

TAMILNADU WATER SUPPLY AND DRAINAGE BOARD

PERFORMANCE BASED BID DOCUMENT

FOR OPERATION AND MAINTENANCE OF WSS/ CWSS



NAME OF WORK: OPERATION AND MAINTENANCE OF CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District for the period of 10 Months FROM 01.06.2022 TO 31.03.2023.

Last date of submission: Up to 03.00 P.M on 09.06.2022

Opening date: At 3.30 P.M on 09.06.2022

CHECK LIST TO BE ENCLOSED BY BIDDER (along with Bid Document)

The check list is only indicative and to assist the bidder in satisfactorily enclosing all required major documents for Technical Qualification. The list is not exhaustive and the bidder should read all clauses of the bid document so as to enclose all documents as required:

A. BID SECURITY

- i) Bid security for a value of Rs.19,000/-to be furnished
- ii) Furnish the details of Bid Security as under

Sl. No.	Name of the Bidder	Amount and type of security	Issued By

Sl. No.	Description	Page Nos. in the Bidder's Document
1.	Affidavit as an undertaking given by the Contractor should be certified by the Notary duly stamped on a Notaries Stamp (Annexure-XI)	

List of Certificates to be enclosed by the Bidder (Notarized as per requirement)

Sl. No.	Description	Page Nos. in the Bidder's Document
1.	Signature of the proprietor or proprietress attested by the Notary public.	
2.	Signature of all the partners / power of attorney attested by the Notary public	
3.	Registration of the firm, Signature of all the authorized person attested by the Notary public	
4.	A copy of the listed Power of Attorney authorizing the signatory of the bidder.	
5.	Proof of Registration of firm / company	
6.	Audited Balance sheets	

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Sl. No.	Description	Page Nos. in the Bidder's Document
7.	Credit line certificate from Financial institutions	
8.	Income Tax clearance certificate.	
9.	Valid GST registration certificate.	
10.	Certificate of performance issued by not less than the rank of Executive Engineer / Responsible person of the organization.	

SIGNATURE OF TENDERER

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[EXECUTIVE ENGINEER/TWAD Bd.]

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49	Declaration by the bidder pertaining to blacklisting / debarment etc., - (7.1.6) (Annexure – X)	
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	Certificates:	
1	Signature of the Proprietor or Proprietress attested by the Notary Public	
2	Signature of all the Partners/Power of attorney attested by the Notary Public.	
3	Registration of the firm, signature of the authorized person attested by the Notary public.	
4	A copy of the listed Power of Attorney authorizing the signatory of the bidder	
5	Proof of Registration of firm/company.	

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Item No	Description of Work	Page No
6	Audited Balance sheets.	
7	Credit line certificate from Financial Institutions.	
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[CONTRACTOR]

[EXECUTIVE ENGINEER/TWAD Bd.]

TAMIL NADU WATER SUPPLY AND DRAINAGE BOARD
TENDER CALL FOR OPERATION AND MAINTENANCE OF
WATER SUPPLY SCHEMES /COMBINED WATER SUPPLY SCHEMES

INVITATIONS FOR BIDS -SINGLE COVER PERCENTAGE TENDER SYSTEM

Bid No.	02 / F. Outsourcing of CWSSs / JDO / 2022 / dt.19.05.2022		
Eligibility	Sl.No.1 to 4 - Class IV and above, Sl.No.5 to 12 - Class III and above. (Bidders having registration for the works in Government of Tamil Nadu / Other State Govt or State / Central Govt. Under takings)		
Invitee	The Executive Engineer, TWAD Board, Maintenance Division, Integrated Office Complex, No.35, J.K. Nagar, Kajamalai (Post),Trichy – 620 023, The under signed reserves the right to reject any or all the bids without assigning any reasons therefore.		
Sale of Bid & Place of Sale	27.05.2022 to 07.06.2022 at O/o the Executive Engineer, TWAD Board, Maintenance Division, Integrated Office Complex, No.35, J.K. Nagar, Kajamalai (Post),Trichy – 620 023 by cash or Demand Draft on any Scheduled/ Nationalized bank payable at Trichy for Rs.1180/- (Rs.1000 + GST 18 %) If bid documents are required by post an amount of Rs.500/- each is to be paid additionally.		
Down loading	www.tenders.tn.gov.in and www.twadboard.gov.in . (free of cost)		
Bid Submission	09.06.2022 before 3.00 PM at the office of the Tender Invitee in person or through post. This office will not be held responsible for postal delay, if any.		
Bid opening	09.06.2022 at 3.30 PM at the office of the Tender Invitee		
SI No.	Name of work	Approximate value of work (Rs. in Lakhs)	Bid security (in Rupees)
Outsourcing of Operation and Maintenance of the following CWSSs in Trichy District for the period from 01.06.2022 to 31.03.2023 – (10 Months).			
1	CWSS to Thirupanjeeli, Thiruvellari and 19 other habitations in Manachanallur Union of Trichy District.	Rs.9.99	10,000/-
2	CWSS to Thanganagar and 10 other habitations in Uppiliyapuram union of Trichy District.	Rs.12.23	13,000/-
3	CWSS to Thandalai and 26 other habitations in Musiri union of Trichy District.	Rs.12.01	13,000/-
4	CWSS to Vellur and 24 habitations in Musiri union in Trichy District.	Rs.13.10	14,000/-
5	CWSS to Pirattiyur (Part of Trichy City Corporation) and 10 Habitations in Anthanallur Union & 9 Habitations in Manikandam Union of Trichy District.	Rs.15.67	16,000/-
6	CWSS to Irungalur and 29 other Habitations in Manachanallur and Lalgudi unions of Trichy District.	Rs.17.16	18,000/-
7	CWSS to Kolakkudi and 6 habitations in Thottiyam union of Trichy District and CWSS to Elurpatty and 28 other habitations in Thottiyam union of Trichy District.	Rs.15.84	16,000/-

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8	CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District.	Rs.18.13	19,000/-
9	CWSS to T.Pudupalayam and 7 other habitations in Thottiyam union of Trichy District and CWSS to Sriramasamudram and 26 other habitations in Thottiyam union of Trichy District.	Rs.20.65	21,000/-
10	CWSS Moovanur and 44 habitations in Musiri and Manachanallur unions in Trichy District.	Rs.21.51	22,000/-
11	CWSS to Thumbalam and 24 other habitations in Thathaiyengarpettai Union of Trichy District.	Rs.24.03	25,000/-
12	CWSS to Amoor and 56 habitations in Musiri union of Trichy District.	Rs.23.81	24,000/-

Sd/-T.Panneerselvam,19.05.2022
EXECUTIVE ENGINEER, TWAD BOARD,
MAINTENANCE DIVISION, TRICHY.

[CONTRACTOR]

[EXECUTIVE ENGINEER/TWAD Bd.]

II. LETTER OF APPLICATION

(Letter head paper of the Applicant, including full postal address, telephone no. and E.Mail)

Dated:

To

**The Executive Engineer,
TWAD Board, Maintenance Division, Trichy**

Sir,

Being duly authorised to represent and set on behalf of

_____ (hereinafter-the Applicant),
and having reviewed and fully understood all the information provided, the undersigned hereby apply for consideration as a bidder for the following:

INVITATION FOR BID No: 2 / F. Outsourcing of CWSSs / JDO / 2022 / dt. 19.05.2022

OPERATION AND MAINTENANCE OF WSS/ CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District for a period of 10 Months FROM 01.06.2022 TO 31.03.2023.

Attached to this letter please find copies of original documents defining the Applicant's legal status

- the principal place of business and
- the place of incorporation (for applicants who are corporation) or the place of
- registration and the nationality of the owners (for applicants who are partnerships or individually owned firms)

Your Agency and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarification from the bankers and clients regarding any financial and technical aspects. This 'Letter of Application' will also serve as authorization to any individual or authorized representative of any

institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves to verify the statements and information provided in this application, or with regard to the resources, experience and competence of the Applicant.

This application is made in the full understanding that

- Bids by the applicants will be subject to verification of all information submitted for consideration, at the time of bidding.

Your Agency reserves the right to

- Amend the scope and value of any contract bid under this project.
- And reject or accept any application, to cancel the entire bidding process and reject all the applications and
- Your Agency shall not be liable for any such action and shall be under no obligation to inform the Applicants of the grounds for them

It is hereby certified that the **Excess/ Less percentage for the** Total Amount and price for all the items covered in the Bill of Quantities set out in the Price Schedule have been furnished clearly in figures and words and it is hereby agreed to execute the works at the rates and prices mentioned therein and to receive the payments on measured quantities as per the Conditions of the Contract.

It is hereby distinctly and expressly declared and acknowledged that before the submission of the bid, the instructions therein have been carefully followed and the conditions of the Contract and other terms and conditions have been read. It is also declared and acknowledged that careful examination of the bid documents has been carried out with reference to the specifications, quantities, location where the said work is to be done, materials required for this contract and their source and other requirements, covenants, stipulations and restrictions. It is distinctly agreed that no claim or demand will be made on the TWAD Board by the applicant, arising out of any misunderstanding or misconception or mistake of the said requirements, covenants, stipulations, restrictions, conditions etc on the part of the Applicant.

The Income Tax Clearance Certificate and Valid GST Registration Certificate in currency are enclosed

The Bid Security of **Rs. 19,000/- (Rupees Nineteen thousand only)** is enclosed in

the shape of (enter the form and other details of the bid security) drawn in favour of the **Executive Engineer, TWAD Board, Maintenance Division, Trichy**. It is hereby agreed that in case the bid is accepted, the Performance Security to the value and in the manner/ form prescribed by the Employer will be submitted and agreement entered into within the time frame stipulated for the due fulfillment of the contract. It is agreed that in the event of non remittance of the required Performance Security and execution of the Agreement within the stipulated time frame, the Bid Security deposited with the bid will be forfeited. In the event of non- acceptance of the bid offered by the Applicant, the Employer shall intimate the applicant of the rejection of his bid, upon which the applicant can get his Bid Security refunded on an application for the same. Any notice required to be served on the applicant shall be deemed to have been sufficient if delivered personally or left at the address given herein or sent by post either by registered mail or ordinary. Such notice shall, if sent by post shall be deemed to have been served on the applicant at the time when in due course of post it would be delivered at the address to which it is sent. For all purposes, the address given herein will serve as permanent address and any change therein will be promptly intimated then and there.

It is fully understood and agreed that on receipt of communication of acceptance of the bid from the accepting authority, there emerges a valid contract between the Applicant and TWAD Board represented by the officer accepting the bid and is expressly agreed that the bid documents with the schedules, conditions of the contract, negotiations, communications and other correspondence connected to this contract will all constitute the contract for this purpose and be the foundation of rights on both the parties.

It is agreed that providing earmarked quantity of water supply to all the beneficiaries under the scope of in the list of WSS/CWSS shall be considered as the essence of this operation and maintenance contract and will be commenced immediately on getting information of the acceptance of the bid and any deficiency in supply due to contractor's operation and maintenance will be subjected to the relevant penal clauses contained in the Conditions of the Contract.

It is hereby agreed that the qualified personnel to operate and maintenance shall be deployed as required.

The Applicant hereby agrees to undertake full responsibility for the safety of the scheme

components and the operating staff during the contract period.

The Applicant hereby agrees that the bid will not be withdrawn during the period of validity as indicated in the bid documents and also during such extended periods agreed to by the applicant. The Applicant understands that the withdrawal of the bid after bid submission is not permitted.

It is explicitly understood that the Tender Inviting / accepting Authority is not bound to accept the lowest or any bid received.

It is hereby agreed that the Tender Inviting / accepting Authority reserves the rights to reject any or all the bids without assigning any reasons there for.

Dated this day of Month of

Signature of the Applicant

(To be signed by the authorized signatory with seal)

NAME OF WORK:

OPERATION AND MAINTENANCE OF THE CWSS TO KALLAKUDI TP - PULLAMBADI TP AND 7 RURAL HABITATIONS IN LALGUDI & PULLAMBADI UNION OF TRICHY DISTRICT TO SUPPLY EARMARKED QUANTITY OF WATER BY CARRYING OUT ALL THE NECESSARY WORKS SUCH AS PUMPING, ATTENDING TO LEAK AND BURST, ATTENDING TO ELECTRICAL AND MECHANICAL REPAIR WORKS, PROVIDING DISINFECTION, PREVENTIVE MAINTENANCE OF ALL INSTALLATIONS, SUMP CLEANING AND DELIVERANCE OF EARMARKED QUANTITY OF WATER TO THE BENEFICIARIES AS PER SCHEDULE AND STANDARD OPERATING PROCEDURES AND AS DIRECTED BY THE TWAD BOARD OFFICERS FOR A PERIOD OF 10 MONTHS FROM 01.06.2022 TO 31.03.2023.

III . INSTRUCTIONS TO BIDDERS**A. GENERAL****1. Scope of the Bid**

This is an operation and maintenance of the Water Supply Schemes/ Combined Water Supply Schemes Contract and the contractor is responsible for providing earmarked quantity of water supply to all the beneficiaries under the scope of the Water Supply Scheme/ Combined Water Supply Scheme by carrying out all the necessary works, such as pumping , attending leaks and bursts in the pipelines inclusive of materials and workmen, attending all repair works in the pump set, valves and all other machineries related to the maintenance, and inclusive of spares/materials, accessories, cleaning of all storage structures like sumps, MSR, BPT, stand post etc. lubricants, chemicals, as and when required in accordance with the specifications as appropriately applicable to the Quality Parameters of the relevant BIS, TNBP, Bid Documents and deliverance of earmarked quantity of water to the beneficiaries as per schedule etc for successful operation and maintenance of the schemes for the specified period

1.1 The **Executive Engineer,TWAD Board, Maintenance Division, Trichy** (herein after referred as -Employer (in these documents) invites bids for the operation and maintenance of CWSSs (as defined in these documents and referred as -the works) as detailed in the Bill of

Quantities. The bidder shall offer their/his percentage Excess / Less for the total amount in the Bill of Quantities in figure and word.

