

Ref. No.: NWSDB/SBD/S&I/ Water Pump (below 30kW)/LC /Ver2

Revised on 04-06-2024

**GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC
OF SRI LANKA**

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

**SUPPLY AND INSTALLATION OF WATER PUMPING SETS, MOTOR CONTROL
CENTRE (MCC) AND ACCESSORIES
(Below 30 kW) (Local Currency)**

CONTRACT No.:

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

GALLE ROAD,

RATMALANA.

SRI LANKA

**.....
(MONTH & YEAR)**

DOCUMENT ISSUANCE CERTIFICATE

(To be filled at the time of issue by the authorized issuing officer)

1. STANDARD DOCUMENT REFERENCE NUMBER: NWSDB/SBD/ S&I/Water Pump/LC/Ver2
2. CONTRACT NUMBER :
3. a) ISSUED TO :
- b) ADDRESS :
- c) TELEPHONE NUMBER :
- d) FACSIMILE NUMBER :
4. a) NON REFUNDABLE TENDER FEE : Rs. RECEIVED/NOT RECEIVED
 IN CASH/BANK DRAFT
- b) RECEIPT/BANK DRAFT NUMBER :
5. NUMBER OF COPIES ISSUED :
6. NUMBER OF CANCELLED COPIES ISSUED :
7. CANCELLED COPY FEE : Rs..... RECEIVED/NOT RECEIVED
 (IN CASH/BANK DRAFT)
8. BUSINESS REGISTRATION NUMBER :
9. a) ISSUING OFFICER :
- b) DESIGNATION :
- c) SIGNATURE :
10. PLACE OF ISSUE :
11. SEAL :
12. DATE : TIME :

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CHECKLIST OF SUBMISSIONS

CHECKLIST OF SUBMISSIONS

* **Note: Please mark 'Y' in the cages under the 'Remarks' column if submissions are made.**
 'N' or 'N/A' should be marked for cases of 'No submissions' and 'Not applicable' respectively.

| No. | Checklist | Reference | | Remarks * |
|-----|---|----------------------------|-------------------------|--------------|
| | | Instructions to Bidders | | |
| (a) | Documentary evidence to establish eligibility of bidder | Page No 1 -5, 1- 6 | Clause No. 4 -1 | |
| (b) | Certified copy of business registration | Page No. 1 - 6 | Clause No. 4.1 (vii) | |
| (c) | The Bidder's technical and production capability necessary to perform the Contract | Page No. 1 - 6, 1 - 7 | Clause No 4.2 (iii) | |
| (d) | Documentary evidence to establish qualifications for the performance of the Contract | Page No. 1 - 6, 1- 7 | Clause No. 4.2 | |
| (e) | The agreement of the manufacturer or producer to confirm that the supply will be made in accordance with the Delivery Schedule. | Page No. 1 - 7 | Clause No. 4.2 (v) | |
| (f) | In the case of a bidder offering to supply Goods under the Contract which the bidder does not manufacture or otherwise produce, authorization by the manufacturer or producer of Goods as his accredited agent. | Page No. 1 - 7 | Clause No. 4.2 (vi) | |
| (g) | Documentary evidence to establish that goods and related services offered are from an eligible source and origin | Page No. 1 - 7 | Clause No. 5 | |
| (h) | Duly completed all sections of Bidding Documents. (Bidder shall fill the Schedule of Particulars, BOQ etc., indicating any deviations to specifications under the corresponding schedule of particulars) | Page No. 1-9 | Clause No. 11.1 (a) | |
| (i) | Subsequent Addendum/Addenda (if any) | Page No. 1 - 9 | Clause No. 11.1 (h) | |
| (j) | Product Conformity Certificates and Quality Management System Certificates | Page No. 1- 10 | Clause No. 11.1(k) | |
| (k) | Company Registration | Page No. 1 - 10 | Clause No. 11.1 (m) | |
| (l) | Other Document comprising the bid | Page No. 1 - 10 | Clause No. 11.1 (n) | |
| (m) | Certified Copy of the VAT Registration Certificate | Page No. 1 - 11, 1 - 12 | Clause No. 14.4 | |
| (n) | Bid Security | Page No. 1 - 14, 1 - 15 | Clause No. 20 | |
| (o) | Certificates of registration of the contract with the registrar of public contracts as per the Act No. 3 of 1987. (If required) | Page No. 1-25 | Clause No. 47 | |
| | Any other document as given below: | | | |

INVITATION FOR BIDS

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

INVITATION FOR BIDS

**SUPPLY AND INSTALLATION OF WATER PUMPING SETS, MOTOR
CONTROL CENTRE (MCC) AND ACCESSORIES**

.....**WATER SUPPLY SCHEME**

CONTRACT No.:

1. The Chairman, Department Procurement Committee, National Water Supply and Drainage Board (NWSDB), Galle Road, Ratmalana, Sri Lanka on behalf of NWSDB will receive sealed bids for the Supply and Installation of
..... for Water Supply Scheme up to closing of bids at hours on
2. Bidding documents are available at the office of the Assistant General Manager (Tenders and Contracts Section), National Water Supply & Drainage Board (NWSDB), Galle Road, Ratmalana, Sri Lanka between 09:00 hours to 15:00 hours on normal working days up to, upon payment of a non refundable fee of Rs.plus applicable VAT and additional amount of Rs.or US\$ if the Bidding document is to be dispatched by courier.
3. Bidding Documents may be inspected free of charge at the office of the Assistant General Manager (Tenders and Contracts Section), NWSDB, Galle Road, Ratmalana, Sri Lanka.
4. Bidding Documents will be issued only to those who submit a written application on the bidder's official letterhead to the address indicated in the bid notice and a proof of payment of the non-refundable document fee as specified in the Bid notice.
5. To be eligible for contract award, the successful bidder shall not have been blacklisted
6. Alternative bids shall not be accepted.
7. Sealed bids may be either dispatched by registered post or hand delivered to the Assistant General Manager (Tenders and Contracts Section), NWSDB, Galle Road, Ratmalana, Sri Lanka to receive on or before the closing time. Late Bids will be rejected.
8. All Bids shall be accompanied by a bid security of Rupees.....and the bid security shall be valid upto.....(*Specify the Date*).
9. Bids will be opened immediately after the closing of Bids, at the office of the Assistant General Manager (Tenders and Contracts Section), NWSDB, Galle Road, Ratmalana, Sri Lanka. Bidders or their authorised representatives may be present at the opening of bids.
10. For further details, please contact the Assistant General Manager (Tenders Contracts Section), NWSDB, Galle Road, Ratmalana, Sri Lanka on telephone number 94-11-2605328 or 94-11-2638999 Extension 1750 or facsimile number 94 -11-2635885.

**Chairman,
NATIONAL WATER SUPPLY AND DRAINAGE BOARD**

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

INVITATION FOR BIDS

**SUPPLY AND INSTALLATION OF WATER PUMPING SETS, MOTOR
CONTROL CENTRE (MCC) AND ACCESSORIES**

..... **WATER SUPPLY SCHEME**

CONTRACT No.:

1. The Chairman, Regional Procurement Committee, (*Insert Name of the RSC*) of the National Water Supply and Drainage Board (NWSDB), (*Insert Relevant RSC Address*) now invites sealed bids for supply and Installation of for Water Supply Scheme up to closing of Bids at hours on
2. Bidding documents are available at the office of the (*Insert Relevant RSC Address*) between 09:00 hours to 15:00 hours on normal working days up to, upon payment of a non-refundable fee of Rs. plus applicable VAT and additional amount of Rs. if the Bidding document is to be dispatched by courier.
3. Bidding Documents may be inspected free of charge at the office of the (*Insert Relevant RSC Address*).
4. Bidding Documents will be issued only to those who submit a written application on the bidder's official letterhead to the address indicated in the bid notice and a proof of payment of the non-refundable document fee as specified in the Bid notice.
5. To be eligible for contract award, the successful bidder shall not have been blacklisted.
6. Alternative bids shall not be accepted.
7. Sealed bids may be either dispatched by registered post or hand delivered to the office of (*Insert Relevant RSC Address*) to receive on or before the closing time. Late bids will be rejected.
8. All Bids shall be accompanied by a bid security of Rupees and the bid security shall be valid up to (*Specify the Date*).
9. Bids will be opened immediately after the closing of Bids, at the office of the Bidders or their authorized representatives may be present at the opening of bids.
10. For further details, please contact the (*Insert Relevant RSC Address*) on telephone number or facsimile number

**Deputy General Manager
National Water Supply & Drainage Board**

.....
.....
(*Insert Relevant RSC Address*)

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

INVITATION FOR BIDS

**SUPPLY AND INSTALLATION OF WATER PUMPING SETS, MOTOR
CONTROL CENTRE (MCC) AND ACCESSORIES**

..... **WATER SUPPLY SCHEME**

CONTRACT No.:

1. The Chairman, Project Procurement Committee, (Insert Name of the Project) of the National Water Supply and Drainage Board (NWSDB),(Insert Relevant Project Office Address) now invites sealed bids for supply and Installation of for Water Supply Scheme up to closing of Bids at hours on
2. Bidding documents are available at the office of the (Insert Relevant Project Office Address) between 09:00 hours to 15:00 hours on normal working days up to, upon payment of a non refundable fee of Rs. plus applicable VAT and additional amount of Rs. if the Bidding document is to be dispatched by courier.
3. Bidding Documents may be inspected free of charge at the office of the (Insert Relevant Project Office Address).
4. Bidding Documents will be issued only to those who submit a written application on the bidder's official letterhead to the address indicated in the bid notice and a proof of payment of the non-refundable document fee as specified in the Bid notice.
5. To be eligible for contract award, the successful bidder shall not have been blacklisted.
6. Alternative bids shall not be accepted.
7. Sealed bids may be either dispatched by registered post or hand delivered to the office of (Insert Relevant Project Office Address) to receive on or before the closing time. Late bids will be rejected.
8. All Bids shall be accompanied by a bid security of Rupees.....and the bid security shall be valid up to..... (Specify the Date).
9. Bids will be opened immediately after the closing of Bids, at the office of the (Insert Relevant Project Office Address) Bidders or their authorized representatives may be present at the opening of bids.
10. For further details, please contact the.....(Insert Relevant Project Office Address) on telephone numberor facsimile number

Project Director

National Water Supply & Drainage Board

.....

..... (Insert Relevant Project Office Address)

1. INSTRUCTION TO BIDDERS

2. GENERAL CONDITIONS OF CONTRACT

3. FORM OF BID

THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

SUPPLY AND INSTALLATION OF WATER PUMPING SETS, MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES

..... WATER SUPPLY SCHEME

CONTRACT No.:

FORM OF BID

The Chairman,
Department Procurement Committee,
National Water Supply and Drainage Board,
Galle Road,
Ratmalana.

I/We, the undersigned, having authority to sign this Bid and having read and fully acquainted myself/ourselves with the contents of the Information and Instructions to Bidders and Terms and Conditions of Tender pertaining to the above bid, along with Bills thereto, do hereby undertake to supply the Goods and Services referred to therein, in accordance with the aforesaid Instructions, Terms and Conditions for a total Bid price of Rupees (in words) (LKR.....) (excluding VAT). The make up of the aforesaid total Bid Price is given in the accompanying Bills of Quantities.

I/We confirm that this offer shall be open for acceptance until as given in the Bidding Data and that it will not be withdrawn or revoked prior to that date.

I/We attach hereto the following documents as part of my/our Bid.

1. Duly completed sections 1 to 12 of Bidding Documents.
2. Documentary evidence to establish eligibility of bid.
3. Documentary evidence to establish that goods and related services are offered from an eligible source and origin.
4. Documentary evidence to establish eligibility of goods offered.
5. Bid Security.
6. Documentary evidence to establish qualifications for the performance of the Contract.
7. Contract Data.
8. Bidding Data.
9. Duly filled Appendices.
10. Any other document.

I/We declare that the photostat copies of documents and certificates submitted as part of my/our Bid are true copies of such documents and certificates. Also in case of ISO 9001: 2015 certificate(s), I/we confirm that I/we have verified that the certificate issuing authority has accreditation to issue same and materials offered conform to the ISO series certificates and the specified product standard certificates.

I/We further agree to the right of the Board to debar me/us from participating in its future bids in the event that my/our submitted copies or documents are found to be forged or tampered with.

I/We understand that you are not bound to accept the lowest bid and that you reserve the right to reject any or all bids or to accept any part of a bid without assigning any reasons thereto.

I/We undertake to adhere to the Delivery Schedule given in Contract Data.

My/Our Bank Reference is as follows.....
.....

Signature of Bidder :
Name of Bidder :
Address :
Telephone Number :
Facsimile Number :
Date :

Witnesses

1. Signature :
Capacity :
Name :
Address :

2. Signature :
Capacity :
Name :
Address :

THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

SUPPLY AND INSTALLATION OF WATER PUMPING SETS, MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES

FOR WATER SUPPLY SCHEME

CONTRACT No.:

FORM OF BID

The Chairman,
Regional Procurement Committee,

.....
.....,

I/We, the undersigned, having authority to sign this Bid and having read and fully acquainted myself/ourselves with the contents of the Information and Instructions to Bidders and Terms and Conditions of Bid and Delivery Schedule pertaining to the above Bid, along with Bills thereto, do hereby undertake to supply the Goods and Services referred to therein, in accordance with the aforesaid Instructions, Terms and Conditions for a total Bid price of Sri Lanka Rupees
.....
.....(in words)
Rs.....(in figures)
(excluding VAT) The make up of the aforesaid total Bid Price is given in the accompanying Bills of Quantities

I/We confirm that this offer shall be open for acceptance until as given in the Bidding Data and that it will not be withdrawn or revoked prior to that date.

