacturer		
76	Minor service 30kva	As per Manufacturer		
77	Minor service 40kva	As per Manufacturer		
78	Minor service 50kva	As per Manufacturer		
79	Radiator 10kva	As per Manufacturer		
80	Radiator 15kva	As per Manufacturer		
81	Radiator 25kva	As per Manufacturer		
82	Radiator 30kva	As per Manufacturer		
83	Radiator 40kva	As per Manufacturer		
84	Radiator 50kva	As per Manufacturer		
85	Engine Overhaul 10kva	As per Manufacturer		
86	Engine Overhaul 15kva	As per Manufacturer		
87	Engine Overhaul 25kva	As per Manufacturer		
88	Engine Overhaul 30kva	As per Manufacturer		
89	Engine Overhaul 40kva	As per Manufacturer		
90	Engine Overhaul 50kva	As per Manufacturer		
91	Major service 10kva	As per Manufacturer		
92	Major service 15kva	As per Manufacturer		
93	Major service 25kva	As per Manufacturer		
94	Major service 30kva	As per Manufacturer		
95	Major service 40kva	As per Manufacturer		
96	Major service 50kva	As per Manufacturer		
97	Fuel pump 10kva	As per Manufacturer		
98	Fuel pump 15kva	As per Manufacturer		

99	Fuel pump 25kva	As per Manufacturer		
100	Fuel pump 30kva	As per Manufacturer		
101	Fuel pump 40kva	As per Manufacturer		
102	Fuel pump 50kva	As per Manufacturer		
103	Oil pump 10kva	As per Manufacturer		
104	Oil pump 15kva	As per Manufacturer		
105	Oil pump 25kva	As per Manufacturer		
106	Oil pump 30kva	As per Manufacturer		
107	Oil pump 40kva	As per Manufacturer		
108	Oil pump 50kva	As per Manufacturer		
SUB-TOTAL				
15% VAT				
GRAND TOTAL				

9. SUPPLY, DELIVERY AND MODIFICATION (WELDING) OF WATER ENGINE STANDS

No	Description	Required minimum Specifications	Unit Price (vat exclusive)	15% VAT	Total Including VAT
01	LT1/LV1 Engine Stand	The Stand must have a 160mm borehole frame, completely made of 5mm thick steel iron with three 16mm holes each side with a length which will fit to a 17 x 3700mm V-Belt.			
02	TR1/TS1 Engine Stand	The Stand must have a 160mm borehole frame, completely made of 5mm thick steel iron with three 16mm holes each side with a length which will fit to a 17 x 4060mm V-Belt.			
03	TR2/TS2 Engine Stand	The Stand must have a 160mm borehole frame, completely made of 5mm thick steel iron with three 16mm holes each side with a length which will fit to a 17 x 4060mm V-Belt.			
04	TR3/TS3 Engine Stand	The Stand must have a 160mm borehole frame, completely made of 5mm thick steel iron with three 16mm holes each side with a length which will fit to a 17 x 4060mm V-Belt.			

05	TAF1 Engine Stand	The Stand must have a 160mm borehole frame, completely made of 5mm thick steel iron with three 16mm holes each side with a length which will fit to a 17 x 3700mm V-Belt.			
06	TAF2 Engine Stand	The Stand must have a 160mm borehole frame, completely made of 5mm thick steel iron with three 16mm holes each side with a length which will fit to a 17 x 4060mm V-Belt.			
07	TAF3 Engine Stand	The Stand must have a 160mm borehole frame, completely made of 5mm thick steel iron with three 16mm holes each side with a length which will fit to a 17 x 4060mm V-Belt.			
Rate for installation, repairs and maintenance (Per Hour)					
Travelling Cost per kilo (Department of Transport - Tariff for the use of motor transport) as and when.					
GRAND-TOTAL					