Salient Details (as per Scope of the Scheme/ schemes):

VIDE ANNEXURE - I

1.2 Down loading the documents from website.

The documents can be down loaded free of cost from the web site www.tenders.tn.gov.in and www.twadboard.tn.gov.in by the tenderer. Tender should, thereafter be submitted duly filled and signed along with all required documents to the tender inviting authority as notified in the IFB subject to the following:

- 1.2.1. The bidder shall furnish a certificate to the effect that **no correction/ alteration on the bid document as found in the web site** was made by him and he shall abide by all the terms, conditions and specifications contained in the bid document.
- 1.2.2. No cost towards bid document shall be required to be paid by the bidders who are using the forms downloaded from the designated website.

The bidder shall submit the tender to the tender inviting authority as prescribed in the Invitation for Bid.

- 1.3** The Bid Document can be purchased from the **Executive Engineer, TWAD Board, Maintenance Division, Trichy** by remitting the required cost of Bid Document as stipulated in the Invitation for Bid.

2. Method of Bidding

- 2.1 If the bid is made by an individual, the bid documents shall be signed by the individual with his full name and current address.
- 2.2 If the bid is made by a proprietary concern, the bid documents shall be signed by the proprietor with his full names as well as the name of the firm and full address. In the case of an authorized person holding power of attorney signing the bid documents, a certified copy of the registered power of attorney **including still in existence certificate** should

accompany the bid documents. The signature of the Proprietor shall be attested by a notary public and enclosed as documentary evidence.

- 2.3 If the bid is made by a partnership firm, the bid documents shall be signed by all the partners of the firm along with their full names and current address with specific mention on the registered address of the firm. In the case of a partner holding power of attorney signing the bid documents, a certified copy of the registered power of attorney should accompany the bid. It is also mandatory to furnish a certified copy of the registered partnership deed, current address of the partners, and registered address of the firm along with the bid. The signature of all the partners/ power of attorney shall be attested by a notary public and enclosed as documentary evidence.

2.4 If the bid is made by a limited company or a limited corporation, it shall be signed by a duly authorized person holding power of attorney for signing the bid documents in which case a certified copy of the registered power of attorney shall accompany the bid. Such limited company or corporation may be required to enclose satisfactory evidence of its existence along with the bid.

- 2.5 The bids from the contractors / firms shall be accompanied by an attested copy of the Income Tax Clearance Certificate relating to the previous financial year and Valid GST Registration Certificate.

3. One Bid per Bidder

Each bidder shall submit only one bid for this work. A bidder who submits or participates in more than one bid will be disqualified.

4. Cost of Bidding

The bidder shall bear all the costs associated with the preparation and submission of his bid. The Employer will in no case be responsible for those costs, regardless of the conduct or the outcome of the bidding process.

5. Site Visit.

The bidder, at the Bidder's own responsibility and risk is advised to visit and examine the site of works and its surroundings and obtain on his own all information that may be necessary for preparing the bid and entering into contract for this operation and maintenance works. The costs of visiting the site and its surroundings shall be at the bidder's expense. Data made

available are only for the information of bidder and the employer is not responsible for its correctness.

The bidder and any of his personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the bidder will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs and expenses incurred as a result of the inspection.

The bidder should carefully inspect the site to assess the prevalence of ground reality of the scheme to be operated and maintained to quote the rate appropriately and no extra rate will be paid on any account at a later date during contract period.

B. Eligibility / Qualification Criteria

6. Eligible Bidders

6.1. The Invitation to Bid is open to any bidder who meets the Physical and Financial eligibility criteria mentioned in the following clause 7

6.2. Joint Venture / Subletting of contract is not permitted.

7. Qualification of the Bidder

7.1 General

Bidders shall provide the following as part of their bid in the prescribed formats.

7.1.1 A registered Power of Attorney authorizing the signatory of the bid to commit on Behalf of the bidder should be enclosed.

7.1.2 Proof of Registration of the firm/company under Companies Act should be enclosed.

7.1.3 List of equipments available with the bidder for deployment in the project should be furnished in Annexure-VI.

7.1.4 Evidence of access to lines of credit and availability of other financial resources, credit line certificates from financial institutions should be enclosed in the prescribed Annexure-VIII.

7.1.5 Litigation details of the bidder with the details of the parties concerned and the amount involved **and any Bank Guarantee executed for any purpose** should be furnished in Annexure-IX.

- 7.1.6 The bidder should declare clearly whether the bidder has been black listed, banned or debarred in Central Government Department/Under- taking/ Organization or any State/ Union Territory/ Department Undertaking/ Organization in Annexure-X.
- 7.1.7 Income Tax Clearance Certificate in currency as proof of having remitted the income tax for the previous financial year (with reference to the year in which the bid is opened)
- 7.1.8 Valid GST registration certificate issued by competent authority and latest GST filing return should be produced.
- 7.1.9 GST is not applicable for Maintenance Contracts (and) in case of composite contracts where the value of materials involved is less than 25%, as per Government of India Notification No:2/ 2018-Central Tax (rate) New Delhi, 25th January 2018.
- 7.1.10 Affidavit as an undertaken is to be given by the contractor as per Annexure XI and it should be certified by the notary duly stamped an a notary stamp.

7.2 Performance Eligibility:

a. Physical Criterion:

- i) The contractor who has executed the CWSS for which , the Tender is now called for Operation & Maintenance, is NOT eligible during its defect liability period.
- ii) The contractor should have minimum one year experience in similar nature of work of O&M of CWSS / Execution in TWAD Board.

b) Financial:

The Bidders should have a cash flow of 3 months of the O& M cost of Tender now called for. Evidence of access line of credit and availability of other financial resources, credit line certificates from the Financial Institutions should be enclosed in the prescribed format Annexed as Annexure - VIII

Contractors registered in TWAD under **Class III** i.e., those who are eligible to take up the work costing upto **Rs. 30.00 lakhs** and above are eligible to tender for this work. Contractors registered in other Departments and Undertakings of the Central or State Government in the corresponding class for taking up such work, who have carried out similar works of the same or higher magnitude are also eligible to tender for this work. Contractors not Registered in the Board and who intend to participate in the tender, subject to their eligibility as above are requested to obtain a copy of the tender

document from the office referred before submitting their Tender. They should furnish proof of their registration in the appropriate class and experience as indicated above while submitting their tenders, otherwise their tenders will be treated as non-responsive. The tender received from ineligible contractors will be treated as non-responsive. However, the successful Tenderer will have to get himself registered in the Board in the appropriate class.

- i. In case of experience certificate of a Private Organization, the following criteria should be satisfied:
 - a) The Photographs of the works undertaken for the Private Organization should be enclosed as a proof.
 - b) The certificate of the work done for the Organization be enclosed by a Senior Official who should be at least of the rank of the General Manager or Equivalent.
 - c) The above certificate should be countersigned by a Government Department Engineer at least of the rank of Assistant Executive Engineer and should also be notarised.
- ii. For the experience certificates furnished by the bidders which are obtained from the Departments outside the State, clarification will be obtained by the Employer from the concerned Department whenever felt necessary as to whether the details furnished in the certificates are genuine, before finalization of evaluation.
- iii. The bills/ claims should be prepared by the contractor as per Agreement and in accordance with the agreement executed and submitted to the Department.

7.3. Disqualification:

Even though the bidders meet the above qualifying criteria, they are subject to be disqualified at any point of time if they have

- 7.3.1.** made misleading or false representation in the form statements and attachments submitted and/or
- 7.3.2.** Record of poor performance during the last 5 years as on the date of application such as abandoning the work rescinding of contract for which the reasons are attributable to the non

performance of the Contractor inordinate delays in completion, consistent history of litigation awarded against the applicant or any of its constituents or financial failure due to bankruptcy etc.

7.3.3. been debarred / blacklisted as on the date of application by any Central / State Government Department/ Undertaking/ Organization and their bid will not be taken up for evaluation.

8. SPECIAL ATTENTION TO BIDDERS.

8.1. Copies of experience certificates obtained from the Officer not below the Rank of **Executive Engineer** of respective user departments must be attested by Notary Public and produced.

8.2. These Certificates should contain the following details

- 1) Name of Scheme (Name of the State also to be specified) :
- 2) Contract No. and date :
- 3) Value of Contract : Rs.
- 4) Name of Contractor with full address :
- 5) Period of completion/ maintenance as specified in the Contract :
- 6) Date of commencement of work :
- 7) Actual date of completion & commissioning/ of maintenance :
- 8) Reason for the delay if any :
- 9) Full details of components : executed / maintained under this contract :
- 10) Performance of the work should contain the following details :

Signature of Officer with Seal

C. BID DOCUMENTS

9. Contents of Bid Documents

The Bid Documents will comprise the following documents & addenda issued in accordance with clause 11 below:

- 1) Invitation for Bids
- 2) Instruction to Bidders
- 3) Eligibility/Qualification Criteria Forms of Bid
- 4) General Conditions of contract
 - a) Part I - Roles and responsibilities of the Contractor
 - b) Part II - Payment mode for Contractor
 - c) Part III - Role of TWAD Board
 - d) Part IV - Labour Laws to be followed
 - e) Part V - Special Conditions of Contract
 - f) Part IV - List of Beneficiaries and earmarked quantity of water to be supplied under this contract
- 5) Schematic/Flow Diagram
- 6) Bill of Quantities
- 7) Forms of Agreement

10. Clarification of Bid Documents.

A prospective bidder requiring clarification may raise the same in writing or **by Electronic Mail to Tender Inviting Authority** at the address indicated in the invitation for bid. The employer will respond to any clarification sought for.

11. Amendment to Bid Documents

- 11.1. At any time prior to 48 hours to the deadline for submission of bids, the Employer may amend the bid documents by issuing Addenda.
- 11.2. Any Addendum thus issued shall be part of the bid documents and shall be communicated in writing or by cable to all purchasers of the bid documents. Prospective bidders shall promptly acknowledge the receipt of each addendum by cable to the Employer.
- 11.3. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend as necessary the deadline for submission of bids, in accordance with Clause 21.2 of Submission of Bids.

D. PREPARATION OF BIDS

12. Language of the Bid

The bid, and all correspondences and supporting documents related to the bid exchanged by the bidder and the Employer shall be written in English. Supporting documents and printed literature furnished by the bidder may be in other language provided they are accompanied by an accurate translation of the relevant passages in either English or Tamil language, in which case, for purpose of interpretation of the bid, the translation shall prevail.

13. Documents comprising the Bid

The bid submitted by the bidder shall comprise the following:

- i. The Bid Documents duly filled and signed
- ii. List of Annexure as below:

1.	List of equipments available with the bidder – (7.1.3) (Annexure – VI)
2.	Sample Format for evidence of access to or availability of credit facilities- (7.1.4) (Annexure – VIII)
3.	Details of Litigation if any – (7.1. 5) (Annexure – IX)
4.	Declaration by the bidder pertaining to blacklisting / debarment etc., - (7.1.6) (Annexure – X)
5.	Affidavit as an undertaking given by the Contractor should be certified by the Notary duly stamped on a Notaries Stamp (7.1.10) (Annexure-XI)

- iii. List of Certificates.

- a. Signature of the Proprietor or Proprietress attested by the Notary Public (2.2)
- b. Signature of all the Partners/Power of Attorney attested by the Notary Public – (2.3)
- c. Registration of the firm, signature of the authorised person attested by the Notary Public –(2.3)
- d. A copy of the listed Power of Attorney authorising the signatory of the bidder – (7.1.1)

- e. Proof of Registration of firm/Company(7.1.2)
 - f. Credit line Certificate from Financial Institutions – (7.1.4) (Annexure VIII)
 - g. Income Tax Clearance Certificate –(7.1.11)
 - h. Latest GST filing returns Certificate –(7.1.12)
 - iv. Certificate of performance issued by not less than the rank of Executive Engineer of the Government organization concerned / responsible person of the private organization
- Bid Security (17.1)
- v. Any other material required to be completed and submitted by the bidders in accordance with these instructions.
 - i. Priced Bill of Quantity duly signed.
 - ii. The Bid should be submitted only in the original documents as issued by the Tender Inviting Authority or as downloaded from the website. No alteration or correction should be made under any circumstances in the Bid Documents issued by the Tender Inviting Authority.
 - iii. Conditional tenders are liable for rejection

14. Bid Prices

- 14.1 The contract shall be for the whole works as described in sub clause (1.1), based on the priced bill quantities submitted by the bidder.
- 14.2 The bidder shall fill in Excess / Less percentage for the total amount (both in figures and words) Corrections, if any, shall be made by crossing out and initialing.
- 14.3 All duties, taxes and other levies payable by the contractor, under the contract for any other cause shall be included in the rates, prices and total bid price submitted by the bidder.
- 14.4 The rate and prices quoted by the bidder is firm till the completion of contract period and price adjustments are not allowed.