I/We attach hereto the following documents as part of my/our Bid.

1. Duly completed Sections 1 to 12 of Bid Documents.
2. Documentary evidence to establish eligibility of Bidder.
3. Documentary evidence to Establish qualification to consider for the responsiveness to the contract.
4. Documentary evidence to establish that goods are offered from an eligible source and origin.
5. Documentary evidence to establish eligibility of goods offered.
6. Bid Security.
7. Documentary evidence to establish qualifications for the performance of the Contract.
8. Bidding Data.
9. Duly filled Appendices.
10. Any other document.

I/We declare that the photostat copies of documents and certificates submitted as part of my/our Bid are true copies of such documents and certificates. Also in case of ISO 9001:2008/2015 certificate, and Product conformity certificate (s) as listed in the specifications. I/we confirm that I/we have verified that the certificate issuing authority has accreditation to issue same

and materials offered conform to the ISO 9001:2015 certificates and the specified product standard certificates.

I/We further agree to the right of the Board to debar me/us from participating in its future Bids in the event that my/our submitted copies or documents are found to be forged or tampered with.

I/We understand that you are not bound to accept the lowest Bid and that you reserve the right to reject any or all Bids or to accept any part of a Bid without assigning any reasons thereto.

I/We undertake to adhere to the Delivery Schedule given in the Contract Data.

My/Our Bank Reference is as follows:
.....

Signature of Bidder :
Name of Bidder :
Address :
Capacity :
Telephone Number :
Facsimile Number :
Date :

Witnesses

1. Signature :
Name :
Address :
Capacity :
2. Signature :
Name :
Address :
Capacity :

THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

**SUPPLY AND INSTALLATION OF WATER PUMPING SETS, MOTOR
CONTROL CENTRE (MCC) AND ACCESSORIES**

FOR WATER SUPPLY SCHEME

CONTRACT No.:

FORM OF BID

The Chairman,
Project Procurement Committee,

.....
.....,

I/We, the undersigned, having authority to sign this Bid and having read and fully acquainted myself/ourselves with the contents of the Information and Instructions to Bidders and Terms and Conditions of Bid and Delivery Schedule pertaining to the above Bid, along with Bills thereto, do hereby undertake to supply the Goods and Services referred to therein, in accordance with the aforesaid Instructions, Terms and Conditions for a total Bid price of Sri Lanka Rupees
.....
.....(in words)
Rs.....(in figures)
(excluding VAT) The make up of the aforesaid total Bid Price is given in the accompanying Bills of Quantities

I/We confirm that this offer shall be open for acceptance until as given in the Bidding Data and that it will not be withdrawn or revoked prior to that date.

I/We attach hereto the following documents as part of my/our Bid.

1. Duly completed sections 1 to 12 of Bid Documents.
2. Documentary evidence to establish eligibility of Bidder.
3. Documentary evidence to Establish qualification to consider for the responsiveness to the contract.
4. Documentary evidence to establish that goods are offered from an eligible source and origin.
5. Documentary evidence to establish eligibility of goods offered.
6. Bid Security.
7. Documentary evidence to establish qualifications for the performance of the Contract.
8. Bidding Data.
9. Duly filled Appendices.
10. Any other document.

I/We declare that the photostat copies of documents and certificates submitted as part of my/our Bid are true copies of such documents and certificates. Also in case of ISO 9001:2015 certificate, and Product conformity certificate (s) as listed in the specifications I/we confirm that I/we have verified that the

certificate issuing authority has accreditation to issue same and materials offered conform to the ISO 9001:2015 certificate and the specified product standard certificates.

I/We further agree to the right of the Board to debar me/us from participating in its future Bids in the event that my/our submitted copies or documents are found to be forged or tampered with.

I/We understand that you are not bound to accept the lowest Bid and that you reserve the right to reject any or all Bids or to accept any part of a Bid without assigning any reasons thereto.

I/We undertake to adhere to the Delivery Schedule given in the Contract Data.

My/Our Bank Reference is as follows:

.....

Signature of Bidder :

Name of Bidder :

Address :

Capacity :

Telephone Number :

Facsimile Number :

Date :

Witnesses

1. Signature :

Name :

Address :

Capacity :

2. Signature :

Name :

Address :

Capacity :

4. BIDDING DATA

The Bidding Data is a part of Instructions to Bidders and should be read in conjunction with the Instructions to Bidders.

If there is a discrepancy found in the Instructions to Bidders and the Bidding Data, the Content in the Bidding Data shall supersede the Content in the Instructions to Bidders.

(Note: What is typed in italic letters are guide lines to prepare the Bidding Data and they shall be removed after preparation of the Bidding Data.)

Bidding Data

(Please note that the clause numbers given here under are that of Instruction to Bidder)

The following specific data for the goods and related services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Clause Reference

A. General

1.1 The Purchaser / Employer is

Name: National Water Supply and Drainage Board
Address: Galle Road - Ratmalana
Sri Lanka

Name of authorized Representative :

The Chairman,
National Water Supply and Drainage Board
Galle Road - Ratmalana
Sri Lanka

The Works consist of

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....located at

Intended Completion Date is Days from the Start Date.

Name of the Contract :

Contract no.

The office for collection of bid forms is
Assistant General Manager (Tenders & Contracts Section)
NWSDB, Galle Road,
Ratmalana.

The non-refundable fee is Rupees Plus VAT, payable in cash

The Bid forms will be issued until

2.1 The source of funding is:

- 4.1 (x)** Add to Clause
Joint Ventures are not acceptable.
- 4.2 (i)** Minimum qualification to qualify for the award of the Contract is :
Experience in Supply and Installation works of at least one contract of a similar nature and complexity equivalent to the supply and Installation works of kW (*indicate figure*) over the last 5 years.
- Total monetary value of the supply/supply & installation works performed for the last five years is Rs.....Mn
- 4.2 (iv)** Working Capital ^{*1} + present available credit facilities for the company^{*2} + credit facilities exclusively for this contract - 0.1 x current work commitments^{*3} > Rs.....^{*4} .

- *1 Working Capital = Current Assets – Current Liabilities
- *2 A letter to prove the availability of credit facilities issued by a Bank within a month prior to date of closing of Bids.
- *3 current work commitment = work remaining uncompleted (Documentary evidence to justify shall be submitted)
- *4 80% of estimated cost of the Bid.

B. Contents of Bidding Documents

- 7.1** For **Clarification of bid purposes** only, the Employer's address is:
Assistant General Manager (Tenders and Contracts Section),
National Water Supply and Drainage Board,
Galle Road, Ratmalana.
Fax . 011 – 2635885 Tel:011-2605328

C. Preparation of Bids

- 11.1 (o)** The Bidder shall submit the following additional documents:
The information listed below shall be submitted with the offer to the Engineer for review. The submittals shall include:
1. Dimensioned cross sectional drawing of the pump complete with materials of manufacture.
 2. Pump performance curves showing
 - Head (m) Vs flow (m³/h or l/s)
 - Pump efficiency Vs flow (m³/h or l/s)
 - Power required to drive pump (kW) Vs flow (m³/h or l/s)
 - NPSH Required (m) Vs flow (m³/h or l/s)
 3. All motor information.

4. Proposed panel layout (indicators, meters, switches etc.)
5. Specification for MCCB's, MCB's, Busbars, Drives etc.
6. Specification for transducers, sensors etc.
7. Printed literature – supporting details given in the questionnaire.

- 15.1** The bidder shall quote the Contract Price in Sri Lankan Rupees.
- 17.3** Period of time the Goods are expected to be functioning (for the purpose of spare parts):
- 19.1** The Bid shall be valid for Days from the date closing of the bids as specified in the IFB.
- 20.1** Bid shall include a Bid Security in the format included in **Section 11** Specimen Forms
- 20.2** The amount of the Bid Security shall be: Rs.
- 20.3** The validity period of the bid security shall be until.....(*give a Date*)
[This shall be filled by T&C Section]

D. Submission and Opening of Bids

- 22.2 (ii)** The inner and outer envelopes shall be addressed to the following address.
The Chairman,
Department Procurement Committee,
C/o Assistant General Manager (Tenders & Contracts Section),
National Water Supply & Drainage Board,
Galle Road,
Ratmalana.
- 22.2 (iii)** Name of the Contract:
Contract no.
- 23.1** The Procurement Committee's Address for the submission (an on behalf of the Board) and Bid opening is;
The Chairman,
Department Procurement Committee,
C/o Assistant General Manager (Tenders & Contracts Section),
National Water Supply & Drainage Board,
Galle Road,
Ratmalana

The deadline for the submission of bids is as specified in the IFB

Date Time

26.1 The place for opening of bids,
Assistant General Manager (Tenders & Contracts) Section,
National Water Supply & Drainage Board,
Galle Road,
Ratmalana

Date Time : Immediately after closing of bids

- 35.2 (xii)**
- i. Economic life of Pumping Unit ___ Years.
 - ii. Discounting Rate ___%.
 - iii. Power Cost Rs/ kWh.
 - iv. Annual Operation as mentioned in the particular specification.

E. Evaluation and Comparison of Bids

42.1 Prevailing rate of stamp duty is nil.

43.1 The amount of performance security shall be 10 % of the contract Price.

45.1 The amount of Advance payment is 20% of the contract value.
Advance payment Guarantee shall be obtained at the contractor's cost.

48.1 The equipment to be provided under this contract shall be suitable for installation and operation at elevations of about m above sea level inside weather protected structures. Outside ambient temperatures range between and °C and water temperature varies between and °C.

Relative Humidity is expected to range between and 100%.
Atmosphere is dusty.

Bidding Data

(Please note that the clause numbers given here under are that of Instruction to Bidder)

The following specific data for the goods and related services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Clause Reference

A. General

1.1

The Purchaser / Employer is

Name: National Water Supply and Drainage Board
Address: Galle Road - Ratmalana
Sri Lanka

Name of authorized Representative :

The Chairman,
National Water Supply and Drainage Board
Galle Road - Ratmalana
Sri Lanka

The Works consist of

.....
.....
.....
.....
.....
.....
.....
.....located at

Intended Completion Date is Days from the Start Date.

Name of the Contract :

Contract no.

The office for collection of bid forms is

The Chairman, Regional Procurement Committee,
.....
.....
.....

[Insert the relevant RSC address]

The non-refundable fee is Rupees Plus VAT, payable in cash

The Bid forms will be issued until

- 2.1 The source of funding is:
- 4.1 (x) Add to Clause
Joint Ventures are not acceptable.
- 4.2 (i) Minimum qualification to qualify for the award of the Contract is :
Experience in Supply and Installation works of at least one contract of a similar nature and complexity equivalent to the supply and Installation works of kW (*indicate figure*) over the last 5 years.
- Total monetary value of the supply/supply & installation works performed for the last five years is Rs.....Mn
- 4.2 (iv) Working Capital ^{*1} + present available credit facilities for the company^{*2} + credit facilities exclusively for this contract - 0.1 x current work commitments^{*3} > Rs.....^{*4}
- *1 Working Capital = Current Assets – Current Liabilities
 - *2 A letter to prove the availability of credit facilities issued by a Bank within a month prior to date of closing of Bids.
 - *3 current work commitment = work remaining uncompleted (Documentary evidence to justify shall be submitted)
 - *4 80% of estimated cost of the Bid.

B. Contents of Bidding Documents

- 7.1 For **Clarification of bid purposes** only, the Employer’s address is:
The Chairman, Regional Procurement Committee,
.....
.....
.....
.....
[Insert the relevant RSC address]

Fax Telephone

C. Preparation of Bids

- 11.1 (o) The Bidder shall submit the following additional documents:
The information listed below shall be submitted with the offer to the Engineer for review. The submittals shall include:
1. Dimensioned cross sectional drawing of the pump complete with materials of manufacture.
 2. Pump performance curves showing
 - Head (m) Vs flow (m³/h or l/s)
 - Pump efficiency Vs flow (m³/h or l/s)

- Power required to drive pump (kW) Vs flow (m³/h or l/s)
 - NPSH Required (m) Vs flow (m³/h or l/s)
3. All motor information.
 4. Proposed panel layout (indicators, meters, switches etc.)
 5. Specification for MCCB's, MCB's, Busbars, Drives etc.
 6. Specification for transducers, sensors etc.
 7. Printed literature – supporting details given in the questionnaire.

- 15.1** The bidder shall quote the Contract Price in Sri Lankan Rupees.
- 17.3** Period of time the Goods are expected to be functioning (for the purpose of spare parts):
- 19.1** The Bid shall be valid for Days from the date closing of the bids as specified in the IFB.
- 20.1** Bid shall include a Bid Security in the format included in **Section 11** Specimen Forms
- 20.2** The amount of the Bid Security shall be: Rs.
- 20.3** The validity period of the bid security shall be until.....(give a Date)
[This shall be filled by T&C Section]

D. Submission and Opening of Bids

- 22.2 (ii)** The inner and outer envelopes shall be addressed to the following address.
- The Chairman, Regional Procurement Committee,
.....
.....
.....
[Insert the relevant RSC address]

- 22.2 (iii)** Name of the Contract :
Contract no.