10. SUPPLY, INSTALLATION AND MODIFICATION OF STORAGE TANK STANDS (PRIMED & PAINTED)

No	Description	Required minimum Specifications	Unit Price (vat exclusive)	15% VAT	Total Including VAT
01	1m High Stand for 5kl Storage Tank	Steel			
02	1m High Stand for 10kl Storage tank	Steel			
03	6m High stand for 5kl Storage tank	Steel			
04	6m High stand for 10kl Storage tank	Steel			
05	6m High stand for 10kl Storage tank	Steel			
06	6m High stand for 10kl Storage tank	Steel			
Rate for installation, repairs and maintenance (Per Hour)					
Travelling Cost per kilo (Department of Transport - Tariff for the use of motor transport) as and when.					
GRAND-TOTAL					

11. SUPPLY, INSTALLATION AND MODIFICATION OF ENGINE STANDS (PRIMED & PAINTED)

No	Description	Required minimum Specifications	Unit Price (vat exclusive)	15% VAT	Total Including VAT
01	LT1/LV1 Engine	Steel			
02	TR1 Engine	Steel			
03	TR2 Engine	Steel			
04	TR3 Engine	Steel			
05	TAF1 Engine	Steel			
06	TAF2 Engine	Steel			
07	TAF3 Engine	Steel			
Rate for installation, repairs and modification (Per Hour)					
Travelling Cost per kilo (Department of Transport - Tariff for the use of motor transport) as and when.					
GRAND-TOTAL					

12. REPAIRS OF LEAKING AND DAMAGED STORAGE (STEEL & CONCRETE) TANKS USING OWN MATERIAL

No	Description	Required minimum Specifications	Unit Price (vat exclusive)	15% VAT	Total Including VAT
01	Repairs of a leaking steel tank	By using a rubber gasket per compartment or as recommended.			
02	Repairs of a leaking steel tank corroded or rusted.	By replacing the steel compartment.			
03	Repairs of a leaking Concrete Reservoir per sqm.	By installing a plastic lining and 30mm plastering per sqm			
04	Repairs of damaged reservoir/manhole lockable steel lids	By welding or replacing the lid			
05	Repairs of leaking/damaged plastic storage Tank	By bud welding the affected portion			
06	Rubberising inside steel tank (30mm plastic lining)	Per square meter			
Rate for installation, repairs and maintenance (Per Hour)					
Travelling Cost per kilo (Department of Transport - Tariff for the use of motor transport) as and when.					
GRAND-TOTAL					

13. SUPPLY, DELIVERY AND INSTALLATION OF STEEL STORAGE TANKS

No	Description	Minimum Required capacity	Unit Price (vat exclusive)	15% VAT	Total Including VAT
1.	Complete Storage Steel Tank with a lockable steel lid and a complete 6m high steel Stand strong enough to carry the load.	50kl steel			
2.	Complete Storage Steel Tank with a lockable steel lid and a complete 9m high steel Stand strong enough to carry the load.	50kl steel			
3.	Complete Storage Steel Tank with a lockable steel lid and a complete 6m high steel Stand strong enough to carry the load.	100kl Steel			
4.	Complete Storage Steel Tank with a lockable steel lid and a complete 9m high steel Stand strong enough to carry the load.	100kl Steel			
5.	Complete Storage Steel Tank with a lockable steel lid and a complete 6m high steel Stand strong enough to carry the load	150kl Steel			
6.	Complete Storage Steel Tank with a lockable steel lid and a complete 9m high steel Stand strong enough to carry the load	150kl Steel			
7.	Complete Storage Steel Tank with a lockable steel lid and a complete 6m high steel Stand strong enough to carry the load	200kl Steel			
8.	Complete Storage Steel Tank with a lockable steel lid and a complete 9m high steel Stand strong enough to carry the load	200kl Steel			
9.	Complete Storage Steel Tank with a lockable steel lid and a complete 6m high steel Stand strong enough to carry the load	300kl Steel			
10.	Complete Storage Steel Tank with a lockable steel lid and a complete 9m high steel Stand strong enough to carry the load	300kl Steel			
11.	Complete Storage Steel Tank with a lockable steel lid and a complete 6m high steel Stand strong enough to carry the load	450kl Steel			
12.	Complete Storage Steel Tank with a lockable steel lid and a complete 9m high steel Stand strong enough to carry the load	450kl Steel			
13.	Telemetry System – Electronic Instrumentation and measurement	N/A			
	GRAND-TOTAL				

14. BUILDING OF CONCRETE PUMP-HOUSES AND FENCING WITH CONCRETE PALISADE AND ELECTRIC WIRE OR GALVANISED BARBED/RAZOR WIRE.