15. Currencies of Bid and Payment

The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees.

16. Bid Validity

- 16.1. "Bids shall remain valid for a period not less than ninety days from the date of opening of Bid, as per Sec. 14.2 of Tamil Nadu Transparency in Tenders rules 2000.
- 16.2. A bid validity for a shorter period shall be rejected by the employer as non-responsive."
- 16.3. In exceptional circumstances, prior to expiry of the original time limit, the Employer may request the bidders to extend the period of validity for a specific additional period. The request and the bidders' response shall be made in writing or by cable. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend his bid security for; the period of extension.

17. Bid Security

- 17.1 The bidder shall furnish, as part of his bid, as bid security of **Rs.19,000/- (Rupees Nineteen thousand only)** duly pledged in favour of **the Executive Engineer, TWAD Board, Maintenance Division, Trichy** in any one of the following forms.

Demand draft / Deposit call receipt / Fixed deposit receipt (FDR) / Bank Guarantee (Prescribed format of the Bank Guarantee (Unconditional) for the bid security issued by a Nationalised Bank/Scheduled Bank located in India/National savings certificate/Post office Savings Bank deposits.

- 17.1.1. Unconditional Bank Guarantee in the prescribed format for the bid security issued by a Nationalised Bank/Scheduled Bank located in India & valid for 45 days after the end of the validity period of the bid.
- 17.1.2. FDR and deposits at call receipts should contain lien certificate issued by the Bank for encashment by department. The FDR furnished by the firm should also bear the signature of the authorized signatory on a revenue stamp at the back of the FDR. (The contractors produced FDR in the name of Executive Engineer whether it may be accepted)

17.2 Any bid not accompanied by bid security in stipulated form shall be rejected by the Employer as nonresponsive

17.3 The bid security of the unsuccessful bidders will be returned as promptly as possible, but not later than 30 days either after the expiration of the period of bid validity or after finalizations of the bid whichever is later.

17.4 The bid security of the successful bidder will be returned after the bidder has furnished the required performance security and signed the agreement. No interest is payable on Bid security by the Employer.

17.5 The bid security shall be forfeited:-

17.5.1. In the case of bidder withdrawing or modifying his bid during the period of bid validity.

17.5.2. If the bidder does not accept the corrections of the bid price, pursuant to clause 28 of "Bid Opening and Evaluation".

17.5.3. In the case of a successful bidder failing to furnish the performance security in the specified form within the stipulated time.

17.5.4. In the case of successful bidder failing to enter into agreement within the stipulated time.

17.5.5. In the case of the bidder severing the conditions after intimation of the acceptance of the bid.

18. Format and Signing of Bid

18.1. The bid document submitted to the Employer shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the bidder in accordance with-Instructions to Bidders. All pages of the bid and where entries or corrections have been made shall be initialed by the person signing the bid.

18.2. The bid shall contain no alteration or additions, except those to comply with the instructions issued by the Employer and wherever necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person signing the bid.

- 18.3. Bids as issued by the Employer should be submitted duly signed at the bottom of each page, failing which the bids will be summarily rejected.

E. SUBMISSION OF BIDS

19. Sealing and Marking of Bids

- 20.1. The bids should be submitted in the original bid documents as issued by the Employer.
- 20.2. The bid documents under no circumstances are transferable.

The cover containing the Bid should be pasted, sealed and super-scribed properly.

20.3. Format and signing of Tender

- 20.8.1 The Tenderer shall submit one original as described in the Instruction to Tenderers, bound in a format as stipulated.
- 20.8.2 All bidders will be provided with an electronic copy of the schedule of prices. Cells that contain permanent information are protected and cannot to be changed by the Bidder.
- 20.8.3 Cells into which the bidder can enter percentage Excess/ less (where these may vary), will be left unprotected. However, the Employer will not enter any formulae in the spread sheets.
- 20.8.4 The Bidder is entirely responsible to ensure that the calculations presented in the Schedule of Prices are correct, and that the Bidder's offer is complete in all respects.
- 20.8.5 The Price Bid completed in computerized printout, adopting the format of the Bid document in total and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder.
- 20.8.6 The Tenderer shall submit the Price bid in one original. The BOQ in the format which is uploaded.
- 20.8.7 The Bidder will need to submit the completed Schedule of Prices together with the bound copy of the Price Proposal which has been issued by the Employer along with the separate Priced Schedule of Prices, and to affix his signature on all pages of his submittal.

20.8.8 The Tender shall contain no alternations, omissions or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Tenderer, in which case such corrections shall be initialed by the person or persons signing the Tender.

20.8.9 The envelope shall be addressed to the Employer namely "THE EXECUTIVE ENGINEER, TWAD BOARD, **MAINTENANCE DIVISION, TRICHY**" and bear the following identification

Bid for-Operation and Maintenance of Water Supply Scheme/ **CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District** for a period of 10 Months from 01.06.2022 to 31.03.2023.

INVITATION OF BID No: 2 / F. Outsourcing of CWSSs / JDO / 2022 / dt. 19.05.2022

Do Not Open Before 09.06.2022 (Time and date of bid opening as per
at 3.30 pm Clause 24 of Bid Opening and Evaluation)

and should be submitted to the following Address:

"THE EXECUTIVE ENGINEER, TWAD BOARD, MAINTENANCE DIVISION, INTEGRATED OFFICE COMPLEX, NO.35, J.K. NAGAR, KAJAMALAI (POST),TRICHY – 620 023.

20.8.10 In addition to the Identification required in sub clause above, the envelope shall indicate the name and address of the bidder to enable the bid to be returned in case it is declared late, pursuant to Clause 22 of Submission of Bids.

20.8.11 If the envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

20. Deadline for Submission of the Bids

21.1. Bids must be received by the Employer at the address specified in clause 20.8 above not later than **3.00 PM on 09.06.2022** In the event of the specified date for the submission of bids declared a holiday for the Employer, the bids will be received up to the appointed time on the next working day.

21.2. The Employer may extend the deadline for the submission of bids by issuing amendment in accordance with clause 11 of Bid Documents in which case all rights and obligations of

the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Late Bids

- 22.1. All bids received by the Employer after the deadline prescribed in clause- 21 of Submission of Bid will be returned unopened to the bidder.
- 22.2. TWAD Board will not be held responsible for any Postal/other modes delay leading to delayed submission of Bids after the deadline prescribed.

22. Modification/ Substitution of Bid before opening

- 23.1. No Tenderer shall be allowed to withdraw the tender after submitting the tender.
- 23.2. The Bidder may modify or substitute his bid after submission provided that written notice of the modification and substitution is received by the Employer prior to the Deadline of submission of Bid.
- 23.3. The Bidder's modification or substitution notice shall be prepared, sealed, marked and delivered in accordance with the provision clause – 21 & 22 of "Submission of Bids", with the envelope additionally marked "MODIFICATION" or "SUBSTITUTION" with name of work as appropriate.
- 23.4. Modification / Substitution for Price Bid cover should be super-scribed as "PRICE BID MODIFICATION COVER"/ "PRICE BID SUBSTITUTION COVER" with name of work
- 23.5. Modification / Substitution for Technical Bid cover should be super-scribed as "TECHNICAL BID MODIFICATION COVER"/ "TECHNICAL BID SUBSTITUTION COVER" with name of work
- 23.6. No Bid shall be modified /substituted after the deadline for the submission of Bids.
- 23.7. Modification / Substitution of a Bid between the Deadline for submission of Bids and the expiration of original period of validity specified in the Clause – 16.1 "PREPARATION OF BIDS" or as amended pursuant to the Clause 16.2 "PREPARATION OF BIDS" may result in the forfeiture of the Bid security pursuant to the Clause – 17 "PREPARATION OF BIDS".

F. BID OPENING AND EVALUATION

23. Bid Opening

- 24.1. The Employer will open all the bids received (except those received late) in the presence of the bidders or their representatives who choose to attend on the date at the time in the address specified in clause 21 of-Submission of Bids. (In the event of specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day). Envelopes marked as substitution or modification shall be opened and read out first.
- 24.2. The Bidders' names, the Bid prices, the total amount of each Bid, any discounts, bid modification / substitution, the presence or absence of Bid Security and such other details as the Employer may consider appropriate, will be announced by the Employer at the time of opening. Bids and modifications received pursuant to clause -23 of "Submission of Bids" that are not opened and not read out at the bid opening will not be considered for further evaluation regardless of the circumstances.

24. Process to be Confidential

Information relating to the examination, Clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his bid.

25. Clarification of Bids.

To assist in the examination, evaluation and comparison of bids, the Employer may, at his discretion, ask any Bidder for clarification of his bid, including breakdown of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause-28 of "Bid Opening and Evaluation".

26. Examination of Bids and Determination of Responsiveness

- 27.1. Prior to detailed evaluation of Bids, the Employer will determine whether each Bid
- (a) meets the eligibility criteria set out in clause – 7 “Qualification of the Bidder”,
 - (b) has been properly signed,
 - (c) is accompanied by the required securities and
 - (d) is substantially responsive to the requirements of the Bid Documents,
- 27.2. A substantially responsive Bid is one which conforms to all the terms, conditions and specifications of the Bid Documents, without material deviation or reservation. A material deviation or reservation is one
- 27.2.1 which affects in any substantial way the scope, quality or performance of the works.
 - 27.2.2 which limits in any substantial way, inconsistent with the Bid Documents, the Employer’s rights to the Bidder’s obligations under the contract, or
 - 27.2.3 whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive Bids.
- 27.3. If a Bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non conforming deviation or reservation. The decision of the Employer on the issue whether the Bid is responsive or not will be final and binding on the bidders. The Employer is not bound to disclose the reason in case a bid is determined by him as non-responsive.

27. Correction of Errors

- 28.1. Bids determined to be substantially responsive will be checked by the Employer for any arithmetic error. Errors will be corrected by the Employer as follows:
- If any variation is found in the between words and figures, the lesser of the two will only be taken in to consideration.
- 28.2. The amount stated in the Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount of the Bid, his bid will be rejected and his bid security will be forfeited in accordance with Clause - 17.5 of “Preparation of Bids”.

28. Evaluation and Comparison of Bids

- 29.1. The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause- 27 of-Bid Opening and Evaluation.
- 29.2. In evaluating the Bids, the Employer will determine for each Bid, the evaluated Bid Price by adjusting the Bid price as follows:
 - 29.2.1. Making any correction for errors pursuant to Clause -28 of "Bid Opening and Evaluation".
 - Or
 - 29.2.2. Making appropriate adjustments to refer discounts or other price modifications offered in accordance with Clause -23 of "Submission of Bids"
 - 29.2.3. The Employer reserves the right to accept or reject any variation/deviation.
- 29.3. If the Bid of a successful Bidder is found highly unbalanced in relation to the TWAD Board's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the methods of operation and maintenance of the CWSS and schedule proposed.
- 29.4. After evaluation of the price analysis, the Employer may require that the amount of the Performance Security set forth in Clause - 34 of "Award of Contract" be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.
 - 29.4.1. For tenders received with any plus percentage & up to minus 5 percentage of the Departmental Value, the successful tenderer should remit 2% of contract value as performance security.
 - 29.4.2. For tenders received with minus 5% & up to minus 15% of departmental value the successful tenderer should remit 4% on contract value as performance security.

- 29.4.3. For tenders received with minus 15 % and more of Dept. Value, the successful tenderer should remit 5% of contract value as performance security.

G. AWARD OF CONTRACT

29. Award Criteria.

Subject to Clause 29 of Bid Opening and Evaluation, the Employer will award the contract to the Bidder, whose Bid has been determined to be substantially responsive to the Bid Documents and who has offered the lowest evaluated Bid Price, provided that such Bidder has been determined to be (a) eligible in accordance with the provision of clause-6 of Eligibility / Qualification Criteria and (b) qualified in accordance with the provisions of Clause-7 of Eligibility/ Qualification Criteria.

30. Employer's Right to Accept any Bid and to Reject any or all Bids

The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the Employer's action.

31. Notification of Award

The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by e mail confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the Letter of Acceptance), will state the sum that the Employer will pay to the contractor in consideration of the Operation and maintenance of the works by the Contractor as prescribed by the Contract (hereinafter and in the conditions of Contract called the-Contract Price.) The notification of award will constitute the formation of the Contract.

32. Registration in TWAD

The successful contractor/ firm, if not a registered contractor in Tamil Nadu Water Supply and Drainage Board, he / she/ they should get himself / herself/ themselves registered in TWAD Board, before concluding the agreement

33. Performance Security

34.1. Within 28 days from the date of the Letter of Acceptance, the successful bidder shall deliver to the Employer a Performance Security as detailed below:-

34.1.1. For tenders received with any plus percentage & up to minus 5 percentage of Department Value, the successful tenderer should remit 2 percentage of contract value

34.1.2. For tenders received with minus 5 percentage & up to minus 15 percentage of departmental value the successful tenderer should remit 4 percentage on contract value.

34.2 For tenders received with minus 15 % and more percentage of Department Value, the successful tenderer should remit 5 percentage of contract value.

The Performance security should be in the form of

34.2.1. National Savings Certificate/Post Office Savings Deposit account purchased within the State of Tamil Nadu and pledged in favour of the Executive Engineer, TWAD Board, Maintenance Division, Trichy.