- 23.1** The Procurement Committee's Address for the submission (an on behalf of the Board) and Bid opening is;
- The Chairman, Regional Procurement Committee,
.....
.....
.....
[Insert the relevant RSC address]

The deadline for the submission of bids is as specified in the IFB

Date Time

26.1 The place for opening of bids,

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

[Insert the relevant RSC address]

Date Time : Immediately after closing of bids

35.2 (xii)

- i. Economic life of Pumping Unit ____ Years.
- ii. Discounting Rate ____%.
- iii. Power Cost Rs/ kWh.
- iv. Annual Operation as mentioned in the particular specification

E. Evaluation and Comparison of Bids

42.1 Prevailing rate of stamp duty is nil.

43.1 The amount of performance security shall be 10 % of the contract Price

45.1 The amount of Advance payment is 20% of the contract value.
Advance payment Guarantee shall be obtained at the contractor’s cost.

48.1 The equipment to be provided under this contract shall be suitable for installation and operation at elevations of about m above sea level inside weather protected structures. Outside ambient temperatures range between and °C and water temperature varies between and °C.

Relative Humidity is expected to range between and 100%.
Atmosphere is dusty.

Bidding Data

(Please note that the clause numbers given here under are that of Instruction to Bidder)

The following specific data for the goods and related services to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Clause Reference

A. General

1.1 The Purchaser / Employer is

Name: National Water Supply and Drainage Board
Address: Galle Road - Ratmalana
Sri Lanka

Name of authorized Representative :

The Chairman,
National Water Supply and Drainage Board
Galle Road - Ratmalana
Sri Lanka

The Works consist of

.....
.....
.....
.....
.....
.....
.....
.....located at

Intended Completion Date is Days from the Start Date.

Name of the Contract :

Contract no.

The office for collection of bid forms is

Chairman,
Project Procurement Committee,
.....
.....

The non-refundable fee is Rupees Plus VAT, payable in cash

The Bid forms will be issued until

- 2.1 The source of funding is:
- 4.1 (x) Add to Clause
Joint Ventures are not acceptable.
- 4.2 (i) Minimum qualification to qualify for the award of the Contract is :
Experience in Supply and Installation works of at least one contract of a similar nature and complexity equivalent to the supply and Installation works of kW (*indicate figure*) over the last 5 years.
- Total monetary value of the supply/supply & installation works performed for the last five years is Rs.....Mn
- 4.2 (iv) Working Capital ^{*1} + present available credit facilities for the company^{*2} + credit facilities exclusively for this contract - 0.1 x current work commitments^{*3} > Rs.....^{*4} .
- *1 Working Capital = Current Assets – Current Liabilities
 - *2 A letter to prove the availability of credit facilities issued by a Bank within a month prior to date of closing of Bids.
 - *3 current work commitment = work remaining uncompleted (Documentary evidence to justify shall be submitted)
 - *4 80% of estimated cost of the Bid.

B. Contents of Bidding Documents

- 7.1 For **Clarification of bid purposes** only, the Employer’s address is:
The Chairman, Project Procurement Committee,
.....
.....
.....
[Insert the relevant Project Office address]
- Fax Telephone

C. Preparation of Bids

- 11.1 (o) The Bidder shall submit the following additional documents:
The information listed below shall be submitted with the offer to the Engineer for review. The submittals shall include:
1. Dimensioned cross sectional drawing of the pump complete with materials of manufacture.
 2. Pump performance curves showing
 - Head (m) Vs flow (m³/h or l/s)
 - Pump efficiency Vs flow (m³/h or l/s)
 - Power required to drive pump (kW) Vs flow (m³/h or l/s)
 - NPSH Required (m) Vs flow (m³/h or l/s)
 3. All motor information.

4. Proposed panel layout (indicators, meters, switches etc.)
5. Specification for MCCB's, MCB's, Busbars, Drives etc.
6. Specification for transducers, sensors etc.
7. Printed literature – supporting details given in the questionnaire.

- 15.1** The bidder shall quote the Contract Price in Sri Lankan Rupees.
- 17.3** Period of time the Goods are expected to be functioning (for the purpose of spare parts):
- 19.1** The Bid shall be valid for Days from the date closing of the bids as specified in the IFB..
- 20.1** Bid shall include a Bid Security in the format included in Section 11 Specimen Forms
- 20.2** The amount of the Bid Security shall be: Rs.
- 20.3** The validity period of the bid security shall be until.....(give a Date) *[This shall be filled by T&C Section]*

D. Submission and Opening of Bids

- 22.2 (ii)** The inner and outer envelopes shall be addressed to the following address.
 The Chairman, Project Procurement Committee,

[Insert the relevant Project Office address]

Fax Telephone.....

- 22.2 (iii)** Name of the Contract :
 Contract no.

- 23.1** The Procurement Committee's Address for the submission (an on behalf of the Board) and Bid opening is;
 The Chairman, Project Procurement Committee,

[Insert the relevant Project Office address]

The deadline for the submission of bids is as specified in the IFB
 Date Time

26.1 The place for opening of bids,

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

[Insert the relevant Project Office address]

Date Time : Immediately after closing of bids

- 35.2 (xii)**
- i. Economic life of Pumping Unit ____ Years.
 - ii. Discounting Rate ____%.
 - iii. Power Cost Rs/ kWh.
 - iv. Annual Operation as mentioned in the particular specification

E. Evaluation and Comparison of Bids

42.1 Prevailing rate of stamp duty is nil.

43.1 The amount of performance security shall be 10 % of the contract Price

45.1 The amount of Advance payment is 20% of the contract value.
Advance payment Guarantee shall be obtained at the contractor's cost.

48.1 The equipment to be provided under this contract shall be suitable for installation and operation at elevations of about m above sea level inside weather protected structures. Outside ambient temperatures range between and °C and water temperature varies between and °C.

Relative Humidity is expected to range between and 100%.
Atmosphere is dusty.

5. CONTRACT DATA

The Contract Data is a part of General Conditions of Contract and should be read in conjunction with the General Conditions of Contract.

If there is a discrepancy found in the General Conditions of Contract and the Contract Data, the Content in the Contract Data shall supersede the Content in the General Conditions of Contract.

(Note: What is typed in italic letters are guide lines to prepare the Contract Data and they shall be removed after preparation of the Contract Data.)

Contract Data

(Please note that the Clause nos. given hereunder are that of General Conditions of Contract)

The following Contract Data shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

[The Purchaser shall select insert the appropriate wording using the samples below or other acceptable wording, and delete the text in italics]

1.1(g) Defects Liability Period is 365 Days

1.1(i) The Engineer is
General Manager,
National Water Supply and Drainage Board,
Galle Road, Ratmalana.

1.1(k) The Purchaser / Employer is
Name: National Water Supply and Drainage Board,
Address: Galle Road, Ratmalana
Name of Authorized Representative: The Chairman,
National Water Supply & Drainage Board,

1.1 (o) The Project Site(s)/Final Destination(s) is/are:
.....(*Location*)

1.1 (u) The Start Date shall be 14 Days from the Letter of Acceptance.

1.2 Engineer's Representative: _____
(*Project Director / Deputy General Manager of relevant RSC*)

8 For **notices**, the Purchaser's address shall be:

Attention:

Address:

Telephone:

Facsimile number:

Electronic mail address:

- 11.1** The Works consist of
.....
.....
.....
- 11.4** Contract period is
- 12** Details of Shipping and other Documents to be furnished by the Supplier are,
Work programme including Procurement of Pumps & Motor and Accessories
Installation drawings
Testing procedures
Technical literatures
Operation & Maintenance Manual
As Built Drawings
Technical details required for Training of Operation Staff
All documents requested for payment in ITB **Clause 15**
All Technical details for Automation (if applicable only)
Surge calculation (if applicable)
Technical literatures of Surge Protection System (Electrical/Hydraulic)
Any other document requested by the Employer/ Engineer
- 13.27.1** Contractor shall supply operation and maintenance manuals before the testing of pumps at site and as built drawing within two weeks from the date of completion of the work.
- 13.27.2** The Engineer shall with hold 5% of the Initial Contract price.
- 22.3** Contractor shall not produce or sell any items under the name of National Water Supply & Drainage Board to a third party.
- 23** The minimum insurance covers shall be :
- (a) The minimum cover for insurance of the Works and of Plant and Materials is 110% of the Initial Contract Price.
The maximum deductible for insurance of the Works and of Plant and Materials is 5% of the Initial Contract Price.
- (b) The minimum cover for loss or damage to Equipment is the replacement cost of the equipment.
The maximum deductible for insurance of Equipment is 5% of the replacement cost of the equipment.
- (c) The minimum cover for personal injury or death, for third party and employees of the Employer and other persons engaged by the Employer in the Works is Rs 1,000,000 per event, **number of events are unlimited**

- (d) The minimum cover for personal injury or death,
 - for the Contractor’s workmen is Rs. 1,000,000 per event, number of events and unlimited
 - Contractor’s employees other than workmen is Rs. 1,000,000 per event, number of events are unlimited.

23.8 Marine Insurance shall be in an amount equal to 110% of the CIF value of the goods from “warehouse to warehouse” on “all risk” Basis.

25.1 Tests to be performed

Material

Performance

Assembling

Any other test which affect for the durability and the trouble free operation of the good

Inspections to be done

Manufacture’s test - Comprehensive

Independent Inspection Agency - Comprehensive

26 Liquidated damages are Rs..... per Day
The maximum amount of liquidated damages shall be:10% of the Contract Price

27.3 The comprehensive warranty shall be valid up to three years from the date of taking over for trouble free operation.

The warranty shall cover following items/ parts (Generally Pumps, Motors and panel boards and other equipment)

27.5 Attend to repairs within Days from the Notification.

43.3 The contractor shall provide the following in three copies at least **14 Days** before handing over of the equipment.

- 1 Certified copies of all performance test results of pumps and motors.
- 2 Manufacturer’s Certification that all pumping units, motor control equipment is fully in conformance with the specification along with shipping documents.
- 3 Operation and Maintenance manuals of Pumps and Motors.
- 4 Control wiring diagrams for Electrical Panels. (Including Automatic Controls).
- 5 Spare Parts Manuals.

DELIVERY SCHEDULE

| Item No. | Description of Goods | Quantity <i>(as per BOQ)</i> | Unit | Final Destination <i>[Insert place of Delivery]</i> | Delivery Date |
|----------|----------------------|---------------------------------|------|--|--|
| | | | | | Purchaser's delivery date as per the contract |
| 01 | Pumps | | | | |
| 02 | Motor | | | | |
| 03 | Accessories | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PAYMENT SCHEDULE

| STAGE OF PAYMENT | | STAGE OF CONTRACT | DOCUMENT TO BE SUBMITTED | AMOUNT OF PAYMENT | REMARKS |
|------------------|--------------------------------------|--|--|--|----------------------------|
| 01 | Advance Payment | After signing of Contract Agreement | <ul style="list-style-type: none"> ◆ A written request for payment in the form of an invoice ◆ A bank guarantee for the equivalent amount ◆ The performance Guarantee | 20% of the initial contract price | Refer clause 15.3.1 |
| 02 | Interim Payment | On delivery to site | Document to be submitted <ul style="list-style-type: none"> a) Written request for the payment in the form of Invoice based on BOQ. b) Engineer's Representative's approval for the payment. c) Manufacturer's warranty certificate as per Clause 15 hereof. d) Manufacturer's Inspection and Test Certificate e) Certificate of origin f) Certificate of conformity to the requirements specified in the specifications. g) Inspection and test certificate by the third party inspection agency. | Up to 60% of the Initial Contract Price | Refer clause 15.3.2 |
| 03 | Payment on taking over | On taking over by the Engineer for the delivery installation and testing | <ul style="list-style-type: none"> a) A written request for final (balance) payment in the form of an invoice based on the BOQ. b) Engineer's Representative's approval for the payment. c) Submission of Bank guarantee for 5% of Contract price as a retention money. d) On production of a Taking Over Certificate issued by the Engineer. | Up to 100% of the initial Contract price | Refer clause 15.3.4 |
| 04 | Final Payment (Release of retention) | Successful completion of the contract after 28 days beyond defects liability Period. | <ul style="list-style-type: none"> a). Written request for the release of retention money b) Final Acceptance Certificate | Release the retention guarantee. | Refer Clause 15.3.4 |

6. SPECIFICATIONS

| | |
|--|------------------------|
| <ul style="list-style-type: none">• SPECIFICATIONS FOR MOTOR DRIVEN SELF LUBRICATED VERTICAL TURBINE PUMPING SETS AND ACCESSORIES | 6y-1 to 6y-18 |
| <ul style="list-style-type: none">• SPECIFICATIONS FOR BORE HOLE TYPE SUBMERSIBLE PUMPING SETS AND ACCESSORIES | 6z-1 to 6z-15 |
| <ul style="list-style-type: none">• SPECIFICATIONS FOR HORIZONTAL SHAFT DRIVEN DOUBLE SUCTION CENTRIFUGAL PUMPING SETS AND ACCESSORIES | 6aa-1 to 6aa-19 |
| <ul style="list-style-type: none">• SPECIFICATIONS FOR END SUCTION VERTICAL DELIVERY BACK PULL – OUT CENTRIFUGAL PUMPING SETS AND ACCESSORIES | 6ab-1 to 6ab-18 |
| <ul style="list-style-type: none">• SPECIFICATIONS FOR VERTICAL SHAFT DRIVEN DOUBLE SUCTION CENTRIFUGAL PUMPING SETS AND ACCESSORIES | 6ac-1 to 6ac-18 |
| <ul style="list-style-type: none">• SPECIFICATIONS FOR VERTICALLY/HORIZONTALLY MOUNTED IN LINE BOOSTER PUMPING SETS AND ACCESSORIES | 6ad-1 to 6ad-18 |