No	Description	Required minimum Specifications	Unit Price (vat exclusive)	15% VAT	Total Including VAT
1.	Complete concrete pump house roofed with 50mm concrete slab with a lockable (trap door) steel manhole opening at the top for maintenance purposes.	3m x 3m x 2m (L x B x H)			
2.	Lockable Steel Plate Door and Frame with a lockable steel bugler door inside and outside with the epoxy coating with the dark blue colour coding of all steel frameworks.	Steel			
3.	Palisade fence made of 1.8m(H) x 3m (L) using 75mm square tube and 5mm angle iron with the epoxy coating with the dark blue colour coding of all steel frameworks	Per 3m			
4.	Palisade fence made of 2.4m(H) x 3m (L) using 75mm square tube and 5mm angle iron with the epoxy coating with the dark blue colour coding of all steel frameworks	Per 3m			
5.	1.8m (H) x 1m (L) Concrete/Precast Palisade fence	Per meter			
6.	2.4m (H) x 1m (L) Concrete/Precast Palisade fence	Per meter			
7.	450mm Coil dimension Galvanised barbed/razor wire Super Blade	Per meter			
8.	730mm Coil dimension Galvanised barbed/razor wire Super Blade	Per meter			
9.	980mm Coil dimension Galvanised barbed/razor wire Super Blade	Per meter			
10.	Lockable Sliding Gate (Palisade) with the epoxy coating with the dark blue colour coding of all steel frameworks	1.8m(H) x 4m(L)			
11.	6-Wire Electric Fence	Per meter			
12.	8-Wire Electric Fence	Per meter			
13.	Electric Fencing starter Kit	Kit			
Rate (Per hour)					
Travelling Cost per kilo (Department of Transport - Tariff for the use of motor transport) as and when.					
GRAND-TOTAL					

15. ASSESSMENT OF INFRASTRUCTURE.

No	Description	Unit Price (vat exclusive)	15% VAT	Total Including VAT
1.	General assessment of infrastructure to acquire the current status quo			
Rate (Per hour)				
GRAND-TOTAL				

ADDITIONAL SPECIFICATIONS

SPECIFICATION for ready made steel stand for 10kl storage tank

Ready-made steel stands that will fit the base of a 10kl storage Tank as per under mentioned specifications are needed:-

1. Square of 2.6m x 100mm x 6mm angle iron;
2. 2.6m x 100mm x 6mm lip channels (carrier beams) be welded closely next to each other on the square;
3. 80mm x 6mm angle iron be welded across the lip channels underneath the carrier beams;
4. 80mm x 6mm angle iron be welded at four corners of the square as stays which will carry the load; and
5. 75mm x 6mm square tubes be welded 45 degrees opposite all four corners with a 500mm length as anchors to support the stays (in case of 1m high stands).
6. 80mm x 6mm angle iron be welded against all four stays supporting the stand with three compartments from the carrier beams to make the stand well balanced (in case of a 6m high stand)
7. 20mm round bars be welded across each other on all four sides from top to bottom.
8. 500mm (w) x 5m (L) steel steps mounted on the stand
9. All the stands be primed and painted with maroon coloured oil paint.

SPECIFICATION for TR Diesel Water Engine

TR1 ENGINE

Power ranges: 5.5 - 9.5 kW; 7.4 - 12.7 bhp

Variable or fixed speed; full load speed range: 1500 - 2500 r/min

Reliable, durable, heavy duty, air cooled diesel engines

Special Attributes

1. Variable and fixed-speed builds available
2. Designed for continuous operation in ambient temperatures up to 52°C (122°F)
3. Oil cooling by means of air flow over deep crankcase finning

Basic Engine Characteristics

1. diesel fuelled
2. direct injection
3. 1 cylinder
4. air cooled
5. naturally aspirated
6. handstart (electric optional)