(OR)

34.2.2. Unconditional and irrevocable bank guarantee issued by any one of the branches of Nationalised Bank or scheduled Bank within the State of TamilNadu, provided they are in prescribed format (enclosed in this Document) for an amount equivalent to ----- percentage of the total value of the contract in favour of the Executive Engineer, TWAD Board, Maintenance Division, Trichy.

34.2.3. FDR and deposits at call receipts should contain lien certificate issued by the Bank for encashment by department. The FDR furnished by the firm should also bear the signature of the authorized signatory on a revenue stamp at the back of the FDR.

34.2.4. The bidder along with the performance security, shall deliver a non judicial stamp paper for Rs.100/- (Rupees One Hundred only) at his cost for executing the agreement.

35. Signing of Agreement

- 35.1. The Employer on receipt of the performance security and non-judicial stamp paper, will furnish to the bidder the Agreement in the form prescribed, incorporating all terms and conditions between the Employer and the successful bidder.
- 35.2. The Bidder should remit the performance security prescribed by the Employer in the form as in Clause 34 above and sign the agreement in the presence of the Employer within 28 days from the date of Letter of Acceptance notifying the award of contract.
- 35.3. Upon furnishing the performance security by the successful bidder, the Employer will promptly notify the other bidders that their bids have been unsuccessful.
- 35.4. Failure of the successful bidder to comply with the requirements of Clauses- 34 & 35 and 35.2 of "Award of Contract" shall constitute a breach of contract, cause for annulment of the award, forfeiture of the bid security and any such other remedy the Employer may take under the contract.

Amendment to Agreement:

- 35.5. Any amendment shall be issued by mutual consent between the Employer and the contractor only without any contrary to the bid conditions.
- 35.6. **Such amendment should not lead to change in rates and prices of the successful bidder.**

36. Forfeiture of Performance Security

The performance security is liable to be forfeited in cases where the firm/contractor fails to carry out the work in accordance with the specifications, terms and conditions of the contract leading to termination of the contract.

37. Foreclosure of Works

The Employer shall have the right to issue notice to the contractor, for any reason whatsoever does not require the whole or part of the contract to be carried out after the award of the contract. The contractor shall not have any claim towards compensation or whatsoever, on account of any profit or advantage, which he might have derived from the carrying out of such portion. For the portion already carried out in view of the foreclosure,

the contractor shall be paid an eligible amount as certified by the Engineer in charge.

38. Termination of Contract

The employer may terminate the contract, when it is opposed / contrary to the covenant of the terms of the contract.

The employer shall issue notice of 15 days time to rectify and in the event of failure to rectify / comply the terms of the contract, the contract stands terminated on the 16th day from the date of issue of notice.

On termination of the contract, the employer shall withhold the amount payable to the contractor and the security deposit by the contractor till the amounts due to the Board are recovered.

39. Release of Performance Security

On successful completion of contract for the assigned period and after handing over the entire scheme with all its infrastructures and installations in good and operating condition to TWAD Board, the performance security will be refunded after three months from the date of handing over the scheme.

40. Recovery of money payable to TWAD Board

All losses, costs, damages and expenses and other money payable to the Board by the contractor under any stipulation in the contract, may be retained out of any money due or which may subsequently become due from the Board to the contractor under any contract or otherwise whatsoever and in case such money then due or to become due to the contractor by the Board shall be insufficient to pay such losses, costs, damages, and other money payable to the TWAD Board by the contractor, it shall be lawful for the Engineer in charge without any further consent on the part of the contractor to sell or dispose of any securities deposited in the Board by the contractor as aforesaid and with and out of the proceeds of such sale, after payment of all expenses connected therewith or reimburse and pay to the Board all such losses, cost, damages and expenses and other money payable to the contractor. And in case such proceeds of sale of the said securities shall be insufficient for such purpose then and in that case it shall be lawful for the Board to recover the residue thereof, if necessary by legal proceedings and or by resorting to revenue recovery act against the contractor.

41. TDS on Income Tax

- 41.1. During the course of the contract period, deduction of income tax shall be made at the prevailing rates from every payment as may be specified by the Income Tax Act and as amended from time to time.
- 41.2. **GST** is not applicable for Maintenance Contracts (and) in case of composite contracts where the value of materials involved is less than 25%, as per Government of India Notification No:2/ 2018-Central Tax (rate) New Delhi, 25th January 2018.

42. Mobilization Advance

Mobilization advance will not be provided under this contract

43. Price Adjustment:

Price adjustment is not applicable under this maintenance contract.

44. Dispute

44.1. Dispute Redressal Committee

A) In order to ensure a dispute Redressal mechanism, for tenders of value up to and Rs.1 Crore the Regional Technical Committee will be the " Dispute Redressal Committee" in order to resolve any disputes between the Employer / Engineer – in charge concerned and the contractor and the appeal committee is as in (B).

B) In order to ensure a dispute redressal mechanism, , for tenders of value more than Rs.1 Crore a Committee headed by the Managing Director / Joint Managing Director and consisting of Engineering Director, TWAD Board and Engineering Director, CMWSS Board as Member, will comprise the " Dispute Redressal Committee" in order to resolve any disputes between the Employer / Engineer – in charge concerned and the contractor.

- 44.2. Arbitration: **In view of the above Dispute Redressal Committee, arbitration is not part of this Contract**

44.3. Jurisdiction of Court

In the event of non settlement of any dispute by the Dispute Redressal Committee arising between the parties hereto in respect of any matter comprised in the contract, the same shall be settled by a competent court having jurisdiction over the place where the contract is awarded and agreement is concluded and by no other court.

45. Force Majeure

Neither party shall be liable to the other for any loss or damage caused by or arising out of Acts of God such as unprecedented flood, cyclone, volcanic eruptions, earthquake or other special risks referred above which prevent the performance of the contract and which could not have been foreseen or prevented by the prudent person. If a Force Majeure situation arises, the contractor shall promptly notify the Employer in writing of such condition and the cause thereof, Unless otherwise directed by the Employer in writing, the contractor shall continue to perform the obligations as far as it is reasonably practical and shall seek all reasonable alternative means for performing those not prevented by Force Majeure.

46. In the event of belated settlement of dues to the contractor, the contractor shall not claim interest for the belated payment.

47. The directions of the Hon'ble court in WMP. Nos. 11584 & 10723 of 2022 in WP No. 11128 of 2022 should be implemented scrupulously.

47.1. The wages paid to the labourers should not be less than minimum wages.

47.2. In case the contractor engaged the labourers already worked in the CWSS, the wages already paid to the labourers should not be reduced at any cost.

48. Contractor dying, becoming Insolvent or Insane

In the event of death or insanity of the contractor, the contract may be terminated by notice in writing, pasted at the site and advertised in the issue of the local newspaper. All acceptable works shall thereafter, be paid at appropriate rates after recovering all the contractor's dues to Employer, to the persons entitled to receive and give a discharge for such payments.

In the contractor is imprisoned because insolvent compound with his creditors has a receiving order made against him or carriers on business under receiver for the benefit of the

creditors of any of them or being a corporation goes into liquidation or commences to be wound up not being a voluntary winding up for the purpose only of amalgamation or reconstruction, the employer shall be at liberty.

To give such liquidator, receiver or other persons in whom the contract may become vested the option of carrying out the contract or a portion thereof to be determined by the employer, subject to his providing an appropriate guarantee for the performance of such contractor.

To terminate the contract forthwith by notice in writing to the contractor the liquidator, the receiver or person in whom the contract may become vested and take further actions as provided in the clause pertaining to default by contractor, treating as if this termination is ordered under the respective clause. (This condition may be included)

VI. LIST OF ANNEXURES

Annex No.	Description	Para No.
VI.	List of equipments available with the bidder	7.1.3
VIII.	Sample Format for evidence of access to or availability of credit facilities	7.1.4
IX.	Details of Litigation if any	7.1.5
X.	Declaration by the bidder pertaining to blacklisting / debarment etc.,	7.1.6
XI.	Affidavit as an undertaking given by the Contractor should be certified by the Notary duly stamped on a Notaries Stamp (Annexure-XI)	7.1.10

VII. LIST OF CERTIFICATES

Sl. No.	Description of Certificate	Para No.
1	Signature of the proprietor or proprietress attested by the Notary Public	2.2
2	Signature of all the partners/power of attorney attested by the Notary Public	2.3

Contractor

EXECUTIVE ENGINEER, TWAD

3	Registration of the firm, signature of the authorised person attested by the Notary Public	2.3
4	A copy of the listed power of attorney authorising the signatory of the bidder	7.1.1
5	Proof of registration .	7.1.2
6	Credit line Certificate from Financial institutions	7.1.4
7	Income Tax Clearance Certificate (Latest)	7.1.11
8	Valid GST registration Certificate	7.1.12
9	Certificate of performance issued by not less than the rank of Executive Engineer/Responsible person of the private organisation.	7.2

Annexure VI (Para No 7.1.3)

List of Equipment Available with Bidder

Sl. No.	Equipment Name	Requirement for the project		Availability Status			Remarks
		Nos.	Capacity	Owned/ leased/ be Procured	Nos and To capacity	Age/condition	

Seal of the firm

Signature of the bidder with date

Contractor

EXECUTIVE ENGINEER,TWAD

Value of contract	Qualification and No. of Technical supervisor / Assistant to be employed by the Contractor.
1. Upto Rs. 1.00 lakh	No Technical Assistant need be employed. If situation and nature of work warrants. 1) A Diploma holder in Civil Engineering or 2) A retired Junior Engineer may be employed.
2. From Rs.1.00 lakh to Rs.5.00 lakhs	1) One diploma holder in Civil Engineering or 2) Not less than one retired Junior Engineer.
3. From Rs.5.00 lakhs to Rs.10.00 lakhs	1) One B.E (Civil) Or 2) Equivalent degree holder. Or 3) Not less than one retired AEE/ADE 4) One diploma holder with three years experience.
4. From Rs.10.00 lakhs to Rs.25.00 lakhs	1) One B.E. (Civil) with 3 years experience plus one Diploma holder in Civil Engineering Or 2) Equivalent degree holder with 3 years experience plus one Diploma holder in Civil Engineering Or 3) Not less than one retired AEE/ADE plus one diploma holder in civil Engineering. 4) Two diploma holders in in civil Engineering with 3 and 5 years experience respectively.
5. From Rs.25.00 lakhs to Rs.50.00 lakhs	1) One B.E. (Civil) with 3 years experience plus two Diploma holder in Civil Engineering or 2) One B.E. (Civil) with 3 years experience plus two retired junior Engineers. or 3) Equivalent degree holder with 3 years experience plus two Diploma holder in Civil Engineering / two retired junior Engineers. or 4) One retired AEE or ADE plus two diploma holders in Civil engg. or 5) One retired AEE or ADE plus two retired Junior Engineers.
6) Above Rs.50 lakhs	(To be examined in individual cases depending upon the nature of work and the technical skill involved and defined in the tender notice regarding the No. of qualified technical personal to be employed by the contractor.
7) Penalty	The rate for failure on the part of the contractors to employ technical assistant 1) For Diploma holder - Rs 2000/- per month 2) For Degree holder - Rs 5000/- per month

ANNEXURE VIII (Para No 7.1.4)

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT
FACILITIES – CLAUSE 7.1.4**

(To be furnished in the Letter Head of Bank)

BANK CERTIFICATE

This is to certify that M/s..... is a reputed
company with a good financial standing.

If the contract for the work, namely..... is awarded to the
above firm, we shall be able to provide overdraft/ credit facilities to the extent of
Rs..... to meet their working capital requirements for executing the above contract.

Signature of the Authorised Officer of the Bank.

Date:

Seal

of

the

Bank.

ANNEXURE IX (Para No 7.1.5)**Details of Litigation, if any.**

Sl. No	Name of the Govt. Dept./Private Organisation(Other party)	Cause of the litigation	Amount involved (Rs. In lakhs)	Award for (or) against bidder	Remarks / present stage

Note: Should be attested by the Notary Public.

Seal of the firm

Signature of the bidder with date

ANNEXURE X (Para No 7.1.6)

Declaration by the Bidder:

It is to certify that our firm.....

.....has **not** been black listed / banned / debarred by any
Central/ State / UT Government Department or Undertaking /Organization.

Seal

.....

.....

(Signature of the Bidder)

ANNEXURE-XI (Para No 7.1.10)

(Affidavit as an undertaking given by the Contractor should be certified by the Notary duly stamped on a Notaries Stamp)

Model

(to be typed in Rs 100 Non-Judicial Stamp Paper)

AFFIDAVIT OF _____ (Name of Contractor).

I/We _____ (Name of Contractor) Son of (Hindu) aged about years, Partner/Proprietor/Authorised signatory of ----- having our office at no..... do hereby solemnly affirm and sincerely states as follows:-

I /We state that We have entered in to Operation and Maintenance of WSS/CWSS contract with TWAD Board on date.

I/We state that I/We will be the Principal Employer as referred in the labour laws in respect of any operating staff / work person engaged for the purpose of delivery of services under this contract.

I/We state that there will not be any employer and employee relationship between TWAD Board and the workmen employed by us. We will take all responsibilities relating to present Labour Laws with regard to our employees.

I/We state that the workers employed by us in connection with performance of this contract will not claim any right of employment with TWAD Board.

I/We state that this Affidavit can be used as a Document before any Court of Law or Tribunal to defend the TWAD Board.