7. SCHEDULE OF PARTICULARS

*(Select the Specification and Schedule of Particulars
which are applicable to the particular contact)*

SCHEDULE OF PARTICULARS

TABLE OF CONTENTS

| | | PAGE NUMBER |
|----|--|--------------------|
| 1 | Vertical Turbine Pumping Set | 7 - 2 |
| 2 | Schedule of Particulars of Bore hole type submersible Pumping Sets and Accessories. | 7 - 5 |
| 3 | Schedule of Particulars of Horizontal shaft driven double suction Centrifugal Pumping Sets and Accessories. | 7 - 10 |
| 4. | Schedule of Particulars of End Suction Vertical delivery back pull – out Centrifugal Pumping sets and Accessories. | 7 – 15 |
| 5. | Schedule of Particulars of Vertical shaft driven double suction Centrifugal Pumps Sets and Accessories. | 7 - 20 |
| 6. | Schedule of Particulars of Vertically / Horizontally Mounted In Line Booster Pumps. | 7 - 25 |

1.0 VERTICAL TURBINE PUMPING SET

1.1 Pump

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|--------|--|--|-------------------|
| 1.1.1 | Make and country of origin | | |
| 1.1.2 | Type | | |
| 1.1.3 | Model | | |
| 1.1.4 | Number of stages | | |
| 1.1.5 | Speed (RPM) | | |
| 1.1.6 | Capacity at specified head (m ³ /hr) | | |
| 1.1.7 | Efficiency at duty point | | |
| 1.1.8 | Minimum submergence required | | |
| 1.1.9 | Pump casing materials : | | |
| 1.1.10 | Impeller material | | |
| 1.1.11 | Pump shaft material | | |
| 1.1.12 | Wear ring material | | |
| 1.1.13 | Column pipe material | | |
| 1.1.14 | Column shaft (Drive shaft) material | | |
| 1.1.15 | Spider bush material | | |
| 1.1.16 | Type of column pipe joint | | |
| 1.1.17 | Type of coupling | | |
| 1.1.18 | Type of thrust bearing | | |
| 1.1.19 | Silt handling capacity | | |
| 1.1.20 | Shut off head | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---------------------------------|---|--------------------------|
| 1.1.21 | Max. power absorbed by the pump | | |

1.2 Motor

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 1.2.1 | Make and Country of Origin | | |
| 1.2.2 | Model | | |
| 1.2.3 | Type | | |
| 1.2.4 | Nominal Supply voltage, frequency and number of phases | | |
| 1.2.5 | Allowable voltage fluctuations | | |
| 1.2.6 | Synchronous speed | | |
| 1.2.7 | Full load output power | | |
| 1.2.8 | Full load current | | |
| 1.2.9 | Power factor at 100% at 75% : at 50% : Of full load: | | |
| 1.2.10 | Class of insulation | | |
| 1.2.11 | Enclosure protection class (IP No.) | | |
| 1.2.12 | Motor operation rating | | |
| 1.2.13 | Motor Bearing No. a. Drive end b. Non drive end | | |
| 1.2.14 | Design life of bearings | | |
| 1.2.15 | Motor efficiency at 100% at 75% : | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| | at 50% : | | |
| 1.2.16 | Overall efficiency of pumping set at duty point | | |
| 1.2.17 | Temperature rise after 6 hrs. at 400 V. | | |

1.3 L.T. Panel and Starters :

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 1.3.1 | Make and country of origin | | |
| 1.3.2 | Make of Main MCCB Whether earth fault trip available Whether adjustable thermal trip available | | |
| 1.3.3 | Rating of Main MCCB | | |
| 1.3.4 | Make of MCBB | | |
| 1.3.5 | Rating of MCBB | | |
| 1.3.6 | Make of supply voltage monitor Whether U/V or O/V adjustable Whether supply imbalance protection available Whether phase reversal protection available | | |
| 1.3.7 | Make of surge diverters | | |
| 1.3.8 | Rated voltage of surge diverters | | |
| 1.3.9 | Type of starter | | |
| 1.3.10 | Make of starter | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 1.3.11 | AC3 rating of contactors 1. 2. 3. | | |
| 1.3.12 | Make of water level switch | | |
| 1.3.13 | Type/Operation of water level switch | | |
| 1.3.14 | Rating of Auto Transformers (if applicable) | | |

1.4 Cables

**(NWSDB requirement to be filled by the Engineer)*

| No. | Description | Make | | Size | | Type | | Material | | Length | |
|-------|--|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal |
| 1.4.1 | CEB to change over | | | | | | | | | | |
| 1.4.2 | Generator to change over (if applicable) | | | | | | | | | | |
| 1.4.3 | Change over to incoming MCCB (if applicable) | | | | | | | | | | |
| 1.4.4 | CEB to Incoming MCCB if applicable) | | | | | | | | | | |
| 1.4.5 | Incoming to LT panel | | | | | | | | | | |
| 1.4.6 | LT panel to motor starter | | | | | | | | | | |
| 1.4.7 | Motor starter to motors | | | | | | | | | | |
| 1.4.8 | Control cables in LT panel | | | | | | | | | | |

2.0 SCHEDULE OF PARTICULARS OF BORE- HOLE TYPE SUBMERSIBLE PUMPING SETS AND ACCESSORIES

2.1 Pump

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|--------|--|--|-------------------|
| 2.1.1 | Make and country of origin | | |
| 2.1.2 | Type | | |
| 2.1.3 | Model | | |
| 2.1.4 | Speed (RPM) | | |
| 2.1.5 | Capacity at specified head (m ³ /hr) | | |
| 2.1.6 | Efficiency at duty point | | |
| 2.1.7 | Number of stages | | |
| 2.1.8 | Overall efficiency | | |
| 2.1.9 | Pump casing materials | | |
| 2.1.10 | Impeller material | | |
| 2.1.11 | Pump shaft material | | |
| 2.1.12 | Casing wearing material | | |
| 2.1.13 | Max. external diameter of pump assembly | | |
| 2.1.14 | Impeller wearing material | | |
| 2.1.15 | Impeller diameter (mm) | | |
| 2.1.16 | Max. impeller diameter (mm) | | |
| 2.1.17 | Shut – off head (m) | | |
| 2.1.18 | Pump bearing nos. a) Drive end | | |
| 2.1.19 | Designed life of pump bearings | | |
| 2.1.20 | Power absorbed by the pump at duty point | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---------------------------------------|---|--------------------------|
| 2.1.21 | Max. power absorbed by the pump | | |
| 2.1.22 | Shaft Intermediate Bearing Nos. | | |
| 2.1.23 | Type of the Drive Shaft Bearings | | |
| 2.1.24 | Designed life of Drive Shaft Bearings | | |
| 2.1.25 | Critical Speed of Drive Shaft | | |

2.2 Motor

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 2.2.1 | Make and Country of Origin | | |
| 2.2.2 | Model | | |
| 2.2.3 | Type | | |
| 2.2.4 | Nominal Supply voltage, frequency and number of phases | | |
| 2.2.5 | Allowable voltage fluctuations | | |
| 2.2.6 | Synchronous speed | | |
| 2.2.7 | Full load output power | | |
| 2.2.8 | Full load current | | |
| 2.2.9 | Power factor at 100% at 75% at 50% of full load | | |
| 2.2.10 | Class of insulation | | |
| 2.2.11 | Enclosure protection class (IP No.) | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 2.2.12 | Motor operation rating | | |
| 2.2.13 | Motor Bearing No. a. Drive end b. Non drive end | | |
| 2.2.14 | Design life of bearings | | |
| 2.2.15 | Motor efficiency at 100% at 75% at 50% | | |
| 2.2.16 | Overall efficiency of pumping set at duty point | | |
| 2.2.17 | Temperature rise after 6 hrs. at 400 V. | | |

2.3 L.T. Panel and Starters

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 2.3.1 | Make and country of origin | | |
| 2.3.2 | Make of Main MCCB Whether earth fault trip available Whether adjustable thermal trip available | | |
| 2.3.3 | Rating of Main MCCB | | |
| 2.3.4 | Make of MCB's | | |
| 2.3.5 | Rating of MCB's | | |
| 2.3.6 | Make of supply voltage monitor Whether U/V or O/V adjustable Whether supply imbalance protection available Whether phase reversal protection | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| | available | | |
| 2.3.7 | Make of surge diverters | | |
| 2.3.8 | Rated voltage of surge diverters | | |
| 2.3.9 | Type of starter | | |
| 2.3.10 | Make of starter | | |
| 2.3.11 | AC3 rating of contactors 1. 2. 3. | | |
| 2.3.12 | Make of water level switch | | |
| 2.3.13 | Type/Operation of water level switch | | |
| 2.3.14 | Rating of Auto Transformers (if applicable) | | |

2.4 Water level guard

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|----------------------------|---|--------------------------|
| 2.4.1 | Make and country of origin | | |
| 2.4.2 | type | | |

2.5 Cables

***(NWSDB requirement to be filled by the Engineer)**

| No. | Description | Make | | Size | | Type | | Material | | Length | |
|-------|--|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal |
| 2.5.1 | CEB to change over | | | | | | | | | | |
| 2.5.2 | Generator to change over (if applicable) | | | | | | | | | | |
| 2.5.3 | Change over to incoming MCCB (if applicable) | | | | | | | | | | |
| 2.5.4 | CEB to Incoming MCCB (if applicable) | | | | | | | | | | |
| 2.5.5 | Incoming to LT panel | | | | | | | | | | |
| 2.5.6 | LT panel to motor starter | | | | | | | | | | |
| 2.5.7 | Motor starter to motors | | | | | | | | | | |
| 2.5.8 | Control cables in LT panel | | | | | | | | | | |

3.0 SCHEDULE OF PARTICULARS OF FOR HORIZONTAL SHAFT DRIVEN DOUBLE SUCTION CENTRIFUGAL PUMPING SETS AND ACCESSORIES

3.1 Pump

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 3.1.1 | Make and country of origin | | |
| 3.1.2 | Type | | |
| 3.1.3 | Model | | |
| 3.1.4 | Number of stages | | |
| 3.1.5 | Speed (RPM) | | |
| 3.1.6 | Capacity at specified head (m ³ /hr) | | |
| 3.1.7 | Efficiency at duty point | | |
| 3.1.8 | NPSH required at duty point(m) | | |
| 3.1.9 | Safety margin required for over and above NPSHR (m) | | |
| 3.1.10 | Pump casing materials | | |
| 3.1.11 | Impeller material | | |
| 3.1.12 | Pump shaft material | | |
| 3.1.13 | Shaft sleeve material | | |
| 3.1.14 | Casing wearing material | | |
| 3.1.15 | Impeller wearing material | | |
| 3.1.16 | Impeller diameter (mm) | | |
| 3.1.17 | Max. impeller diameter (mm) | | |
| 3.1.18 | Shut – off head (m) | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 3.1.19 | Pump bearing nos. a) Drive end | | |
| 3.1.20 | Designed life of pump bearings | | |
| 3.1.21 | Power absorbed by the pump at duty point | | |
| 3.1.22 | Max. power absorbed by the pump | | |
| 3.1.23 | Shaft Intermediate Bearing Nos. | | |
| 3.1.24 | Type of the Drive Shaft Bearings | | |
| 3.1.25 | Designed life of Drive Shaft Bearings | | |
| 3.1.26 | Critical Speed of Drive Shaft | | |

3.2 Motor

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 3.2.1 | Make and Country of Origin | | |
| 3.2.2 | Model | | |
| 3.2.3 | Type | | |
| 3.2.4 | Nominal Supply voltage, frequency and number of phases | | |
| 3.2.5 | Allowable voltage fluctuations | | |
| 3.2.6 | Synchronous speed | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 3.2.7 | Full load output power | | |
| 3.2.8 | Full load current | | |
| 3.2.9 | Power factor at 100% at 75% at 50% of full load | | |
| 3.2.10 | Class of insulation | | |
| 3.2.11 | Enclosure protection class (IP No.) : | | |
| 3.2.12 | Motor operation rating | | |
| 3.2.13 | Motor Bearing No. a. Drive end b. Non drive end | | |
| 3.2.14 | Design life of bearings | | |
| 3.2.15 | Motor efficiency at 100% at 75% at 50% | | |
| 3.2.16 | Overall efficiency of pumping set at duty point | | |
| 3.2.17 | Temperature rise after 6 hrs. at 400 V. | | |

3.3 L.T. Panel and Starters:

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 3.3.1 | Make and country of origin | | |
| 3.3.2 | Make of Main MCCB Whether earth fault trip | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| | available Whether adjustable thermal trip available | | |
| 3.3.3 | Rating of Main MCCB | | |
| 3.3.4 | Make of MCB's | | |
| 3.3.5 | Rating of MCB's | | |
| 3.3.6 | Make of supply voltage monitor Whether U/V or O/V adjustable Whether supply imbalance protection available Whether phase reversal protection available | | |
| 3.3.7 | Make of surge diverters | | |
| 3.3.8 | Rated voltage of surge diverters | | |
| 3.3.9 | Type of starter | | |
| 3.3.10 | Make of starter | | |
| 3.3.11 | AC3 rating of contactors 1. 2. 3. | | |
| 3.3.12 | Make of water level switch | | |
| 3.3.13 | Type/Operation of water level switch | | |
| 3.3.14 | Rating of Auto Transformers (if applicable) | | |