Emissions

1. Models under 19kW comply with EU Stage 3A exhaust emissions regulations

Design Features and Equipment

1. air cleaner
2. inlet and exhaust manifolds
3. self vent fuel system with individual fuel injection pumps
4. fuel filter
5. self regulating plunger type lubricating oil pump
6. spin-on lubricating oil filter
7. decompressor levers
8. flywheel
9. flywheel housing with SAE4 flange
10. 250 hour service intervals
11. mechanical governing
12. variable speed 900-2500 r/min
13. fixed speed 1500 and 1800 r/min
14. operators' handbook

Optional Items

1. 12V electric start
2. gear case power take-off (see over)

TR2 ENGINE

Power ranges: 11.0kW - 19.0 kW; 14.8 - 25.5 bhp

Variable or fixed speed; full load speed range: 1500 - 2500 r/min

Reliable, durable heavy duty air cooled diesel engines

Special Attributes

1. variable and fixed-speed builds available
2. designed for continuous operation in ambient temperatures up to 52°C (122°F)
3. oil cooling by means of air flow over deep crankcase finning

Basic Engine Characteristics

1. diesel fuelled
2. direct injection
3. 2 cylinders
4. air cooled
5. naturally aspirated
6. handstart (electric optional)

Design Features and Equipment

1. air cleaner
2. inlet and exhaust manifolds
3. self vent fuel system with individual fuel injection pumps
4. fuel filter
5. self regulating plunger type lubricating oil pump
6. spin-on lubricating oil filter
7. decompressor levers
8. flywheel
9. flywheel housing with SAE4 flange
10. 250 hour service intervals
11. mechanical governing:
12. variable speed 900-2500 r/min
13. fixed speed 1500 and 1800 r/min
14. operators' handbook

Emissions

1. models under 19kW comply with EU Stage 3A exhaust emissions regulations

Optional Items

1. 12V electric start
2. gear case power take-off (see over)

TR3 ENGINE

Power ranges: 16.8kW - 28.5 kW; 22.5 - 38.2 bhp

Variable or fixed speed; full load speed range: 1500 - 2500 r/min

Reliable, durable heavy duty air cooled diesel engines

Special Attributes

1. variable and fixed-speed builds available
2. designed for continuous operation in ambient temperatures up to 52°C (122°F)
3. oil cooling by means of air flow over deep crankcase finning

Basic Engine Characteristics

1. diesel fuelled
2. direct injection
3. 3 cylinders
4. air cooled
5. naturally aspirated
6. handstart (electric optional)

Design Features and Equipment

1. air cleaner
2. inlet and exhaust manifolds
3. self vent fuel system with individual fuel injection pumps
4. fuel filter
5. self regulating plunger type lubricating oil pump
6. spin-on lubricating oil filter
7. decompressor levers
8. flywheel
9. flywheel housing with SAE4 flange
10. 250 hour service intervals
11. mechanical governing:
 - variable speed 900-2500 r/min
 - fixed speed 1500 and 1800 r/min
12. operators' handbook

Emissions

1. models under 19kW comply with EU Stage 3A exhaust emissions regulations

Optional Items

1. 12V electric start
2. gear case power take-off (see over)

TR ENGINES TECHNICAL DATA SHEET

POWER OUTPUTS TO ISO 3046						
Variable Speed		r/min	1500*	1800*	2000	2500
TR1	Continuous Power	kW	5.5	6.7	7.3	8.6
		bhp	7.4	9.0	9.8	11.5
	Fuel Stop	kW	6.1	7.4	8.0	9.5
		bhp	8.2	9.9	10.7	12.7
TR2	Continuous Power	kW	11.0	13.1	14.5	17.3
		bhp	14.8	17.6	19.4	23.2
	Fuel Stop	kW	12.1	14.4	16.0	19.0
		bhp	16.2	19.3	21.5	25.5
TR3	Continuous Power	kW	16.8	20.2	22.2	25.9
		bhp	22.5	27.1	29.8	34.7
	Fuel Stop	kW	18.5	22.2	24.4	28.5
		bhp	24.8	29.8	32.7	38.2

TORQUE TO ISO 3046						
Variable Speed		r/min	1500	1800	2000	2500
TR1	Fuel Stop	Nm	38.8	39.2	38.2	36.3
		lbf ft	28.6	28.9	28.2	26.8
TR2		Nm	77.0	76.4	76.4	72.6
		lbf ft	56.8	56.3	56.3	53.5
TR3		Nm	117.8	117.8	116.5	108.9
		lbf ft	86.9	86.9	85.9	80.3