Solemnly affirm and signed by me on this day of 2022

DEPONENT

BEFORE ME

NOTARY PUBLIC

GENERAL CONDITIONS OF CONTRACT

TABLE OF CONTENTS

S. No	Contents	Page no
1	PART – I- Role and Responsibilities of the Contractor	
2	PART – II- Payment mode for Contractor	
3	PART – III- Role of the TWAD board	
4	PART – IV-Labour laws and procedure adopted	
5	PART – V- Special conditions	
6	PART – VI- List of beneficiaries and earmarked quantity of water to be supplied	

PART I**ROLES AND RESPONSIBILITIES OF THE CONTRACTOR**

S.No	Contents	Page no
1.1	Interpretation of terminologies	
1.2	Responsibilities of the Contractor regarding operation and maintenance of the scheme.	
1.3	List of equipments, installations, structures, pipelines, appurtenances etc., to be maintained	
1.4	Schedule of Maintenance	
1.5	Equipment and Tools to be made available at each Pumping Station	
1.6	Safety Measures to be adhered	
1.7	Specifications for repairs to Electro Mechanical equipments and for attending Leaks and burst in pipelines.	
1.8	Formats for Registers to be maintained by the contractor at Site	
1.9	Uploading of data in Online Entry Formats in http://117.236.90.36/Maint-Projects/frmLeakBurst.aspx ,	

1.1. INTERPRETATION OF TERMINOLOGIES

- 1.1.1. In these conditions of contract the following definitions shall apply:
- 1.1.2. The *Tender inviting authority* and *Tender Accepting Authority* means the Executive Engineer, Superintending Engineer/ Chief Engineer of Tamil Nadu Water Supply and Drainage Board
- 1.1.3. The *Implementing authority/ Department* means the Executive Engineer, Superintending Engineer/ Chief Engineer of Tamil Nadu Water Supply and Drainage Board
- 1.1.4. The *contract* means the agreement concluded between the authority and the contractor, including all specifications, patterns, contractor's samples, plans, drawings and other documents incorporated or referred to there in.
- 1.1.5. The *contractor* means the person/agency who have been awarded the work and undertakes the Operation and maintenance of the CWSS.
- 1.1.6. The *contract price* means the price mentioned in the price schedule of the agreement for the respective items of works carried out, that is payable to the contractor by the authority under the contract for the full and proper performance by the contractor or its part of the contract.
- 1.1.7. The *work* means the work of supplying earmarked quantity of water to all the beneficiaries covered under the scope of the project, attending leaks/ bursts occurred during the maintenance period, attending repair works on the goods and equipments that the contractor is required to provide under the contract to establish the above mentioned service.
- 1.1.8. *MLD* is Million litres per day which equals 10,00,000 litres in one day.

1.2. Responsibilities of the Contractor regarding O&M of this Scheme.

- 1.2.1. A joint inspection to be conducted by the Contractor with TWAD Board Officials before taking over of the CWSS for maintenance.

- 1.2.2. The Contractor should take over the scheme after award of work for maintenance and handover the scheme in good condition, on completion of agreement period.
- 1.2.3. Before taking over the CWSS/WSS, inspect the Alignment and to check presence of any illegal connections (any connections other than the scope of the project) in the alignment during takeover of the scheme for maintenance. **If any illegal connection found during the course of taking over, the same shall be removed at the cost of TWAD Board.**
- 1.2.4. After taking over of the CWSS for maintenance, the Contractor is the custodian of the CWSS.
- 1.2.5. After taking over the scheme by the contractor, for any damages to the components of the CWSS made by men, machinery, etc., the contractor is solely responsible for rectification at his own risk and cost, except for damages caused by other line departments under the Government of Tamil Nadu, National Highways and NHAI.
- 1.2.6. Damages caused to the underground utilities by the contractor during rectification is to be rectified by the contractor under own risk and cost.
- 1.2.7. After taking over the scheme by the contractor if any illegal connection found, it should be reported immediately to the AE/AEE so as to file the FIR by the Department early. However, the Contractor should take immediate action to remove such Illegal connections at his risk and cost only. Continual illegal Tapping/Connection will lead to cancellation of agreement, as the maintenance of Pipeline is the sole responsibility of the contractor.
- 1.2.8. The CWSS taken over by the contractor is only for maintaining the scheme and to supply the earmarked quantity to all the beneficiaries. The contractor should not make any alterations in the CWSS / supplying water to any other beneficiaries/ supplying water through any other mode without the approval of the Executive engineer incharge of the CWSS in writing.

- 1.2.9. Ensure that the water is supplied to all beneficiaries covered under the project as per the earmarked quantity on normal condition.
- 1.2.10. Under all the circumstances, the supply to all beneficiaries including Tail end ~~/critical~~ habitations shall be ensured as per the PART –VI of the GCC.
- 1.2.11. Should inform every day before 08.00 AM about the pumping status of the scheme from 06.00 AM of previous day to 06.00 AM of present day to the AE/AEE through WhatsApp and through online entry as per the prescribed format (beneficiary supply details).
- 1.2.12. If Diesel Generator (DG) is available in the scope of contract it should be maintained in working condition. Test run of Genset should be carried out for a minimum of 30 minutes per week while in idle condition or as recommended by the manufacturer / directed by TWAD Engineer. The contractor should make necessary arrangement for Diesel / Lube oil required for operating the generator and the related cost will be reimbursed as per actual on production of original bills.
- 1.2.13. In case of failure of electricity during emergency / calamity, the contractor shall take immediate action to restore the electricity by approaching the TANGEDCO authorities. In case of non availability of generators, the Contractor shall engage generators for pumping the Earmarked quantity (MLD) as and when required under approval of the Executive Engineer and the hire charges will be paid as per the rate approved for this case.
- 1.2.14. The contractor shall submit the operating methodology to carryout in full this contract as per the prevailing guidelines, CPHEEO guidelines and got it approved by the Engineer in charge. The Operating Staff should have the required minimum qualification as the case may be as Electrician with-C-Certificate, Electrician-grade II, Fitter grade II, Maintenance Assistant, filter bed operator, turncock, watchman as per the requirement of works to be performed. All shall read and write.
- 1.2.15. Must keep a copy of the relevant portions of the latest CPHEEO manual on Operation and Maintenance of Water Supply Systems at work site and

carry out the O&M works in accordance to the guidelines prescribed in the Manual.

- 1.2.16. The Quantity of water supplied to the beneficiaries is the essence of contract, and the contractor is solely responsible for the supplied quantity. The contractor should ensure earmarked quantity (MLD) of supply to all the beneficiaries as per the scope. Contractor should maintain and furnish register showing the quantity of water delivered to each habitations duly signed by Panchayat Secretary/ Panchayat President of the local body concerned or a person authorized by the Panchayat President and submitted to the Assistant Engineer for preparing the water charges demand by 26th of every month (from 26th of the previous month to 25th of current month)..
- 1.2.17. The Contractor should maintain Pumping quantity register, pump set operation register, Leak & burst register, Consumables register, Electro mechanical repair register, preventive maintenance register, water retaining structure cleaning register, pumpset panel boards repair register, valves inspection and rectification register etc. and the same shall be maintained and signed by the contractor/authorized person and the same shall be furnished during the inspection of TWAD Board Officer. The format for maintaining the above registers shall be got approved from the Executive Engineer in charge.
- 1.2.18. The Contractor should obtain the invoice / bill for electricity consumed and handover to the Assistant Engineer / Assistant Executive Engineer for onward submission for making payment and the contractor should make arrangements to submission of Cheque / Demand Draft to Electricity Board office without delay.
- 1.2.19. All the repair works whenever it occurs in the pumping machineries, Electro-mechanical items should be attended immediately under intimation to TWAD Board Engineers as all the works are included in the essence of contract.
- 1.2.20. The contractor should attend the Leaks and Bursts whenever it occurs, within the stipulated period, and necessary photos shall be taken before

during and after attending the works with latitude / longitude and the same must be uploaded online in the link <http://117.236.90.36/Maint-Projects/frmLeakBurst.aspx>, through the Assistant Engineer/Assistant Executive Engineer concerned.

- 1.2.21. For attending the leaks/ burst, the contractor shall procure the minimum quantity of materials and keep advance stock which may require to attend all types of maintenance works at the earliest.
- 1.2.22. All the tools and equipments required for this contract shall be arranged by the Contractor at his own expense.
- 1.2.23. Contractor shall maintain the water meters in good working condition. The Quantity pumped will be ascertained based on water meter reading only. However in special circumstances if the water meter is not functioning / available, the supply quantity will be checked using portable flow meter provided by the contractor.
- 1.2.24. Operate and maintain capacitor and allied switch gear so as to maintain a power factor of not less than 0.90 and as prescribed by TANGEDCO.
- 1.2.25. The power factor will not decrease or increase suddenly and hence the contractor should monitor it daily. If any decrease in the power factor is noticed, it should be informed to the Departmental Engineers (concerned Assistant Engineer/Assistant Executive Engineer) and rectification to be carried out by the contractor which will be paid for as per the agreement. Any penalty levied by TANGEDCO for non-maintenance of power factor, will be recovered from the Contractor.
- 1.2.26. Mandatory Regulations prescribed by CEIG and Inspector of Factories shall be followed without any lapse.
- 1.2.27. To maintain periodically plant and machineries, pump room and it's premises, Pumping main and valves and Treatment Units etc. as per the list detailed in clause 1.3 and as per the Schedule of Maintenance detailed in clause 1.4 of General Conditions of Contract.
- 1.2.28. Each station should be provided with complete set of tools and equipments required for maintenance as listed in the clause 1.5 of GCC.

- 1.2.29. To adhere to safety measures as stipulated in clause 1.6 of GCC.
- 1.2.30. Recording Register including starting/stopping time of the pump sets etc as per standard format.
- 1.2.31. Checking the temperature/Noise of Running units and control panel
- 1.2.32. To Provide gland packing for the pumps, sluice valve etc. whenever required to avoid leakage of water.
- 1.2.33. The Contractor shall report any problem in the motor and pumps, electrical main boards and fixtures etc, leaks and burst if any occurred in the pipe line, leaks and repairs in valves and any other damages caused to the water supply system, shall be brought to the notice of the Assistant Engineer/ Assistant Executive Engineer, immediately and take immediate action for the rectification and restoration of water supply within the prescribed time limit. Necessary entries shall be made in the corresponding register.
- 1.2.34. Any alternation/additions if needed to the existing arrangements, both in electrical and mechanical installations shall be attended only after proper approval from the Executive Engineer.
- 1.2.35. The contractor shall obtain the license from the competent authority of Labour Department in the respective District.
- 1.2.36. The contractor shall provide Technical Supervisor with minimum technical qualification of Diploma/Degree in Civil/Electrical/Mechanical Engineering as per the value of work mentioned under Annexure – VII.
- 1.2.37. The Contractor should also provide photo identity card to his own labour mentioning the name and category along with the name of the Contractor without mentioning the TWAD Board name and Logo, etc,.
- 1.2.38. If any labour is found to be unfit or disobedient to the instructions given by the TWAD Board officers, they shall be replaced by the contractor immediately.
- 1.2.39. The contractor shall provide required safety equipments to the labours engaged by him.
- 1.2.40. Operation on specified shifts / day as per labour law and ensuring that

back up teams are available to take over during Sundays, Public Holidays and in the event of regular Operator's absence including watch and ward.

- 1.2.41. Operate and maintain pumping equipment with skilled staff with required qualifications and experience so as to safeguard the equipments against single phasing, earth fault, phase reverse etc., in power supply as well as their personal safety.
- 1.2.42. The contractors shall be fully responsible for operating and maintaining the scheme in a safe & secure manner.
- 1.2.43. The contractor shall obey all the provisions of various laws including Labour Laws as applicable to them. If the Board suffer any loss what so ever of nature, monetary or otherwise, as a result of direct or indirect action or inaction of the contractor in failing to comply with or not properly complying with any law, rules, regulations, notifications, instructions, circulars, G.Os, Board Proceedings, etc. issued by the Government or Board or any other authority as applicable to them as mandated by the law or otherwise, the said laws shall be computed in terms of money and recovered from the contractor.
- 1.2.44. Temporary Diversion of Roads and Commencement of Work.
 - 1.2.44.1. During attending leaks, burst and any other repair works, the contractor/firm shall make at his cost all necessary provision for the temporary diversion of roads, car tracks, footpaths, drains, water courses, channels etc.,
 - 1.2.44.2. If the contractor/firm fail to do these arrangements, the same shall be done by the Engineer in charge and the cost thereof shall be recovered from the contractor/firm.
- 1.2.45. Notice to Telephone, Railway and Electric Supply Undertaking.
During attending leaks, burst and any other repair works, the Contractor / firm shall give all prior notices through Assistant Engineer/ Assistant executive Engineer required by any law or custom or as directed by the Engineer in charge, to other departments, who may be affected, prior to commencement of the works.
- 1.2.46. Watching and Lighting

The Contractor/firm shall at his expense, shall provide at the site of works sufficient fencing, barricading, watching and lighting during day and night. The contractor/firm shall in every respect conform to the police regulations in these matters, for which the Board will not take any responsibility. If the contractor/firm fail/neglect to do these arrangements, the same shall be carried out by the Engineer in charge and the costs thereof shall be recovered from the contractor/firm and prevent entry of unauthorized persons

1.2.47. Risk Insurance

TWAD shall not be liable for risks of loss or damage to any belongings and of personal injury and death to the persons employed by the contractor for this work and the public if any during the contract period. Copy of such insurance shall be produced to the Executive Engineer.