3.4 Cables

*(NWSDB requirement to be filled by the Engineer)

| No. | Description | Make | | Size | | Type | | Material | | Length | |
|-------|--|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal |
| 3.4.1 | CEB to change over | | | | | | | | | | |
| 3.4.2 | Generator to change over (if applicable) | | | | | | | | | | |
| 3.4.3 | Change over to incoming MCCB (if applicable) | | | | | | | | | | |
| 3.4.4 | CEB to Incoming MCCB (if applicable) | | | | | | | | | | |
| 3.4.5 | Incoming to LT panel | | | | | | | | | | |
| 3.4.6 | LT panel to motor starter | | | | | | | | | | |
| 3.4.7 | Motor starter to motors | | | | | | | | | | |
| 3.4.8 | Control cables in LT panel | | | | | | | | | | |

4.0 SCHEDULE OF PARTICULARS OF END SUCTION VERTICAL DELIVERY BACK PULL – OUT CENTRIFUGAL PUMPING SETS AND ACCESSORIES

4.1 Pump

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 4.1.1 | Make and country of origin | | |
| 4.1.2 | Type | | |
| 4.1.3 | Model | | |
| 4.1.4 | Number of stages | | |
| 4.1.5 | Speed (RPM) | | |
| 4.1.6 | Capacity at specified head (m ³ /hr) | | |
| 4.1.7 | Efficiency at duty point | | |
| 4.1.8 | NPSH required at duty point(m) | | |
| 4.1.9 | Safety margin required for over and above NPSHR (m) | | |
| 4.1.10 | Pump casing materials | | |
| 4.1.11 | Impeller material | | |
| 4.1.12 | Pump shaft material | | |
| 4.1.13 | Shaft sleeve material | | |
| 4.1.14 | Casing wearing material | | |
| 4.1.15 | Impeller wearing material | | |
| 4.1.16 | Impeller diameter (mm) | | |
| 4.1.17 | Max. impeller diameter (mm) | | |
| 4.1.18 | Shut – off head (m) | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 4.1.19 | Pump bearing nos. a. Drive end | | |
| 4.1.20 | Designed life of pump bearings | | |
| 4.1.21 | Power absorbed by the pump at duty point | | |
| 4.1.22 | Max. power absorbed by the pump | | |
| 4.1.23 | Shaft Intermediate Bearing Nos. | | |
| 4.1.24 | Type of the Drive Shaft Bearings | | |
| 4.1.25 | Designed life of Drive Shaft Bearings | | |
| 4.1.26 | Critical Speed of Drive Shaft | | |

4.2 Motor

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 4.2.1 | Make and Country of Origin | | |
| 4.2.2 | Model | | |
| 4.2.3 | Type | | |
| 4.2.4 | Nominal Supply voltage, frequency and number of phases | | |
| 4.2.5 | Allowable voltage fluctuations | | |
| 4.2.6 | Synchronous speed | | |
| 4.2.7 | Full load output power | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 4.2.8 | Full load current | | |
| 4.2.9 | Power factor at 100% at 50% at 75% of full load | | |
| 4.2.10 | Class of insulation | | |
| 4.2.11 | Enclosure protection class (IP No.) | | |
| 4.2.12 | Motor operation rating | | |
| 4.2.13 | Motor Bearing No. a. Drive end b. Non drive end | | |
| 4.2.14 | Design life of bearings | | |
| 4.2.15 | Motor efficiency at 100% at 50% at 75% | | |
| 4.2.16 | Overall efficiency of pumping set at duty point | | |
| 4.2.17 | Temperature rise after 6 hrs. at 400 V. | | |

7.3 L.T. Panel and Starters:

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 4.3.1 | Make and country of origin | | |
| 4.3.2 | Make of Main MCCB Whether earth fault trip available | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| | Whether adjustable thermal trip available | | |
| 4.3.3 | Rating of Main MCCB | | |
| 4.3.4 | Make of MCB's | | |
| 4.3.5 | Rating of MCB's | | |
| 4.3.6 | Make of supply voltage monitor Whether U/V or O/V adjustable Whether supply imbalance protection available Whether phase reversal protection available | | |
| 4.3.7 | Make of surge diverters | | |
| 4.3.8 | Rated voltage of surge diverters | | |
| 4.3.9 | Type of starter | | |
| 4.3.10 | Make of starter | | |
| 4.3.11 | AC3 rating of contactors 1. 2. 3. | | |
| 4.3.12 | Make of water level switch | | |
| 4.3.13 | Type/Operation of water level switch | | |
| 4.3.14 | Rating of Auto Transformers (if applicable) | | |

4.4 Cables

*(NWSDB requirement to be filled by the Engineer)

| No. | Description | Make | | Size | | Type | | Material | | Length | |
|-------|--|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal |
| 4.4.1 | CEB to change over | | | | | | | | | | |
| 4.4.2 | Generator to change over (if applicable) | | | | | | | | | | |
| 4.4.3 | Change over to incoming MCCB (if applicable) | | | | | | | | | | |
| 4.4.4 | CEB to Incoming MCCB (if applicable) | | | | | | | | | | |
| 4.4.5 | Incoming to LT panel | | | | | | | | | | |
| 4.4.6 | LT panel to motor starter | | | | | | | | | | |
| 4.4.7 | Motor starter to motors | | | | | | | | | | |
| 4.4.8 | Control cables in LT panel | | | | | | | | | | |

5.0 SCHEDULE OF PARTICULARS OF VERTICAL SHAFT DRIVEN DOUBLE SUCTION CENTRIFUGAL PUMPS SETS AND ACCESSORIES

5.1 Pump and Drive Shafts

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|--------|--|--|-------------------|
| 5.1.1 | Make and Country of Origin | | |
| 5.1.2 | Type | | |
| 5.1.3 | Model | | |
| 5.1.4 | Number of stages | | |
| 5.1.5 | Speed (RPM) | | |
| 5.1.6 | Capacity at specified head (m ³ /hr) | | |
| 5.1.7 | Efficiency at duty point (%) | | |
| 5.1.8 | NPSH required at duty point (m) | | |
| 5.1.9 | Safety margin required for over and above NPSHR (m) | | |
| 5.1.10 | Pump casing material | | |
| 5.1.11 | Impeller material | | |
| 5.1.12 | Pump shaft material | | |
| 5.1.13 | Shaft sleeve material | | |
| 5.1.14 | Casing wearing material | | |
| 5.1.15 | Impeller wearing material | | |
| 5.1.16 | Impeller diameter (mm) | | |
| 5.1.17 | Max. Impeller diameter (mm) | | |
| 5.1.18 | Shut-off head (m) | | |
| 5.1.19 | Pump Bearing Nos. a. Drive end b. Non drive end | | |
| 5.1.20 | Designed life of pump bearings. | | |
| 5.1.21 | Power absorbed by the pump at duty point | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 5.1.22 | Max. Power absorbed by the pump | | |
| 5.1.23 | Make and country of origin of drive shaft | | |
| 5.1.24 | Length of each drive shaft | | |
| 5.1.25 | Drive shaft intermediate bearing Nos. | | |
| 5.1.26 | Type of the drive shaft bearings | | |
| 5.1.27 | Designed life of drive shaft bearings | | |
| 5.1.28 | Critical speed of drive shaft | | |
| 5.1.29 | Length of drive shafts | | |
| 5.1.30 | Total Number of drive shafts | | |

5.2 Motor:-

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 5.2.1 | Make and country of origin: | | |
| 5.2.2 | Model: | | |
| 5.2.3 | Type: | | |
| 5.2.4 | Nominal supply voltage frequency and number of phase | | |
| 5.2.5 | Allowable voltage fluctuation | | |
| 5.2.6 | Synchronous speed | | |
| 5.2.7 | Full load out put power | | |
| 5.2.8 | Full load current | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 5.2.9 | Power factor at 100% at 75% at 50% full load | | |
| 5.2.10 | Class of insulation | | |
| 5.2.11 | Enclosure protection class (IP No) | | |
| 5.2.12 | Motor operation rating | | |
| 5.2.13 | Motor bearing No: a. Drive end b. Non drive end | | |
| 5.2.14 | Designed life of bearings | | |
| 5.2.15 | Motor efficiency at 100% | | |
| 5.2.16 | Overall efficiency of pumping set at duty point | | |
| 5.2.17 | Temperature rise after 6 Hrs. at 400V | | |

5.3 L.T Panel and Starters:-

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 5.3.1 | Make and Country of Origin | | |
| 5.3.2 | Make of main MCCB | | |
| 5.3.3 | Indicate a) Whether earth fault trip is available:- b) Whether adjustable thermal trip is available:- | | |
| 5.3.4 | Rating of Main MCCB | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 5.3.5 | Rating of starter MCCB | | |
| 5.3.6 | Make of MCB's | | |
| 5.3.7 | Rating's of MCBs | | |
| 5.3.8 | Make of supply voltage monitor | | |
| 5.3.9 | Indicate whether U/V or O/V and adjustable | | |
| 5.3.10 | Indicate whether supply Imbalance protection is available | | |
| 5.3.11 | Indicate whether phase reversal protection is available | | |
| 5.3.12 | Make of surge diverters | | |
| 5.3.13 | Rated Voltage of surge diverters | | |
| 5.3.14 | Type of starter | | |
| 5.3.15 | Make of starter | | |
| 5.3.16 | AC-3 Rating of Contactors 1. 2. 3. | | |
| 5.3.17 | Make of water level switch | | |
| 5.3.18 | Type/Operation of water level switch | | |
| 5.3.19 | Rating of Auto transformers (if applicable) | | |
| 5.3.20 | Indicate whether thermal sensors provided in the auto transformer | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 5.3.21 | Indicate whether all control wires in the starter and LT panel are lugged and connected | | |
| 5.3.22 | Indicate whether all control wires are lugged and connected | | |
| 5.3.23 | Indicate whether power factor correction capacitors are mounted | | |

5.4 Cables

*(NWSDB requirement to be filled by the Engineer)

| No. | Description | Make | | Size | | Type | | Material | | Length | |
|-------|--|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal |
| 5.4.1 | CEB to change over | | | | | | | | | | |
| 5.4.2 | Generator to change over (if applicable) | | | | | | | | | | |
| 5.4.3 | Change over to incoming MCCB (if applicable) | | | | | | | | | | |
| 5.4.4 | CEB to Incoming MCCB (if applicable) | | | | | | | | | | |
| 5.4.5 | Incoming to LT panel | | | | | | | | | | |
| 5.4.6 | LT panel to motor starter | | | | | | | | | | |
| 5.4.7 | Motor starter to motors | | | | | | | | | | |
| 5.4.8 | Control cables in LT panel | | | | | | | | | | |

6.0 SCHEDULE OF PARTICULARS OF VERTICALLY/HORIZONTALLY MOUNTED IN LINE BOOSTER PUMPS

6.1 Pump

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|--------|---|--|-------------------|
| 6.1.1 | Make and country of origin | | |
| 6.1.2 | Type | | |
| 6.1.3 | Model | | |
| 6.1.4 | Number of stages | | |
| 6.1.5 | Speed (RPM) | | |
| 6.1.6 | Capacity at specified head (m ³ /hr) | | |
| 6.1.7 | Efficiency at duty point | | |
| 6.1.8 | NPSH required at duty point(m) | | |
| 6.1.9 | Safety margin required for over and above NPSHR (m) | | |
| 6.1.10 | Pump casing materials | | |
| 6.1.11 | Impeller material | | |
| 6.1.12 | Pump shaft material | | |
| 6.1.13 | Shaft sleeve material | | |
| 6.1.14 | Casing wearing material | | |
| 6.1.15 | Impeller wearing material | | |
| 6.1.16 | Impeller diameter (mm) | | |
| 6.1.17 | Max. impeller diameter (mm) | | |
| 6.1.18 | Shut – off head (m) | | |
| 6.1.19 | Pump bearing nos. a. Drive end | | |
| 6.1.20 | Designed life of pump bearings | | |
| 6.1.21 | Power absorbed by the pump at duty point : | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 6.1.22 | Max. power absorbed by the pump: | | |
| 6.1.23 | Shaft Intermediate Bearing Nos. : | | |
| 6.1.24 | Type of the Drive Shaft Bearings : | | |
| 6.1.25 | Designed life of Drive Shaft Bearings : | | |
| 6.1.26 | Critical Speed of Drive Shaft : | | |

6.2 Motor

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 6.2.1 | Make and Country of Origin | | |
| 6.2.2 | Model | | |
| 6.2.3 | Type | | |
| 6.2.4 | Nominal Supply voltage, frequency and number of phases | | |
| 6.2.5 | Allowable voltage fluctuations | | |
| 6.2.6 | Synchronous speed | | |
| 6.2.7 | Full load output power | | |
| 6.2.8 | Full load current | | |
| 6.2.9 | Power factor at 100% at 75% at 50% of full load | | |
| 6.2.10 | Class of insulation | | |
| 6.2.11 | Enclosure protection class (IP No.) | | |
| 6.2.12 | Motor operation rating | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 6.2.13 | Motor Bearing No. | | |
| 6.2.14 | Design life of bearings | | |
| 6.2.15 | Motor efficiency at 100% at 75% at 50% | | |
| 6.2.16 | Overall efficiency of pumping set at duty point | | |
| 6.2.17 | Temperature rise after 6 hrs. at 400 V. | | |