SPECIFICATION for TAF Diesel Water Engine

TAF1 ENGINE

ENGINE TYPE – Vertical, single cylinder, air-cooled, four-stroke cycle, compression ignition diesel engine

TECHNICAL SPECIFICATION		
No. of Cylinders		1
Bore x Stroke	(mm)	87.5 X 110
Cubic Capacity	(Ltr)	0.662
Compression Ratio		17.5 : 1
Rated Output as per IS: 11170	kW(hp)	4.41(6)
Rated Speed	rpm	1500
Torque at full load (Crankshaft drive)	kN-m(kg-m)	0.029 (2.865)
Torque at full load (Camshaft drive)	kN-m(kg-m)	0.057 (5.730)
Crankshaft Center Height	(mm)	203
Specific Fuel Consumption (SFC)	(gm/hp-hr)	195 +5%
Lub Oil Consumption		0.8 % of SFC
Lub Oil Sump Capacity	(Ltr)	3.7 at higher level mark on dipstick
Fuel Tank Capacity	(Ltr)	6.5
Overall Dimensions of the standard engine (Length X Width X Height)	(mm)	531 X 546 X 856
Engine Weight (dry) with all fittings excluding packaging	(kg)	163
Rotation while looking at the flywheel		Clockwise / Anti clockwise
Power Take-off		Gear end
Starting		Hand Start
Governing		Class"A2/B1"
Type of fuel injection		Direct Injection
Overloading capacity of engine		10% of the rated output

TAF2 ENGINE

ENGINE TYPE – Vertical, double cylinder, air-cooled, four-stroke cycle, compression ignition diesel engine

TECHNICAL SPECIFICATION		
No. of Cylinders		2
Bore x Stroke	(mm)	87.5 X 110
Cubic Capacity	(Ltr)	1.324
Compression Ratio		17.5 : 1
Rated Output as per IS: 11170	kW(hp)	8.83(12)
Rated Speed	rpm	1500
Torque at full load (Crankshaft drive)	kN-m(kg-m)	0.057 (5.730)
Torque at full load (Camshaft drive)	kN-m(kg-m)	0.115 (11.459)
Crankshaft Center Height	(mm)	203
Specific Fuel Consumption (SFC)	(gm/hp-hr)	195 +5%
Lub Oil Consumption		0.8 % of SFC
Lub Oil Sump Capacity	(Ltr)	7.2 at higher level mark on dipstick

Fuel Tank Capacity	(Ltr)	11.5
Overall Dimensions of the standard engine (Length X Width X Height)	(mm)	700 X 546 X 878
Engine Weight (dry) with all fittings excluding packaging	(kg)	276
Rotation while looking at the flywheel		Clockwise
Power Take-off		Gear end
Starting		Hand Start
Governing		Class"A2/B1"
Type of fuel injection		Direct Injection
Overloading capacity of engine		10% of the rated output

TAF3 ENGINE

ENGINE TYPE – Vertical, triple cylinder, air-cooled, four-stroke cycle, compression ignition diesel engine

TECHNICAL SPECIFICATION		
No. of Cylinders		3
Bore x Stroke	(mm)	87.5 X 110
Cubic Capacity	(Ltr)	1.324
Compression Ratio		17.5 : 1
Rated Output as per IS: 11170	kW(hp)	8.83(12)
Rated Speed	rpm	1500
Torque at full load (Crankshaft drive)	kN-m(kg-m)	0.057 (5.730)
Torque at full load (Camshaft drive)	kN-m(kg-m)	0.115 (11.459)
Crankshaft Center Height	(mm)	203
Specific Fuel Consumption (SFC)	(gm/hp-hr)	195 +5%
Lub Oil Consumption		0.8 % of SFC
Lub Oil Sump Capacity	(Ltr)	7.2 at higher level mark on dipstick
Fuel Tank Capacity	(Ltr)	11.5
Overall Dimensions of the standard engine (Length X Width X Height)	(mm)	700 X 546 X 878
Engine Weight (dry) with all fittings excluding packaging	(kg)	276
Rotation while looking at the flywheel		Clockwise
Power Take-off		Gear end
Starting		Hand Start
Governing		Class"A2/B1"
Type of fuel injection		Direct Injection
Overloading capacity of engine		10% of the rated output

GENERAL SPECIFICATIONS FOR STEEL TANK

TANK PLATE

Fab Tank plates undergo a reasonable amount of stress due to water pressure exerted from within the tank. The thickness of the zinc coating on the design panel and not the thickness of the steel is the key to withstanding the water pressure and this all depends on the depth of the tank.