1.3 List of equipments, installations, structures, pipelines, appurtenances etc., to be operated and maintained under this contract.

VIDE ANNEXURE - II

1.4 Schedule of Maintenance

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
1	Pump House:				
1.1	Cleaning of site	<input type="checkbox"/>			
1.2	Cleaning of Pump House including Doors and Windows	<input type="checkbox"/>			
1.3	Cleaning of Panel Room, D.G. room etc.	<input type="checkbox"/>			
1.4	Check pump is operational	<input type="checkbox"/>			
1.5	Change over to stand bye pumps	<input type="checkbox"/>			
1.6	Record hours run	<input type="checkbox"/>			
1.7	Check operation of air release pipe	<input type="checkbox"/>			
1.8	Lubricating of Rolling Shutters			<input type="checkbox"/>	
1.9	De-weeding of Pump Room premises and removal of cob webs etc in the Pump Room.				<input type="checkbox"/>

Contractor

EXECUTIVE ENGINEER,TWAD

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
2	H.T.Structure, Transformer yard and Transformers:				
2.1	Cleaning of transformer yard, removal of grass and plants	<input type="checkbox"/>			
2.2	Check up and water the earth pits		<input type="checkbox"/>		
2.3	Megger - earth resistance check in the earth pits				<input type="checkbox"/>
2.4	Check and operate the AB switch in the structure for its smooth operation and replace contacts if necessary		<input type="checkbox"/>		
2.5	Check up dropout fuses and H.G. fuses and replace if necessary	<input type="checkbox"/>			
2.6	Check up insulators and lightning arrestor in the structure and replace if necessary			<input type="checkbox"/>	
2.7	Check the transformer for any leakage of oil and top up if necessary		<input type="checkbox"/>		
2.8	Check the temperature of transformer oil from dial thermometer and record		<input type="checkbox"/>		
3	H.T. Panel:				
3.1	Clean the panel externally and internally using blower	<input type="checkbox"/>			
3.2	Carryout visual check of observe over all condition of the breakers and clean the breakers thoroughly	<input type="checkbox"/>			
3.3	Grease/Oil joints and sliding surfaces			<input type="checkbox"/>	
3.4	Check the internal connections			<input type="checkbox"/>	
3.5	Check the operations of doors and conditions of door gasket			<input type="checkbox"/>	
3.6	Check Volt Meter, Ammeter etc. in the panel for its working and replace if necessary	<input type="checkbox"/>			
3.7	Check all the indicator lamp and control fuses and replace if necessary	<input type="checkbox"/>			
3.8	Check the operation of relays			<input type="checkbox"/>	

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
4	LT Panel :				
4.1	Clean the panel externally and internally using blower	<input type="checkbox"/>			
4.2	Check all the connections for tightness			<input type="checkbox"/>	
4.3	Check the contacts switches for tightness and apply petroleum jelly if necessary			<input type="checkbox"/>	
4.4	Check Volt Meter Ammeter and respective P.T. and CTS for its working and connection	<input type="checkbox"/>			
4.5	Check all the indicator lamp bulbs and fuses and replace if necessary		<input type="checkbox"/>		
4.6	Check operation of all switches and bush buttons		<input type="checkbox"/>		
5	CAPACITORS:				
5.1	Check all the capacitors for oil leakage if any	<input type="checkbox"/>			
5.2	Clean the insulator with dry cloth and check the connections for tightness			<input type="checkbox"/>	
5.3	Check the fuses and meggar the units?	<input type="checkbox"/>			
6	MOTORS:				
6.1	Clean the motor terminal box, check the cable connection to tightness	<input type="checkbox"/>			
6.2	Check body of the motor for firm connection			<input type="checkbox"/>	
6.3	Check the foundation bolt and nut for tightness	<input type="checkbox"/>			
6.4	Check normal sound and vibration	<input type="checkbox"/>			
6.5	Check the bearing grease and replace if necessary				<input type="checkbox"/>
6.6	Check air cooling fan for vibration and noise				<input type="checkbox"/>
6.7	Check meggar test for windings and earth				<input type="checkbox"/>
6.8	Cleaning of motor slipring, carbon brush, contacts and replace if necessary		<input type="checkbox"/>		

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
7.0	STARTERS AND OCB				
7.1	Clean the starter and check up the cable connection	<input type="checkbox"/>			
7.2	Check contacts and replace if necessary		<input type="checkbox"/>		
7.3	Check for cable connection		<input type="checkbox"/>		
7.4	Check for OLR and No volt coil		<input type="checkbox"/>		
7.5	Check the level of transformer oil in the OCB and top up if necessary			<input type="checkbox"/>	
8.0	MAIN PUMPS				
8.1	Outside Cleaning	<input type="checkbox"/>			
8.2	Check Bearing Temperature	<input type="checkbox"/>			
8.3	Check & Top up Bearing grease or replace grease		<input type="checkbox"/>		
8.4	Check gland for leak and add gland layer if required	<input type="checkbox"/>			
8.5	Replace gland packing completely				<input type="checkbox"/>
8.6	Check foundation nuts and bolts for tightness and rusting		<input type="checkbox"/>		
8.7	Check inspection covers and check condition of impeller				<input type="checkbox"/>
8.8	Check the pressure and pressure gauges on suction and delivery side	<input type="checkbox"/>			
8.9	Clean the pump pit and pump floor	<input type="checkbox"/>			
8.10	Check for coupling Bolts and nuts, coupling tyre and replace the tyre if required		<input type="checkbox"/>		
8.11	Check for vibration and noise of the pump	<input type="checkbox"/>			
8.12	Pump out leaked water from the pump pit	<input type="checkbox"/>			
8.13	Check the condition of bearing oil and replace if required			<input type="checkbox"/>	

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
9	SUMP PUMP				
9.1	Check the pump for operation	<input type="checkbox"/>			
9.2	Check the coupling and replace if necessary			<input type="checkbox"/>	
9.3	Clean the starter panel externally and internally	<input type="checkbox"/>			
9.4	Check the fuses and contacts, apply petroleum jelly if necessary		<input type="checkbox"/>		
9.5	Check the foot valve and replace if necessary	<input type="checkbox"/>			
10	Diesel Generator Set, Battery and Emergency light:				
10.1	Clean the Battery, top up, distilled water in the battery if necessary	<input type="checkbox"/>			
10.2	Remove the connection of battery terminals, clean thoroughly and reconnect after applying petroleum jelly		<input type="checkbox"/>		
10.3	Clean the emergency lights internally and externally	<input type="checkbox"/>			
10.4	Check the light, indicator lamp for its proper working and attend if necessary		<input type="checkbox"/>		
10.5	Check fuel level in the diesel tank of DG set and top up if necessary		<input type="checkbox"/>		
10.6	Check engine oil level in the D.G. set and add if necessary			<input type="checkbox"/>	<input type="checkbox"/>
11	OHT CRANES:				
11.1	Carry out thorough cleaning of crane including girders, trolley, platform other equipments and control panels			<input type="checkbox"/>	
11.2	Check all the cable connections for tightness		<input type="checkbox"/>		
11.3	Check contacts and fuses and replace if necessary		<input type="checkbox"/>		
11.4	Inspect gearbox for any leakage of oil				<input type="checkbox"/>

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
11.5	Check the connection of limit switch				<input type="checkbox"/>
11.6	Check panels internally and externally and apply petroleum jelly if required				<input type="checkbox"/>
11.7	Check the rope and apply grease if required				<input type="checkbox"/>
12	SUCTION & DELIVERY VALVES AND ACTUATOR:				
12.1	Check the condition of gland packing and tighten or replace if necessary	<input type="checkbox"/>			
12.2	Check actuator gear box for leakage		<input type="checkbox"/>		
12.3	Check the condition of limit switches			<input type="checkbox"/>	
12.4	Check the condition of oil and grease, replace if necessary			<input type="checkbox"/>	
12.5	Check the bolts and nuts for tightness			<input type="checkbox"/>	
12.6	Check cable terminals at motor terminal box of actuator			<input type="checkbox"/>	
12.7	Check clutch and gear arrangement for manual operation				<input type="checkbox"/>
12.8	Apply grease to the spindle if necessary			<input type="checkbox"/>	
12.9	Check for free movement			<input type="checkbox"/>	
13	<i>PIPELINE:</i>				
13.1	Check the pumping main, branch pumping main, feeder main for any leak /burst /damage	<input type="checkbox"/>			
14.0	VALVES:				
14.1	Check the operation of non-return valve	<input type="checkbox"/>			
14.2	Check the disc for its smooth opening and closing operation		<input type="checkbox"/>		
14.3	Check the sluice valves	<input type="checkbox"/>			

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
14.4	Check the air valves	<input type="checkbox"/>			
14.5	Check the scour valves				<input type="checkbox"/>
15	<i>SUMP:</i>				
15.1	Check the cleaning				<input type="checkbox"/>

1.5 Equipments and tools to be made available at each pumping station

Sl. No.	Description	Set/no.
1	Ultrasonic Flow detector	1 set
2	Double end spanner (6 mm to 32 mm)	1 set
3	Screw driver (6", 8", 12")	1 set
4	Pipe wrench (14", 18", 24")	1 set
5	Cutting pliers	1 set
6	Long nose pliers	1 no.
7	Hammer (2 Kgs)	1 no.
8	Test lamp with 15m wire	1 no.
9	Megger (1000 V)	1 no.
10	Multimeter	1 no.
11	Tong tester	1 no.
12	Hacksaw frame with 3 nos. blade	1 no.
13	Spade (Manwetty)	2 nos.
14	Crow bar	1 no.
15	Sickles	2 nos.
16	Ring spanner (6mm to 32mm)	1 set
17	Caution Board (Men at work)	1 no.
18	Grass cutter	1 no.
19	Country knife	2 nos.
20	Iron chutty	2 nos.
21	Grease gun	1 no.
22	Wheel barrow	1 nos.
23	Torch light with 3 cells	2 nos.
24	Hand blower	1nos.

1.6 SAFETY MEASURES TO BE ADHERED:

- 1.6.1 All electrical safety equipments like hand gloves, testers and other electrical needs are to be provided by the contractor in the Pumping Stations as stated below:

Sl. No	Name of Equipment	For	
		HT Supply	LT Supply
1	Safety belt with rope	2 nos	1 no.
2	Gas Mask	1 no.	1 no.
3	Shock proof hand gloves (11 KV grade gloves)	1 pair	1 pair
4	Disposable hand gloves	2 pairs	2 pairs
5	Gum boot	2 pairs	1pair
6	Electrical line tester	1 no.	1 no.
7	Earth discharge rod	1 no.	1 no-
8	First Aid Box	1 no.	1 no.
9	Emergency light	1 no.	1 no.
10	Fire Extinguisher	2no.	1no.
11.	Rubber Mat of suitable size	as per requirement	

Note: The above is only an illustrative minimum list. The contractor must note that it is their responsibility to ensure the lives and safety of the workers employed by them. The premises should be maintained as per CEIG norms and requirements. If any failure/ Penalty due to non adherence of CEIG norms will have to be borne by the contractor. Towards this end, all the equipments of appropriate specifications should be procured and made available to the workers in usable conditions throughout the period of contract. Responsibility for any health problem or death will solely rest with contractor.

- 1.6.2 Only experienced, skilled people have to be employed by the contractor.
- 1.6.3 Safety belts, ropes, Gas mask, Torch lights, are to be provided by the contractor for laborers who get into wells.
- 1.6.4 All personnel shall be covered by insurance under workmen compensation Act.
- 1.6.5 All labour act provisions has to be met with.
- 1.6.6 Exhibit labels of "SAFETY FIRST"
- 1.6.7 First Aid Box should made available within the reach of the staff in all Pump Rooms and Booster Stations.
- 1.6.8 No medicine beyond the expiry date should be kept in the first aid box
- 1.6.9 First Aid Chart should be displayed in the Pump Rooms.

1.7 Specifications for repairs to Electro Mechanical equipments and for attending Leaks and burst in pipelines.

1.7.1 Detailed Specification for repair works

a) Rectification of Leaks / bursts in pipelines

Attending Leaks in the pipelines of this CWSS as per the standard procedure including earthwork excavation, dewatering, removing, relaying, jointing, civil works, cost of materials and all other incidental charges etc. complete with in the stipulated time limit as specified in clause 2.2.5 of General conditions of Contract-Part II.

b) Rewinding of Motors /Repairs and reconditioning of Pump sets / Repairs and reconditioning of Panel Boards / Sluice valves and Airvalves

Repair works in pumping station in the Electro-mechanical items to bring back the scheme / components into normal running condition as per standard specification including all labour charges, cost of materials and all incidental charges within the stipulated time limit etc., complete as specified in Clause 2.2.6 of General conditions of Contract Part II etc as directed by TWAD Board officers

c) Other items of works. (Sump cleaning)

Cleaning of all storage points like sumps, stand posts of various capacities available in this scheme at a frequency of once in two months including scrapping the inner side of compartment completely, dewatering, desilting using required machineries , materials , labour, all incidental charges , application of bleaching powder/ solution etc complete and as directed by TWAD Board officers

1.7.2 Payment for repair and rectification works:

The payment shall be made as per the rate quoted by the Contractor in the price schedule for each items of works as specified. As per the actual condition, during repairs and rectification works, If any material / work is omitted as not necessary, then the amount of such items shall be deducted based on the rate / cost in the sanctioned estimate along with tender premium.