6.3 L.T. Panel and Starters:

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|---|---|--------------------------|
| 6.3.1 | Make and country of origin | | |
| 6.3.2 | Make of Main MCCB Whether earth fault trip available Whether adjustable thermal trip available | | |
| 6.3.3 | Rating of Main MCCB | | |
| 6.3.4 | Make of MCB's | | |
| 6.3.5 | Rating of MCB's | | |
| 6.3.6 | Make of supply voltage monitor Whether U/V or O/V adjustable Whether supply imbalance protection available Whether phase reversal protection available | | |
| 6.3.7 | Make of surge diverters | | |

| No. | Description | NWSDB requirement <i>(to be filled by the Engineer)</i> | Bidder's Proposal |
|------------|--|---|--------------------------|
| 6.3.8 | Rated voltage of surge diverters | | |
| 6.3.9 | Type of starter | | |
| 6.3.10 | Make of starter | | |
| 6.3.11 | AC3 rating of contactors 1. 2. 3. | | |
| 6.3.12 | Make of water level switch | | |
| 6.3.13 | Type/Operation of water level switch | | |
| 6.3.14 | Rating of Auto Transformers (if applicable) | | |

6.4 Cables

**(NWSDB requirement to be filled by the Engineer)*

| No. | Description | Make | | Size | | Type | | Material | | Length | |
|-------|--|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| | | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal | NWSDB Requirement * | Bidder's Proposal |
| 6.4.1 | CEB to change over | | | | | | | | | | |
| 6.4.2 | Generator to change over (if applicable) | | | | | | | | | | |
| 6.4.3 | Change over to incoming MCCB (if applicable) | | | | | | | | | | |
| 6.4.4 | CEB to Incoming MCCB (if applicable) | | | | | | | | | | |
| 6.4.5 | Incoming to LT panel | | | | | | | | | | |
| 6.4.6 | LT panel to motor starter | | | | | | | | | | |
| 6.4.7 | Motor starter to motors | | | | | | | | | | |
| 6.4.8 | Control cables in LT panel | | | | | | | | | | |

8. DEVIATION FROM SPECIFICATION

DEVIATIONS FROM SPECIFICATIONS

Preamble

The Bidder is required to list any deviations of materials workmanship etc. from the Specifications including such information as has already been given elsewhere in the Bidding Documents. The information shall be in sufficient detail to enable the Engineer to make a realistic assessment of the effect of such deviations on the performance or life of the materials to be supplied and also such deviation if any shall be subject to **Clause 35** of Instructions to Bidders.

The list shall also include deviations from the Specifications relating to the mode of operation and/or control of any item of equipment, and any deviations from the specified design requirements for plant components.

Deviations

Bidder shall mention any deviation in Bidder's proposal with respect to the NWSDB requirement. (Scope of the work, Condition of Contract, Specification, Schedule of Particulars etc.....)

Note:

Additional sheets should be attached as necessary

9. LIST OF DRAWINGS

LIST OF DRAWINGS

| Drg. No. | Description |
|-----------------|--------------------|
| | |

10. BILL OF QUANTITIES

PREAMBLE NOTES ON PRICING

1. Documents to be read in conjunction with the Bill of Quantities

1.1 Attention is directed to the Form of Bid, Notice to Bidders, Instructions to Bidders, Conditions of Contract, Bidding data, Contract data, Specifications and Appendices, which are to be read in conjunction with the Bill of Quantities.

2. Description of Items

2.1 General obligations and general descriptions of work and material given in the Conditions of Contract and the Specifications are not necessarily repeated in the Bill of Quantities.

2.2 Descriptions attached to the items in the Bills of Quantities are only sufficient detail to ensure identification of the work described in the Specification.

2.3 Reference is to be made to the Conditions of Contract, Specifications and the Appendices for detailed information.

3. Contracts to be priced completely

3.1 The Bidders may price one or more of the Bills in the Bill of Quantities. Each priced bill must be complete by itself and the final summary, covering all bills, must be completed.

4. Rates and Prices to be fully inclusive

4.1 In pricing the items of the Bills, the Bidder shall cover himself and will be deemed to have covered himself for: -

- a) All services and materials which according to the true intent and meaning of the contract may be reasonably inferred as necessary for completion of delivery/installation of the materials and equipment in sound condition to the site as indicated in the schedule of requirements.
- b) All obligations, liabilities and responsibilities that the Contract Documents place upon the Bidders in connection with or in relation to the Contract.

4.2 The Bidder shall include in his Bid prices, unless itemized separately for: -

- (a) All costs arising out of inspection and testing at the place of manufacturing
- (b) All costs of packing as specified or as required for export overseas and storage.
- (c) All costs and insurances of delivering the materials to the site/stores as indicated in the Schedule of Requirements.
- (d) All costs incurred in the installation of pumps/control panels and all necessary accessories according to the drawings and specifications.

5. Bids with unit prices which are so unbalanced as to be detrimental to the Employer's interests may be rejected or cause rejection, at the discretion of the Employer.
6. Unit rates accepted by the Employer shall be held good and effective until the work is completed and accepted by the Employer.
7. A rate and/or price is to be entered against each item in the Bill of Quantities whether quantities are stated or not. The cost of any item against which a rate has not been entered shall be deemed to be covered by other rates in the corresponding bill.
8. All bends, tees & reducers shall be from a single source of manufacturing. Fittings from different sources of manufacturing shall not be accepted. ISO 9001:2015 for quality assurance issued by an accredited body should be forwarded along with the Bid for all items offered.
9. Cost of Inspection and Testing by the Independent Inspection and Testing Agency shall be as per the **Clause 25.6** of the General Conditions of Contract.

**SUPPLY & INSTALLATION OF
PUMPING SETS, MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME**

CONTRACT No.

BILL OF QUANTITIES

BILL No 01: General Bill

| Item | Description | Qty. | Unit | Rate Local (LKR) | Amount Local (LKR) |
|-------------|--|-------------|-------------|---------------------------------|-----------------------------------|
| 1. | Provision for insurances during Installation period for the items in this bill. (Contractor's percentage adjustment for insurance - 2% on the relevant amount.) | | p. sum | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| | Total of Page No. carried to Summary in Page No..... | | | | |

**SUPPLY & INSTALLATION OF PUMPING SETS,
MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME
CONTRACT No.**

SUMMARY OF BILL NO. 01

| Page Number | Amount |
|---|--------|
| | LKR |
| Page No. | |
| Page No. | |
| Total of Page No..... Carried to Summary of Bills in Page No. | |

**SUPPLY & INSTALLATION OF PUMPING SETS,
MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME
CONTRACT No.**

BILL OF QUANTITIES

BILL No 02: Supply Bill

| Item | Description | Qty. | Unit | Rate (LKR) | Amount (LKR) |
|------|--|------|------|---------------|-----------------|
| 1 | Supply of wet well auto coupling type electrically submersible sewage pumping sets as specified in the specification of capacity against a total head of with duck foot bend, SS guide rails as shown in the drawing & long Stainless Steel lifting chain as per the specifications. The each pump shall provide minimum of long submersible power cables up to the panel board. (All SS material to be SS316) | 03 | Nos. | | |
| 2 | Supply of Identical Pump above withm long Stainless Steel lifting chain and minimum ofm long submersible power cable as per the specifications. (The pump to be kept at the stores as a spare) | 01 | No | | |
| 3 | Supply of DI pipes & fittings and specials as per the drawingincluding, Non return Valves (PN...,DN...), Sluice valves (PN..., DN...), Flange Adaptors , Couplings, with required all necessary accessories(pressure gauges, etc,)to full fill the requirement as per the drawing. (Rate to include all necessary pipes supporting arrangement as per drawing.) | - | Item | | |
| 4 | Supply of floor/wall mounted type electrical panel complete with all necessary accessories, switchgears, cables, earth system, Junction box (IP68) etc, and level monitoring equipments as float sensors/ultrasonic level sensors and their cables for the above pumps as per the specification | - | Item | | |
| 5 | Supply of spares, as specified in specifications for satisfactory operation of the pumps. (Bidder shall submit an itemized and priced list of spares). | - | Item | | |
| 6 | Supply of four complete sets of pump catalogues, manuals, spare parts manuals etc. as specified in specification | - | Item | | |
| 7 | | | | | |
| | | | | | |
| | | | | | |
| | Total of Page No.....carried to Summary in Page No..... | | | | |

(This is a sample format for BOQ and may be changed as per the relevant work)

**SUPPLY & INSTALLATION OF PUMPING SETS,
MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME**

CONTRACT No.

SUMMARY OF BILL NO. 02

| Page Number | Unit | Amount |
|--|------|--------|
| | | (LKR) |
| Page No. | - | |
| Page No. | - | |
| Cost of Inspection and Testing by Independent Testing & Inspection Agency as per Clause No. 25 of GCC | Sum | |
| Total of Page No..... Carried to Summary of Bills in Page No. | - | |

Name of the Inspection Agency:

.....
.....

**SUPPLY & INSTALLATION OF PUMPING SETS,
MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME**

CONTRACT No.

BILL OF QUANTITIES

BILL No 03: Installation Bill

| Item | Description | Qty. | Unit | Rate (LKR) | Amount (LKR) |
|-------------|---|-------------|-------------|-----------------------|-------------------------|
| 1 | Installations of pumps, pipe & fittings and accessories supplied under above Item No. 2 & 4 including all necessary supporting arrangements as per drawings. (Rate to include for construction of suitable concrete foundations, metal and welding, breaking and making good of walls and floor] | 03 | Nos. | | |
| 2 | Installation of the panel and level monitoring equipments supplied under above Item 06 and with all accessories, laying & fixing cables etc. Including construction of panel supporting structures using Grade 20concrete. | 01 | No | | |
| 3 | Testing and commissioning of all above equipment to the satisfaction of Engineer. | - | Item | | |
| | | | | | |
| | | | | | |
| | Total of Page No.carried to Summary in Page No..... | | | | |

**SUPPLY & INSTALLATION OF PUMPING SETS,
MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME**

CONTRACT No.

SUMMARY OF BILL NO. 03

| Page Number | Amount |
|---|---------------|
| | (LKR) |
| Page No. | |
| Page No. | |
| | |
| Total of Page No..... Carried to Summary of Bills in Page No. | |

**SUPPLY & INSTALLATION OF PUMPING SETS,
MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME**

CONTRACT No.

SUMMARY OF BILLS

| Bill No. | Description | Amount (LKR) |
|-----------------|--|---------------------|
| 01 | General Bill | |
| 02 | Supply Bill | |
| 03 | Installation Bill | |
| A | Sub Total (1) | |
| B | Less: Provisional Sums | |
| C | Sub Total (2) (A-B) | |
| D | Less: Discount (if any)..... | |
| E | Sub Total (3) (C-D) | |
| F | Add : Provisional Sums | |
| G | Sub Total 4 (E+F) | |
| H | Add: Contingencies 10% (for Sub Total 4) | |
| I | Grand Total (G+H) carried to Form of Bid in page 3-1(excluding VAT) | |
| J | VAT (.....%) | |

VAT (applicable rate%) Rs. (LKR)

VAT Registration Number:.....

(A copy of the VAT Registration Certificate shall be annexed.)

Note: - The NWSDB VAT Registration No: - 4090 31820 7000

11. SPECIMEN FORMS

- **BID SECURITY**
- **CONTRACT AGREEMENT**
- **PERFORMANCE GUARANTEE**
- **ADVANCE PAYMENT SECURITY**
- **LETTER OF ACCEPTANCE**
- **RETENTION MONEY GURANTEE**

FORM OF BID SECURITY (Unconditional)

..... [issuing agency’s name, and address of issuing branch or office]
.....
.....

Beneficiary : Chairman
National Water Supply and Drainage Board
Galle Road, Ratmalana

Date..... BID GUARANTEE No :

We have been informed that [name of the Bidder] (hereinafter called “the Bidder”) has submitted to you its bid dated [insert date] (hereinafter called “the Bid”) for the execution / supply of [name of contract] under Contract No.....

Furthermore, we understand that, according to your conditions, Bids must be supported by a Bid Guarantee.

At the request of the Bidder, we [name of issuing agency] hereby irrevocably under take to pay you any sum or sums not exceeding in total an amount of [amount in figures] [amount in words] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation (s) under the bid conditions, because of the Bidder:

- (a). has withdrawn its Bid during the period of bid validity specified ; or
- (b). does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter “the ITB”) or
- (c). having been notified of the acceptance of its Bid by the Employer/ Purchaser during the period of Bid validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the Performance Security, in accordance with the ITB.

This Guarantee shall expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the Contract signed by the Bidder and of the Performance Security issued to you by the Bidder, or (b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder that the Bidder was unsuccessful, otherwise it will remain in force up to [insert date].

Consequently, any demand of payment under this Guarantee must be received by us the office on or before that date.....