Fab Tanks uses the recommended thickness of zinc coating according to the South African National Standard (SANS) to protect the lifespan of hot-dipped galvanised tanks.

- Maximum depth of the standard tank: 5 panels (6.1 m)

TANK PLATE SPECIFICATIONS

Dimensions: almost any size tank can be constructed using our standard panel size and range of thickness

- **Standard panel size:** 1220 x 1220 mm
- **Thickness:** 3 mm, 4.5 mm and 6 mm

TANK PLATE GUIDELINES

The following guidelines apply for using the appropriate panel thickness to withstand maximum water pressure.

Maximum water pressure	(m head)	1.22	2.44	3.66	4.88
Panel thickness	(mm)	3.0	3.0	4.5	4.5

DOME ROOFING

Individual roof sheets span 1, 2 and 3 panels depending on the width of the tank. When tanks are wider than 3 panels, roofing sheets are overlapped and bent up to ensure optimal sealing.

Roof sheets are available in the following dimensions:

- **Thickness:** 5 mm or 1 mm
- **Width:** 610 mm or 305 mm

The most cost-effective of the above dimensions is: 1 mm/305 mm

INTERNAL BRACING

Depending on the dimension of the water tank, internal bracing consisting of angle iron is welded to base plates. These are then bolted to the tank panels.

CUSTOMISED TANK SPECIFICATIONS

Fab Tanks can design smaller customised tanks such as L-shaped or partitioned tanks that require only half panels. External bracing is also an option for custom designs.

ELEVATED TANKS

Standard elevated water storage tanks that require support tower steelwork include our standard components. Should the customer request walkways around the base of the tank or access ladders rest platforms, the general specifications can be adapted accordingly.

SPECIFICATIONS FOR MAINTENANCE AND SAFETY

Safe access all around pressed steel tanks is required for the purpose of tightening bolts.

The recommended minimum space around the four sides and above the roof is 600 mm and 450 mm beneath the tank.

Except for standard components and specifications for Fab Tanks water storage solutions, most of our designs can be custom made. This means general specifications can be adapted according to the designs and requirements of the customer.

SUMMARY OF PRICING SCHEDULE GRAND TOTALS

TABLE 1	SUB-TOTAL	
TABLE 2	SUB-TOTAL	
TABLE 3	SUB-TOTAL	
TABLE 4	SUB-TOTAL	
TABLE 5	SUB-TOTAL	
TABLE 6	SUB-TOTAL	
TABLE 7	SUB-TOTAL	
TABLE 8	SUB-TOTAL	
TABLE 9	SUB-TOTAL	
TABLE 10	SUB-TOTAL	
TABLE 11	SUB-TOTAL	
TABLE 12	SUB-TOTAL	
TABLE 13	SUB-TOTAL	
TABLE 14	SUB-TOTAL	
TABLE 15	SUB-TOTAL	
GRAND TOTAL		

The increment equivalent to the Consumer Price Index (CPI) plus 1% but not exceeding 7.5% of Rates offered will be subject to approval after 1 year of contract.

TRAVELLING COST

DEPARTMENT OF TRANSPORT - TARIFF FOR THE USE OF MOTOR TRANSPORT FROM PROVIDED WORKSHOP ADDRESS WITHIN NMMDM JURISDICTION

VEHICLE TYPE	CAPACITY	FUEL TYPE	COST PER KILOMETER Department of Transport - Tariff for the use of motor transport
TLB			Per hour = R
LDV			DoT rate
4 TON Truck			DoT rate

Transport tariffs must be given as a rate per kilometre as per updated **Department of Transport – Tariff for the use of motor transport** at the time of claim.