1.7.3 Payment for supply, delivery and utilization of consumables

The items mentioned under the supply and delivery of consumables for various category of works shall be paid as per the rate quoted in the bid. These consumables are to be utilised during regular O&M works, preventive maintenance and attending minor repairs and shall be carried out by the operating staff and no additional payment will be made.

1.8. **Formats for Registers to be maintained by the contractor at Site**

1.8.1 Leak/ bursts Register

Sl. No.	LS/Location at which leak/ burst occurred	Reasons	Whether repeated occurrence or not	Size of main	Date of occurrence of leak/ burst	Date and Time of Information to the Assistant Engineer concerned	Date of inspection Field Engineer	Instruction issued	Date of rectification		Materials used for rectification
									Start	Finish	
1	2	3	4	5	6	7	8	9	10	11	12

1.8.2 Pump Set, Panel Boards Repair Register

Sl. No.	Location and Details of Pump set	Type of repair and reasons	Whether repeated occurrence or not	Date of occurrence of Repair	Date and Time of Information to the Assistant Engineer concerned	Date of inspection Field Engineer	Instruction issued	Date of rectification		Materials used for rectification
								Start	Finish	
1	2	3	4	5	6	7	8	9	10	11

1.8.3 Valves inspection and rectification Register

Sl. No.	No. of sluice valves/ Air valves/ scour valves inspected	No. of minor leak in valves	No. of minor leaks attended	No. of gland packing/ applying grease in valves	No. of defective valves still to be attended
1	2	3	4	5	6
1					

1.8.4 Log Book Formats for Pump set operations, Genset Operation, etc

LOCATION:

LOG BOOK FOR THE MONTH OF

Lpm x m head (HP)

தேதி Date	டிஸ்ட்ரிப்யூட் பார்மர் நம்பர் Transformer Unit No. & Tap No.	வோல்ட் மீட்டர் Voltage in Volts	பம்ப்செட் நம்பர் Pumpset Unit No.	ஆரம்ப நேரம் Starting Time	முடிவு நேரம் Closing Time	மொத்த நேரம் Total Hours Run	அம்மீட்டர் Load Current in Amps	அழுத்தமானி Kg/Cm2 Pressure Gauge Reading in Kg/Cm2
1	2	3	4	5	6	7	8	9

Multiplying Factor for Energy			மொத்தம் யூனிட் Total Energy Consumed	பவர் பேக்டர் Power Factor Reading	Multiplying Factor for Water Meter			நீர் மொத்த அளவு Total Quantity Pumped	குறிப்பு
எனர்ஜி மீட்டர் Energy Meter Reading					நீரளவை Water Meter Reading				
ஆரம்பம் Initial	முடிவு Final	Diff			ஆரம்பம் Initial	முடிவு Final	Diff		
10	11	12	13	14	15	16	17	18	19

Contractor

EXECUTIVE ENGINEER,TWAD

1.9. Uploading of data in Online Entry Formats in <http://117.236.90.36/Maint-Projects/frmLeakBurst.aspx>, 1.9.1 Online Entry Format for Leak and Burst Details

Sl no	Leak ID	Project	Reach	Location	Date of Leak/Burst	Latitude	Longitude	Pipe Material	Diameter (mm)	Class of Pipe	Reason	Remarks

1.9.2. Online Entry Format For Pump set Repair

SL NO	Component	Location of Pump set	Pump set Type	Main /Stand bye	Discharge in LPM	Head in M	HP OF PUMPSET	Erection Year	Pump set Serial No. (As Mentioned in Name Plate)	Reason for Pump set Repair	Component of Pump set / Panel Board / Cable under Repair	Date of Repair occurred	Date of repair rectified and erected	Remarks

1.9.3. Other formats prescribed during contract period, such as

Pumping quantity register

Pumpset operation register

Consumables register

Electro mechanical repair register

Preventive maintenance register

Water retaining structure cleaning register

shall have to be maintained by the Contractor and carry out the online entry for such formats also.

PART II

PAYMENT MODE FOR THE CONTRACTOR

S.no	Contents	Page no
2.1.	Measurement and Bill	
2.2.	Quantification of value of work done and Penalty	
2.3.	Payment for the value of work	

2.1. Measurement and Bill:

The payment to the contractor will be made based on the following basis.

2.1.1 Measurement:

2.1.1.1. The Measurement shall be recorded by the Assistant Engineer based on the works carried out every month as per the BOQ. The Contract shall produce all relevant documents, registers, invoices, vouchers as the case may be for recording measurements.

2.1.1.2. The details to be uploaded online in the link <http://117.236.90.36/Maint-Projects/frmMain.aspx>, shall be completed by the Contractor, through the Assistant Engineer concerned, which will be one of the precondition for recording of measurements.

2.1.2 Bill Submission:

2.1.2.1 The contractor shall submit the O & M bills once in a month with proper records enclosed i.e., Pumping quantity register, ESI, EPF payment details, Leak & burst register, Consumables register, Electro mechanical repair register and sump cleaning etc .

2.1.2.2. Based on the bill submitted by the Contractor the Assistant Engineer shall prepare and submit the bills in relevant forms after deducting any penalty imposed towards the work as the case may be.

2.2 Quantification of value of work done:

- 2.2.1. The quantity of water drawn/supplied will be calculated monthly, based on the quantity of water supplied daily.
- 2.2.2. The contractor will not be penalised for the lesser quantity of water supplied to the beneficiaries on the following reasons, which should be approved by the Engineer / Employer.
- a) Non availability of power supply for more than 6 hours in respect of 18 hours designed pumping and 12 hours in respect of 12 hours designed pumping or in the case of staggered power supply for the above mentioned designed pumping hours.
 - b) Any leak or burst when attended and water supply is restored within the stipulated time frame mentioned in clause 2.2.5
 - c) When the availability of water at the drawal or first tapping point of this contract package is less than the earmarked quantity.
 - d) Shifting and replacement of pipeline due to development activities of other departments.
 - e) Any Force Majeure situation such as riots, War, Earthquake, Land slide, Cloud Burst etc., which leads to non operating condition of the equipments.
- 2.2.3. If the contractor fails to effect the supply of earmarked quantity of water to the beneficiaries under the scope of this contract, unless and otherwise due the reasons mentioned in clause 2.2.2, then 90% of the payments will be made proportionately (Initial, Intermediate and Tail End beneficiaries as finalised by the Executive Engineer as below:

“Bill Claim Amount for supply based portion of BOQ / Agreement =

$90\% \times (\text{BOQ or Agreement value for the reaches concerned} \times ((\text{served Quantity in KL}) / (\text{Earmarked Quantity in KL})))$ ”.

2.2.4 If the contractor fails to carry out the Preventive maintenance as per the Schedule of Maintenance listed in the Clause 1.4 of GCC then the payment will be deducted as below as the case may be:

(i) Daily scheduled activities not done fully : (10 %)

(ii) Weekly scheduled activities not done fully : (5 %)

(iii) Fortnightly scheduled activities not done fully : (2.5 %)

(iv) Monthly scheduled activities not done fully : (2.5 %)

Total : (20 %)

The following formula will be adopted for making payment to each of the above four category in case of failure in schedule of Maintenance in that category:

"Bill Claim Amount for supply based portion of BOQ / Agreement =

$90\% \times (\text{BOQ or Agreement value for the schedule of Maintenance as per clause 1.4}) \times ((\% \text{ of schedule of Maintenance done for four category in total} / 20\%))$ ".

2.2.5. For attending leak/ Burst works in the pumping and Feeder mains:

S.No	Description of the Pipes	Scheduled time for attending one leak work	Scheduled time for attending one Burst work
1.	For pipes from 50mm OD PVC to 110 mm OD PVC and GI	Within 12 hours	Within 24 hours
2.	For pipes 140 mm OD PVC, 160 mm OD PVC and 200 mm OD PVC and GI	Within 12 hours	Within 24 hours
3	HDPE pipes / AC pipe/ above 200 mm dia PVC Pipes and GI	Within 24 hours	Within 36 hours
4	For all size of DI / CI pipes	Within 24 hours	Within 36 hours
5	All sizes of MS pipe /PSC pipes/BWSC pipes	Within 36 hours	Within 48 hours

2.2.6. For attending pump set repairs:

S.No	Description of the Pump sets and allied accessories	Scheduled time for attending repair works
1.	For Submersible Pump sets and allied accessories	
a.	Minor repair works	With in 24 hours
b.	Major repair works with replacement of parts	With in 48 hours

c.	Coil rewinding works	4 – 6 days
2.	For Vertical Turbine Pump sets and allied accessories	
a.	Minor repair works	With in 48 hours
b.	Major repair works with replacement of parts	4 – 6 days
c.	Coil rewinding works	5 – 7 days
	For HSC Pumpsets and allied accessories	
a.	Minor repair works	within 24 hours
b.	Major repair works with replacement of parts	3 - 4 days
c.	Coil rewinding works	5 - 7 days

2.2.7. For attending the repair/ replacement works in Gate Valves, Sluice Valves, air valves, Non Return Valves, Scour Valves etc., it should be completed within **24** hours.

2.2.8. Penalty:

2.2.8.1. Non attending repairs within the specified period – 1% of value of work as per price schedule / day for unfinished portion or Rs.1000/day till the work is completed whichever is higher.

2.2.8.2. The transmission losses due to leaks or burst in pipeline, valves, and other installations, over flow of sumps during power failure should not exceed 7% of the quantity to be supplied calculated on monthly basis. If the transmission losses in the said situations exceed

7% - 10 % as calculated above, amount will be deducted at Rs.10/ KL (for the excess quantity more than 7 %.)

10% - 12 % as calculated above, amount will be deducted at Rs.30/ KL (for the excess quantity more than 7 %.)

12% - 15 % as calculated above, amount will be deducted at Rs.80/ KL (for the excess quantity more than 7 %.)

More than 15 % as calculated above, amount will be deducted at Rs.150/ KL (for the excess quantity more than 7 %).

2.2.8.3. In the case of wastage of water by Over flow of sumps / OHTs due to failure on the part of contractor shall be Rs.150 per KL of such over flown/ wasted water.

- 2.2.8.4. If any damage occurred in the scheme components, damage shall be rectified immediately by the contractor at his own cost. Penalty shall also be imposed for the default caused as per relevant clauses of this contract. If defect is not duly rectified by the contractor within the specified time, the work will be carried out by TWAD Board and the cost will be recovered as determined by TWAD Board including all escalations and losses.
- 2.2.8.5. If the contractor fails to attend the rectification works of the Electro mechanical items, cleaning the sumps etc a fine will be imposed as decided by the Executive Engineer depending on the value of such repair works / cleaning of sump works.
- 2.2.8.6. If the contractor fails to ensure the required residual chlorine at all delivery points including the tail end, a penalty will be imposed at **“double the cost of one day consumption of Disinfectants”** under the scope of this contract. If the supply and delivery of chemicals is not included under the scope of the agreement, the same will be supplied departmentally.

2.3. Payment for the value of work:

- 2.3.1 95% of the amount will be paid to the contractor for the ~~works~~ completed O & M works and the remaining 5% of the amount will be withheld for each and every part of the payment as in 2.3.2.
- 2.3.2 Under normal condition, payment will be made as follows subject to the conditions stipulated in the item no 2.2.

Category	As mentioned in PART-VI	Payment Value
A	At Head Woks / Treatment Plant / Tapping Point	20% of the Agreement value for Item No.1 of BOQ.
B	Completion of Preventive Maintenance and schedule of Maintenance as per Clause 1.4 in GCC	20% of the Agreement value for Item No.1 of BOQ.
C	Initial Beneficiaries	20% of the Agreement value for Item No.1 of BOQ.
D	Intermediate Beneficiaries	20% of the Agreement value for Item No.1 of BOQ.
E	Tail end Beneficiaries	20% of the Agreement value for Item No.1 of BOQ.

2.3.3 Withheld amount:

2.5% of the withheld amount will be released in the final bill. The Balance 2.5% will be released after 3 months from the date of taken over of the scheme.

2.3.4 Income tax:

During the course of the contract period, deduction of income tax shall be made at the prevailing rates from every payment as may be specified by the Income Tax Act and as amended from time to time.

Part III**ROLE OF TWAD BOARD**

1. A joint inspection will be made by the Assistant Engineer/ Assistant Executive Engineer or the Executive Engineer incharge of O & M of CWSS with the contractor or his representative before handing over of the CWSS / WSS for operation and maintenance.
2. The Executive Engineer or his Authorised representative shall furnish the salient details, components and flow diagram of the CWSS to the contractor along with the list of beneficiaries covered under the scope of this CWSS and the earmarked quantity required to be supplied to those beneficiaries. (PART –VI)
3. The field officers / Assistant Accounts Officers / Executive Engineers should ensure that all the statutory requirements as per the license issued by the competent authority and all the requirements of the Contract Labour (Regulation & Abolition) Act have been complied with by the contractor and a certificate to that effect may be directed to be incorporated by the concerned officer along with the running bills of the contractor, when the bill is sent for passing / sanctioning before the competent authority.
4. Power consumption charges will be paid by TWAD Board. However if penalty is imposed by the TANGEDCO due to reduction in maintaining the Power Factor, it will be recovered from the contractor.
5. The cost of Diesel consumption for operating Generators will be reimbursed by TWAD Board to the Contractor on submission of original voucher from the authorised seller.

6. Regular inspection will be conducted to ascertain the effective functioning of system through Engineers of TWAD Board.
7. Payment will be processed on monthly basis on receipt of bills from the contractor by following Board's procedures.