.....
[Signature (s) of authorized representative (s)]

**THE GOVERNMENT OF THE DEMOCRATIC SOCIALIST REPUBLIC OF
SRI LANKA**

MINISTRY OF

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

**SUPPLY & INSTALLATION OF PUMPING SETS,
MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES FOR
..... WATER SUPPLY SCHEME**

CONTRACT No.:

CONTRACT AGREEMENT

Contract Agreement made and entered into between the National Water Supply and Drainage Board, a corporate body duly established under the provisions of the National Water Supply and Drainage Board Law No. 2 of 1974 and having its Head Office at Ratmalana in Sri Lanka (hereinafter sometimes referred to as "the Board") of the one part and Messrs :
..... which duly incorporated under the laws of Democratic Socialist Republic of Sri Lanka and having registered Its office at.....
.....(hereinafter called "the Contractor" which term of expression shall where the context so requires or admits mean and include its successors and permitted assigns) of the other part.

WHEREAS the Board is desirous of entering into a contract with the Contractor for the supply and installation of.....
..... to
at locations as specified in the Delivery Schedule and has accepted a Bid by the Contractor for the execution and completion of such works.

AND WHEREAS the Bills of Quantities or Schedule of Rates and Specifications and General Conditions of Contract describing the Works to be done have been prepared by the Board and the same have been signed by the parties hereto.

NOW it is hereby agreed as follows:

1. For the consideration hereinafter mentioned the Contractor shall, upon and subject to the conditions hereto annexed, complete the Works referred to in the said Bills of Quantities or Schedule of Rates and in the said Specifications and Conditions of Contract to the entire satisfaction of the Board on or before the

.....
subject to extras, omissions and variations to be determined by the Engineer as hereinafter provided.

2. The said General Conditions of Contract, the said Specifications, the said Bills of Quantities or Schedule of Rates, (a detailed list whereof is annexed hereto,) Instructions to Bidders, Contract Data, Bidding Data and Schedule of Particulars and Form of Bid, all duly signed by the Board and the Contractor shall for all purposes whatsoever be read, regarded and construed as part and parcel of the Agreement.

3. The Contractor will be paid for the said execution of the Works the sum of (Rs.....) hereinafter sometimes referred to as the "Contract Price" or such as shall become payable hereunder according to the terms of the Contract.

4. As security for the due and proper performance and fulfillment of this contract and for the due payment of all claims to which the Board may be entitled hereunder, the Contractor hereby undertakes to maintain to the Board with a Guarantee in favor of the Board from a Bank approved by the Engineer, as surety.....(Rs.....) which said Performance Guarantee shall remain in force and shall not be discharged until the Engineer shall have granted a Final Acceptance Certificate to the effect that the Contractor has duly discharged and completed all his obligations under this contract and that there is no sum whatever due to the Board at the date of such Final Acceptance Certificate under this Contract.

5. The following terms used in this Agreement and or in the Specifications shall be understood as having the meanings hereby ascribed to them, namely;

- (a) "The Procurement Committee" shall mean the Procurement Committee appointed for the purpose of determining the Tender.
- (b) "The Contractor" or "The Supplier" shall mean the person or persons, firm or firms, company or companies who have contracted for the supply and delivery of the materials, equipment and installation herein specified and includes its successors and permitted assigns.
- (c) "The Chairman" shall mean the officer for the time being holding the office of or acting as the Chairman, National Water Supply and Drainage Board.
- (d) "The Engineer" shall mean the Officer for the time being holding the Office of or acting to the General Manager, National Water Supply and Drainage Board.
- (e) "The Engineer's Representative" shall mean the authorized Representative of the Engineer immediately responsible for the supervision of the Works or any other person appointed from time to time by the Engineer to act as Engineer and notified in writing to the Contractor.

- (f) "The Government" shall mean the Government of the Democratic Socialist Republic of Sri Lanka.
- (g) "The Purchaser" or "The Board" shall mean the National Water Supply and Drainage Board.
- (h) "Months" shall mean calendar months.
- (i) "The Contract Documents" shall mean the Instructions to Bidders, Contract Data, Bidding Data, Schedule of Particulars, the General Conditions of Contract, the Form of Bid, the Specifications, Bill of Quantities, Addenda, Articles of Agreement and their annexure.
- (j) "The Contract Price" shall mean the sum stated in the Letter of Acceptance payable to the Contractor for the supply of Goods and Services in accordance with the provisions of the Contract.
- (k) "The Works" shall mean the supply, delivery and Installation of Goods and the Services.
- (l) "Variation" shall mean any alteration of the description of any item in the Bill of Quantities or of the Specifications which in the opinion of the Engineer, is required for the perfect completion of the Works outlined in the Agreement.
- (m) "RS or SL Rs." shall mean Sri Lanka Rupees.

IN WITNESS WHEREOF the parties hereto have set their hands and seal to these presents at the places and dates hereinafter mentioned.

Signed by the said Chairman, National Water Supply and Drainage Board and Board Member of the National Water Supply and Drainage Board at on the day of Two Thousand and in the presence of the following Witnesses.

Chairman Board Member

NATIONAL WATER SUPPLY AND DRAINAGE BOARD

WITNESSES

Signature 1: Signature 2 :

Name : Name :

Address : Address :

Signed by the said in the capacity of at..... on the day of..... Two Thousand and in the presence of the following Witnesses.

.....
Signature of Contractor

WITNESSES

Signature 1: Signature 2 :

Name : Name :

Address Address

Capacity Capacity

FORM OF PERFORMANCE SECURITY (Unconditional)

.....[*Issuing Agency’s Name and Address of issuing Branch or Office*]
.....
.....

Beneficiary : Chairman
National Water Supply and Drainage Board
Galle Road, Ratmalana

Date

PERFORMANCE GUARANTEE No.:

We have been informed that [name of Contractor/Supplier] (*hereinafter called “the Contractor”*) has entered into Contract No. dated with you, for the Supply & installation of [name of contract and brief description of Works] (*hereinafter called “the Contract”*).

Furthermore, we understand that according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we [name of Agency] hereby irrevocably under take to pay you any sum or sums not exceeding in total and amount of [in figures] [in words] , such sum being payable in the types and proportions of currencies in which the Contract Price is payable , upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation (s) under the Contract, without your needing to prove or to show grounds for your demand or the sums specified therein.

This shall expire, no later than the day of , 20 [28 Days beyond the Defects Liability Period] and any demand for payments under it must be received by us at this office on or before that date.

.....
[Signature (s)]

Signature and seal of the guarantor

Witness

Name :

Signature :

FORM OF ADVANCE PAYMENT SECURITY

.....[*Issuing Agency’s Name and Address of issuing Branch or Office*]
.....
.....

Beneficiary : Chairman
National Water Supply and Drainage Board
Galle Road, Ratmalana

Date

ADVANCE PAYMENT GUARANTEE No.

We have been informed that [name of Contractor/Supplier] (hereinafter called “the Contractor”) has entered in to Contract No. dated with you, for the Supply & Installation of[name of Contract and brief description] (hereinafter called “the Contract”).

Furthermore, we understand that according to the conditions of Contract an advance payment in the sum [amount in figures] (.....) [amount in words] is to be made against an advance payment guarantee

At the request of the Contractor, we [issuing agency] hereby irrevocably undertake to pay you any sum or sums not exceeding in total and amount of [amount in figures] (.....)[amount in words] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor.

This guarantee shall expire on [28 Days beyond the Completion Date]

Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

.....
[Signature (s)]

Signature and seal of the guarantor

Witness :

Name :

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

.....-20.....

Regd. Post

Ms.
.....
.....

Dear Sirs,

**SUPPLY & INSTALLATION OF
PUMPING SETS, MOTOR CONTROL CENTRE (MCC) AND ACCESSORIES
..... WATER SUPPLY SCHEME**

CONTRACT NO:

Letter of Acceptance

We are pleased to inform you that your offer submitted on on the above tender, amounting to Sri Lanka Rupees (LKR /=) has been accepted.

- Applicable VAT will be payable on production of Tax Invoices. The Registered No. for NWSDB for VAT is 4090318207000.
- Pumps & Accessories should be from

Inspection and Testing of goods should be carried as per **Clause 25** of General Conditions of Contract with respect to quantity, quality and loading prior to shipment and certificates should be forwarded to Deputy General manager (.....)

All Pumps & Accessories under this contract shall be delivered at such places, in such quantities as specified in the Delivery Schedule and Contract Period is months from the date hereof.

The liquidated damages for any delay beyond the above period shall be LKR/= per Day not exceeding 10% of the total Contract Price.

An advance payment of 20% of the Contract Price could be obtained after signing the agreement on production of an advance payment guarantee in the prescribed format from a recognized bank. Operating in Sri Lanka approved by the Central Bank of Sri Lanka.

Performance Bond in the prescribed format (a copy annexed) from a recognized bank operating in Sri Lanka approved by the Central Bank of Sri Lanka for an amount of 10% of the total Contract Price valid for a period of 28 Days beyond the Defects Liability Period from the date hereof shall be submitted within 14 Days from the date hereof. Performance security shall be denominated in the currency of contract and proportionate to each currency.

Please acknowledge receipt of this letter by a return fax and make arrangements to sign the Agreement by prior appointment with the Asst. General Manager (Tenders & Contracts Section) within 28 Days.

Engineer's Representative of this contract is

Please contact Deputy General Manager (.....) on Tele No. for further action on this contract.

Yours faithfully,
National Water Supply & Drainage Board

General Manager

- Cc:** 1. Secretary, Ministry of
2. Auditor General – Duplicate offer and a copy of the Tender Board decision attached.
3. Addl. General Manager (.....)
4. Deputy General Manager (.....)
5. Deputy General Manager (Finance)
6. Deputy General Manager (IA)
7. Asst. General Manager (.....)
8. Chief Engineer (.....)
9. Stores Copy

FORM OF RETENTION MONEY GUARANTEE

.....
[Issuing Agency’s Name, and Address of Issuing Branch or Office]

Beneficiary :
.....
.....[Name and Address of Employer :insert relevant Address]

Date :

RETENTION MONEY GUARANTEE No.:

We have been informed that
[name of Contractor/supplier] (Hereinafter called “the Contractor”) has entered into Contract
No..... [Reference number of the contract]
dated with you, for the execution of
..... [Name of contract and brief
description of Works] (Hereinafter called “the Contract”).

Furthermore, we understand that, according to the Government procurement Guideline and the decision
taken by the Board of Directors of the National Water Supply & Drainage Board to release retention
money when it reaches 5% of Contract Price, the Employer would release to the
sum..... [amount in figures] (.....
.....)[amount in words] is to be made against and
unconditional on demand guarantee acceptable to the Employer

At the request of the Contractor, we
[name of agency] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an
amount of[amount in figures]
(.....)[amount in words] upon
receipt by us of your first demand in writing accompanied by a written statement stating that the
Contractor is in breach of its obligation under the Contract .

This guarantee shall expire, on[28 Days beyond the Defects
Notification Period/ Defects Liability Period].

Consequently, any demand for payment under this guarantee must be received by us at this office on or
before that date.

.....
[Signature(s)]
Signature and seal of the guarantor

Witness
Name :
Signature.....

12. APPENDICES

APPENDIX 1A- DETAILS OF SIMILAR SUPPLIES COMPLETED WITHIN THE LAST FIVE YEARS AND ONGOING

| Name and Address of Employer | Name and details of Contract | Value of Contract | Period of Contract Date | | Remarks (Completed/ ongoing etc) | Value of work remaining incomplete |
|------------------------------|------------------------------|-------------------|-------------------------|----|----------------------------------|------------------------------------|
| | | | From | To | | |
| | | | | | | |

APPENDIX 1B -DETAILS OF SIMILAR INSTALLATION COMPLETED WITHIN THE LAST FIVE YEARS AND ONGOING

| Name and Address of Employer | Name and details of Contract | Value of Contract | Period of Contract Date | | Remarks (Completed/ ongoing etc) | Value of work remaining incomplete |
|------------------------------|------------------------------|-------------------|-------------------------|----|----------------------------------|------------------------------------|
| | | | From | To | | |
| | | | | | | |

APPENDIX 2 - SCHEDULE OF TECHNICAL PERSONS & FACILITIES

1. Details of Workshops

| Location | Minimum Facilities Required | Available facilities | Remarks |
|----------|--|----------------------|---------|
| | General Engineering tools Hydraulic pressure Precision measuring tools Power factor Clipon meter Power analyzer Flow meter Pressure gauges Motor starters Meggar | | |

2. Stocks of Spare Parts

| Item | Minimum No required | Availability | Remarks |
|---------------------------------------|---------------------|--------------|---------|
| Bearings | | | |
| Packings | | | |
| Circlips & similar specials fasteners | | | |
| Lantern rings | | | |
| Wear rings | | | |
| | | | |

Technical Staff

Mechanical Engineer /or 01

Electrical Engineer 01

Technical officer
(Mechanical/Electrical) 01

Mechanic 01

Electrician 01

APPENDIX 3 - FINANCIAL STATEMENT

Summary of assets and liabilities based on the audited financial statements for the last three financial years (Current statement may be unaudited) together with the Financial Performance as indicated in the following schedule shall be submitted.

If the business has not been in operation for three years following schedule shall be submitted for the period that the business has been in operation together with the aforesaid financial statements.

Bidders whose financial capability is marginally less to undertake this bid may show credit facilities available to them from a Banks.

Financial performance for the last 3 years

| Year | xxxx | xxxx | xxxx |
|---|------|------|------|
| Turnover from Contracting | | | |
| Fixed Assets (FA) | | | |
| Current Assets (CA) | | | |
| Current Liabilities (CL) | | | |
| Long Term Liabilities (LL) | | | |
| Net Worth = Total Assets – Total Liabilities | | | |
| Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liability}}$ | | | |
| Liquidity Ratio = $\frac{\text{Current Assets (except stock)}}{\text{Current Liability}}$ | | | |
| Gearing Ratio = $\frac{\text{Dept Capital} \times 100}{\text{Total Capital Employed}}$ | | | |
| $\frac{\text{Turnover}}{\text{Total Operating Assets}} \times 100$ | | | |
| $\frac{\text{Net Profit}}{\text{Total Assets}} \times 100$ | | | |

APPENDIX 3A – AUTHORIZATION FOR BANK REFERENCES

BIDDER SHALL FILL THIS FORM AND PROVIDE WITH THE BID

.....[Bidder's Name]

.....[Address]

.....

.....

Manager.....[Name of Bank]

.....[Address]

.....

.....

Dear sir,

We hereby Authorize the National Water Supply & Drainage Board, on behalf of the procurement Committee, to seek reference of Bank details in order to evaluate the financial statues of our company M/s.....

..... [Bidder's Name & Address] in

Connections with the [Contract Name & Number] bid, submitted by us.

Yours faithfully,

.....

.....

Authorized office of the Bidder.

Note:- If there are more than one bank, separate letters should be submitted for each Bank

APPENDIX 4 - CONFIRMATION OF CAPABILITY OF PRODUCTION AND SUPPLY ACCORDING TO DELIVERY SCHEDULE.

[Address of the Manufacturer]

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

Chairman,
Procurement Committee,

Supply & Installation of Water Pumping Sets Motor Control Centre (MCC) and Accessories Water Supply Scheme
Contract No.....

We,[*name of manufacturer*]
of.....
.....[*address of manufacturer*]confirm that we have sufficient production capacity to produce the quantity of Pumps and Accessories submitted in our bid and shall deliver them according to the delivery schedule indicated in the bid.

.....
Authorized Officer of the Manufacturer.

.....
Seal of the Company.

Name:

Certified by

.....
Authorized Officer of the Manufacturer.

.....
Seal of the Company.

Name:

APPENDIX 5 - MANUFACTURER’S AUTHORIZATION TO SIGN THE CONTRACT

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The bidder shall include it in its bid].

Date : [insert date (as day, month and year) of Bid Submission]
No. : [insert contract number]

To : Chairman,
Procurement Committee,

**Supply & Installation of Water Pumping Sets Motor Control
Centre (MCC) and Accessories Water Supply Scheme
Contract No.....**

We[insert complete name of Manufacturer], who are official manufacturers of Water Pumping sets and accessories, having factories at[insert full address of Manufacturer’s factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide, Water Pumping Sets and Accessories manufactured by us [insert name] and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed :[insert signature(s) of authorized representative(s) of the Manufacturer]

Name :[insert complete name(s) of authorized representative(s) of the Manufacturer]

Title : [insert title]

Duly authorized to sign this Authorization on behalf of :[insert complete name of Bidder]

Dated on day of[insert date of signing].

**APPENDIX 6 - SCHEDULE OF PLANT AND EQUIPMENT PROPOSED
FOR PUMPS, INSTALLATIONS**

Note:

- The categories indicated below are only the minimum requirement proposed by NWSDB for information. The Bidder should declare the actual plant and equipment that he proposes to use for the execution of the works. These plant and equipment should be in usage for not more than five years after their first purchase/use.

| Item | Description | Minimum No. Proposed by NWSDB | Minimum No. Provide by the contractor | Minimum Period Proposed | Remarks (hired/own) |
|-------------|--|--------------------------------------|--|--------------------------------|----------------------------|
| | Mechanical | | | | |
| 1 | Dial gauge | | | | |
| 2. | Complete tool box | | | | |
| 3. | Allen Key set (Standard sizes) | | | | |
| 4. | Hand Roller 2 – 3 ton | | | | |
| 5. | Disc Grinding machine | | | | |
| 6. | Drilling machine (Both steel and concrete) | | | | |
| 7. | Welding Plant (Arc) | | | | |
| 8. | Gas Welding Plant (Oxy Estelline) | | | | |
| 9. | 3 Jaw Puller | | | | |

| Item | Description | Minimum No. Proposed by NWSDB | Minimum No. Provide by the contractor | Minimum Period Proposed | Remarks (hired/own) |
|-------------|--|--------------------------------------|--|--------------------------------|----------------------------|
| 10 | Grease gun | | | | |
| 11. | Vernier, micro screw gauge, outside/inside caliper | | | | |
| 12 | Measuring tape (steel) | | | | |
| 13 | Level gauge | | | | |
| 14 | Slip gauge | | | | |
| 15. | General Pliers, Nose pliers, hammer etc | | | | |
| 16. | Tripod | | | | |
| 17 | Mobile Crane (up to 5 tons) | | | | |
| 18. | Air Compressor with all painting accessories. | | | | |
| 19. | Decibel meter | | | | |
| 20 | Vibration pen | | | | |
| 21. | Thermo meter | | | | |
| 22. | Tacho meter | | | | |
| 23 | Filing set | | | | |
| 24. | Safety Equipments when handling chemicals and others | | | | |

| Item | Description | Minimum No. Proposed by NWSDB | Minimum No. Provide by the contractor | Minimum Period Proposed | Remarks (hired/own) |
|-------------|--|--------------------------------------|--|--------------------------------|----------------------------|
| | Electrical | | | | |
| 25. | Clip-on meter | | | | |
| 26. | Power analyzer | | | | |
| 27. | Hydraulic Crimping tool | | | | |
| 28. | Single Phase up to 5 KVA Generators. | | | | |
| 29. | Three phase 5 – 50 KVA Generators. | | | | |
| 30 | Three Phase 50 – 100 KVA Generators. | | | | |
| 31 | Three Phase 100 – 200 KVA Generators. | | | | |
| 32. | Necessary instruments & items for site lighting. | | | | |
| 33. | Insulation resistance tester | | | | |
| 34. | Earth resistance tester | | | | |

APPENDIX 7 - BIDDER’S AUTHORIZATION TO SIGN THE CONTRACT

[The Bidder shall require to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Bidder and should be signed by a person with the proper authority to sign documents that are binding on the Bidder. The bidder shall include it in its bid].

Date : [insert date (as day, month and year) of Bid Submission]
No. : [insert contract number]

To : Chairman,
Procurement Committee
.....
.....

**Supply & Installation of Water Pumping Sets Motor Control
Centre (MCC) and Accessories Water Supply Scheme
Contract No.....**

We[insert complete name of the Bidder], who
.....[insert full address of Bidder], do hereby
authorize [insert complete name of Bidders authorize
officer who signs the contract] to submit a bid on behalf of our company and to subsequently
negotiate and sign the Contract. We will supply the goods as per the Contract.

Specimen Signature

Signed :[insert signature(s) of authorized representative(s)
of the Bidder]

Name :[insert complete name(s) of
authorized representative(s) of the Bidder]

Title : [insert title]

Duly authorized to sign this Authorization on behalf of :[insert
complete name of Bidder]

This is to certify that the seal and signatures of legal representative and authorized person
affixed to power of attorney attached hereto are found to be authentic.

.....
Signature of Attorney at Law

.....
Seal of Attorney at Law

In the place of (.....
address)

Date

**APPENDIX 8 - TOR FOR THE INDEPENDENT INSPECTION AGENCY
INSPECTION OF PUMP MOTOR ASSEMBLIES**

| | Test | Measurement Value / Observation Comments |
|-----|---|---|
| 01. | <p><u>Visual Tests</u> Casting, Machining, Welding, Dimensions, finish data like fillets, corners etc. Surface finish, surface preparation, painting. Alignment of the whole assembly.</p> | |
| 02. | <p><u>Test Set – up / facilities</u> Suitability of the factory test set – up for the specified pump tests. Suitability of the instrumentation for measurements, data transfer / storage / processing, report generation, including acceptable calibration.</p> | |
| 03. | <p><u>Status of the tested equipment, whole set –up, Instrumentation etc after running for an adequate time stabilization.</u> Temperature at various points. noises Vibrations Leakages Distortions Cavitations Others</p> | |
| 04. | <p><u>Measurements (General)</u> Voltage Currant Power Power Factor Insulation Resistance (others specific to the particular contract)</p> | |

| | Test | Measurement Value / Observation Comments |
|-----|--|---|
| 05. | <p><u>Operational Measurements</u></p> <p>Flow rate</p> <p>Delivery pressure</p> <p>Suction pressure</p> <p>Power drawn by motor</p> | |
| 06. | <p><u>Hydrostatic Test</u></p> <p>For pumps between 20 – 75 kw.</p> <p>Test the components at 150% of the pump shut off head for 10 minutes.</p> <p>For pumps larger than 75 kw.</p> <p>Test the components at 150% of the pump shut off head for 30 minutes.</p> | |

APPENDIX 9 - MANUFACTURER’S AWARENESS OF THE TOR FOR INDEPENDENT INSPECTION AGENCY

[Address of the Manufacturer]

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

Chairman,
Procurement Committee,

Supply & Installation of Water Pumping Sets Motor Control Centre (MCC) and Accessories Water Supply Scheme

Contract No.....

We, [name of manufacturer] of

.....
..... [address of manufacturer] confirm that we have noticed that

- a) **Appendix 8** – TOR for Independent Inspection Agency
- b) **Clause 25** of General Conditions of Contract

.....
Authorized Officer of the Manufacturer.

.....
Seal of the Company.

Name :.....

Certified by

.....
Authorized Officer of the Manufacturer.

.....
Seal of the Company.

Name:

**APPENDIX 10 - MANUFACTURER’S WARRANTY FOR THE GOODS
(SUPPLIED UNDER THE CONTRACT)**

[Address of the Manufacturer]

.....

Chairman, National Water Supply and Drainage Board,
 Galle Road, Ratmalana, Sri Lanka.

**Supply & Installation of Water Pumping Sets Motor Control
 Centre (MCC) and Accessories Water Supply Scheme
 Contract No.....**

We,[*name of manufacturer*] of

[*address of manufacturer*] warrant that
 the goods supplied under this contract are new, unused, of the most recent or current models
 and have incorporated all recent improvements, and no defects arising out of the design,
 material or workmanship from any act that may be develop under normal use of the supplied
 goods.

If there is any defects during the warranty period specified in the **Clause 27** of the General
 Conditions of Contract, we shall attend to repair or replace the defective goods with all
 reasonable speed without any cost to the Purchaser.

Also we enclose further details in the given table below.

| Part/ Section | Warranty period |
|----------------------|------------------------|
| | |
| | |
| | |

.....
 Authorised Officer of the Manufacturer.

.....
 Seal of the Company.

Name :.....

Certified by

.....

Authorised Officer of the Manufacturer.

.....

Seal of the Company.

Name:

APPENDIX 11 - GUIDELINES FOR THE ACCEPTANCE OF PUMP AND MOTOR ASSEMBLES AT NWSDB SITES BY INSPECTION TEAM

| | Activity / Test | Measurements / Value / observation Comments. |
|-----|---|---|
| 01. | Preparation of list of finalised and agreed list of parameters, delivery scope, submittals etc. of parameters, after PC –Procurement Committee approval, any subsequent amendments. | |
| 02. | Manufacturer Country of Origin Make Model Delivery of Test reports (3 rd party / Manuf./ client.) | |
| 03. | Compliance of the whole delivery scope with finalised client’s requirements. | |
| 04. | Compliance of the specification of equipment, spare, tools, submittals etc. | |
| 05. | Compliance of the installation with the manufacturer’s recommendations. | |
| 06. | Compliance of the test instruments with properly carried out calibration. | |
| 07. | Suitability of the instrumentation for measurement, logging, processing etc. of the test data with regard to range, accuracy, least count etc. | |
| 08. | Observation of the whole set-up after running the assembly until stabilisation. | |

| | Activity / Test | Measurements / Value / observation Comments. |
|-----|---|---|
| 09. | <p>Get the measurements for 05 operating points.</p> <p>1. Shut off 2. Oper. Point 3. Max. recommended Point 4. a point between (1) & (2) above 5. a point between (2) & (3) above</p> <p>1. Current 2. Voltage 3. Power drawn by motor 4. Flow rate 5. Suction pressure 6. Delivery pressure</p> | |
| 10. | <p>Tabulate measurements, calculations</p> <p>Flow rate Pressure Power drawn by pump Power drawn by motor Pump efficiency Overall efficiency (any other particular to this contract)</p> | |
| 11. | <p>Any deviations of the test results from the submitted test reports (3rd party / manuf./ client)</p> | |
| 12. | <p>Observations / Comments on the deviations.</p> | |
| 13. | <p>Acceptance / rejection of the equipment with justifications.</p> | |

APPENDIX 12 – AFFIDAVIT BY THE BIDDER

I of being a (Buddhist or any other religionist), do hereby solemnly sincerely and truly declare and affirm as follows.

- 01. I am the Affirmant above named.

- 02. I hereby declare that I have applied for the contract of National Water Supply and Drainage Board bearing No: and my spouse or dependent does not work in National Water Supply and Drainage Board on permanent, casual or contract basis.

The foregoing affidavit having been read over and explained to the affirmant above named who having understood its nature content and context affirmed hereto and set his usual signature hereto in on this day of 20.....

Before me

.....
Declarant

.....
Justice of the Peace /
Commissioner for oaths