PART IV

LABOUR LAWS TO BE FOLLOWED

The rights and benefits conferred on the workmen employed by the contractor under the provisions of various Labour Laws are the responsibility of the contractor. The Contractor has to indemnify the TWAD Board in case of loss or any damages. It is the responsibility of the contractor to take insurance policy under Workmen's Compensation Act, 1923 for each labour engaged by the contractor. The Contractor will be responsible for any deficiency of safety measures to be adhered as stipulated in Annexure D. A Photocopy of the insurance under workmen's compensation Policy should be furnished to the Board. The policies should be kept alive till completion of the contract.

The Contractor shall adhere to following Laws wherever applicable

- 1) Workmen Compensation Act, 1923,
- 2) Payment of wages Act, 1936,
- 3) Industrial Disputes Act, 1947,
- 4) Minimum Wages Act, 1948,
- 5) Factories Act, 1948,
- 6) Employees PF and Miscellaneous Act, 1952,
- 7) Payment of Bonus Act, 1965,
- 8) Payment of Gratuity Act, 1972,
- 9) Equal Remuneration Act, 1979,
- 10) Maternity Benefit Act, 1951,
- 11) Contract Labour(Regulation & Abolition) Act, 1970,
- 12) Industrial Employment (Standing Orders) Act, 1946,
- 13) Trade Unions Act, 1926.
- 14) Child Labour (Prohibition & Regulation) Act, 1986,
- 15) Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act, 1979.
- 16) The Building and Other Construction workers (Regulation of Employment & Conditions of Service) Act, 1996 and the Cess Act of 1996,
- 17) Employee State Insurance Act, 1982,
- 18) The Tamil Nadu Manual Workers(Regulation of Employment and Conditions of Work) Act, 1982,
- 19) The Bonded Labour System (Abolition) Act, 1976,
- 20) The Employer's Liability Act, 1938.

PART V

SPECIAL CONDITIONS

1. The works which are not covered in the BOQ, but required for this scheme should be done by the contractor whenever required as supplemental works.
2. The Contractor shall pump or deliver additional quantity of water to the beneficiaries during festivals, emergencies, etc as directed by the TWAD Board Officials for which no additional payment will be made under the price schedule item no:1. The consumables for disinfection will be paid as per the rate in the BOQ / supplied departmentally.
3. If the reporting Data furnished by the Data operator under the Contractor is found to be False / Incorrect, necessary penalty (clause to be adopted) at the rate (as decided by the Executive Engineer) of Rs. 1,000 per instance.
4. Online Entry of daily pumping quantity should be consolidated, cross checked by the Supervisor/Technical Assistant and the data should be updated by the contractor in the TWAD web page in consultation with the section officer.
5. The EB reading should be noted / EB Demand should be received from the respective EB Section Office by the contractor and the same should be reported to the Section Officer, TWAD Board without any omission/delay.
6. Every month, the Water Demand raised should be distributed to the respective beneficiary of the TWAD Board and the acknowledgement of the demand should be reported to the section officer, TWAD Board. Then the Cheque / DD for the respective demand raised should be received from the beneficiaries and submitted to the Section officer, TWAD Board without any omission/delay by the contractor.
7. Contractor shall do watering of plants, trees, grass, etc., in the premises under the scope of this contract.
8. Any public representatives (Panchayat President, Union Chairman, District Chairman, M.L.A, M.P or any other socially responsible approaches) in connection with water supply problems they should be treated courteously and proper reply should be given.
9. No advance payment will be made.
10. Subletting of contract is not allowed under this contract.
11. Transfer of the contract is not permissible on any ground.
12. **The directions of the Hon'ble court in WMP. Nos. 11584 & 10723 of 2022 in WP No. 11128 of 2022 should be implemented scrupulously.**
 1. The wages paid to the labourers should not be less than minimum wages.
 2. In case the contractor engaged the labourers already worked in the CWSS, the wages already paid to the labourers should not be reduced at any cost.
 3. "10 months or completion of ongoing Retrofitting works whichever is earlier".

Part-VI**LIST OF BENEFICIARIES AND EARMARKED QUANTITY OF WATER TO BE SUPPLIED UNDER THIS CONTRACT.**

Name of Scheme : **OPERATION AND MAINTENANCE OF CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District for a period of 10 Months FROM 01.06.2022 TO 31.03.2023 (VIDE ANNEXURE – III)**

SI No.	Name of Corporation / Municipality / Town Panchayat/ Union	Name of Panchayat	Name of Habitation	Earmarked/ Allotted Qty. as per Scope in KL/day	Supplied Quantity for the Month of							Monthly Qty in KL.	Total Quantity supplied Annually in ML
					1	2	::	:	::	::	31		
A	Initial Reach Beneficiaries												
1													
2													
B	Intermediate Reach Beneficiaries												
1													
2													
C	Tail End Beneficiaries												
1													
2													
3													
4													
			Total										

LETTER OF NEGOTIATION

In pursuance of negotiation with the Executive Engineer/Superintending Engineer/Chief Engineer of Division/Circle/Region on

I/We agree to reduce the percentage for the items in the BoQ as follows.

Sl.No.	percentage in the BoQ	Reduced percentage
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TAMILNADU WATER SUPPLY AND DRAINAGE BOARD

Forwarding Slip to The Lump sum Agreement No.

1.	Name of Work	:	
2.	Estimate Amount	:	
3.	Sanctioned in Original Estimate No.	:	
4.	Revised Estimate No.	:	
5.	Name of Contractor and Address	:	
6.	Original or Supplemental	:	
7.	If Supplemental, Original Agreement No.	:	
8.	Approximate value of work to be done under this Agreement	:	
9.	If this is Supplemental, approximate value of works to be done under Original Agreement	:	
10	If bids have been called for, is the lowest tender accepted? If not reasons to be recorded.	:	
11	Has the contractor signed the divisional copy of TNBP and Its addenda volume brought upto date	:	
12	Is data furnished for all items of works noted in the Schedule	:	
13	Are the rates in Agreement within the estimate rates / or schedule of rates / approved rates by the SE whichever is less and the Lump sum provision sufficient or likely to be exceeded.	:	
	Additional Information	:	
	A. Original Agreement	:	
	1. Original Agreement amount of tender excess and percentage over the estimate rate.	:	
	2. If concessional rate of EMD & SD have been allowed ref. to sanction thereof	:	

Contractor

EXECUTIVE ENGINEER,TWAD

	B. Supplemental Agreement 1. Whether the approval of the competent authority has been obtained for the rates as required as per B.P.Ms.No.27/CMW/ dated 5.2.2002	:	
	2. If entrusted without tenders whether sanction is necessary with reference to total value of work covered by the supplemental agreement so far accepted.	:	

acceptance of bid from the accepting authority, there emerges a valid contract between the contractor and the Employer represented by the Officer accepting the agreement and the bid documents, i.e. invitation for bids, letter of application, bill of quantities and other schedules, general conditions of the contract, technical specifications of the bid, negotiation letter, communications of acceptance of bid, shall constitute the contract for this purpose and be the foundation of rights of both the parties, as defined in clause 8.1 of "—Bid Documents "Now hereby agreed that in consideration of payment of the said sum of Rs. (Rupees

) or such other sum as may be arrived at under the clause of the General conditions of the contract relating to payment by final measurement at unit prices, the contractor shall and well within the time specified in his bid thoroughly and efficiently and in a good workman like manner perform, provide, execute and do all the works, materials matters of things incidental to or necessary for the entire completion of the works specified under this contract and necessary works including all works shown in the drawings hereinafter referred to or described or set forth the said specifications and schedule hereto annexed and in accordance with such further drawings and instructions as the Engineer of the Board or other Engineer duly authorised in that behalf (therein after) and in the annexed documents referred to as the Engineer) shall at any time in accordance with the said schedule (Bill of Quantities) and specifications provide and give together, with any alterations in the works or additions thereto, in the time and manner in such schedule (Bill of Quantities) and specifications stipulated to the entire satisfaction of the Engineer, the Employer for themselves and their successors convenient and agree with the Contractor that during the progress of the works and on the completion of contract to the satisfaction of the Engineer, the Employer shall and will from time to time on receiving the certificates in writing of the Engineer pay to the contractor according to such certificates and the terms of this contract the price or sum mentioned in such certificates as due to the contractor under the terms of this contract subject nevertheless to deductions or additions thereto or the reform which may be lawfully made under terms of his contract. It is hereby mutually agreed and declared as follows.

a) All certificates or notice or orders for items or for extra varied or altered works which are to be the subject of an extra or varied or altered works charge shall be in writing whether so described in the contract or not and unless in writing shall not be valid or binding or be of any effect whatsoever.

b) The term contract include these presents and the invitation for bid, bid documents, bill

of quantities and other schedules, general conditions, special conditions and specifications hereto annexed and the plans drawings herein and hereafter referred to.

c) If the contractor claims that the decisions or the instructions of the Employer are unjustified and that accordingly, he is entitled to extra payments on account thereof he shall forthwith notify this to the Employer to record his decisions and reasons therefor in writing and shall within two weeks state his claims in writing to the Employer thereafter. The Employer shall thereafter within four weeks of the receipt of the claim, reply to the points raised in the claim. Unless resolved by negotiation or discussions immediate thereafter, within further four weeks the question of liability for such payment will be treated as a dispute.

d) In the contract whenever, there is as discretion or exercise of will, by the Employer during the progress of the work, the mode or manner of the exercise of discretion shall not be a matter for dispute.

e) The decision of the Employer shall be final conclusive and binding on all, Parties to the Contract upon all questions relating to the meaning of specifications, designs, drawings and instructions, and as to the quantity and quality of workmanship or material used on the work or any matter arising out of or relating to the specifications, designs and drawings and instructions concerning the works or the erection of or failure to execute the same arising during the course of works. The above shall not be the subject matter of dispute and in no case shall the work be stopped consequent on such a dispute arising and the work shall also be carried out by the contractor strictly in accordance with the instructions of the Employer.

f) In case any question, difference or dispute shall arise on, matters other than clauses (d) and (c) above and except any of the -excluded matters|| mentioned in bid documents touching the construction of any clause herein contained on the rights, duties and liabilities of the parties hereto or any other way touching or arising out of these presents, the same shall.

Settlement of dispute

Dispute Redressal Committee

In order to ensure a dispute Redressal mechanism, for tenders of value up to and Rs.1 Crore the Regional Technical Committee will be the " Dispute Redressal Committee" in order to resolve any disputes between the Employer / Engineer – in charge concerned and the contractor and the appeal committee is as mentioned below.

In order to ensure a dispute Redressal mechanism for tenders of value more than Rs.1 crore, a Committee headed by the Managing Director/Joint Managing Director and consisting of Engineering Director, TWAD Board and Engineering Director, CMWSS Board as Member, will comprise the " Dispute Redressal Committee" for each package in order to resolve any disputes between the Employer / Engineer-incharge concerned and the contractor

- i) In the event of non settlement of any dispute by Dispute Redressal Committee arising between parties here to in respect of any of the matter comprised in this contract, the same shall be settled by a competent court having jurisdiction over the place where contract is awarded and agreement is concluded and by no other court.
 - ii) Provided always the contractor shall not except with the consent in writing of the Engineer in any way, delay carrying out works in any such matter, question or dispute being referred to court but shall proceed with the works with all the diligence and shall until the decision of the Employer and no award of Competent Civil Court shall relieve the contractor of his obligations to adhere strictly to the instructions of the Engineer with regard to the actual carrying out of the works.
- ⇒ Time shall be considered as essence of the contract and the contractor hereby agree to commence the work immediately after taking over of site or signing the agreement whichever happens earlier. The date of completion is March 31st of the financial year 2022-23.

In witness where of the contractor

and the

Employer on

behalf of the Board have caused their common seal to be affixed the day and year first above written Signed, sealed and delivered by the said.

In the presence of

Signature of Contractor

Name and Seal.

Signature,

Name and Designation of Witness.

Signed by on behalf of TWAD Board.

Signed, Name and
Designation of Witness

EXECUTIVE ENGINEER
TWAD BOARD

A decorative scroll graphic with a black outline and grey shaded ends, framing the text.

**Operation and Maintenance of the CWSS to Kallakudi TP -
Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi
union of Trichy District through Outsourcing**

(For the period from 01.06.2022 to 31.03.2023 - 10 Months)

Operation and Maintenance of the CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District through Outsourcing (For the period from 01.06.2022 to 31.03.2023 - 10 Months)

GENERAL ABSTRACT.

Sl. No.	Schedule No	NAME OF COMPONENT	AMOUNT IN RUPEES.
1	A1	Operation and Maintenance of the Electro Mechanical installations, equipments, components, pipelines valves and appurtenances, water retaining structures	10,99,807.34
2	A2	Attending LEAKS and BURST of the Pipe lines	3,77,671.54
3	A3	Carrying out the repair works of the Electrical, Mechanical and Electro-mechanical item	3,05,600.00
4	A4	Cleaning of all storage points like sumps, elevated reservoirs of various capacities	20,214.04
		TOTAL	18,03,292.92
Rupees eighteen lakhs three thousands two hundreds ninety two and paise ninety two only			

I/ WE AGREE TO EXECUTE ALL THE ABOVE COMPONENTS OF WORK AT

..... PERCENTAGE EXCESS/ LESS OVER THE DEPARTMENTAL

VALUE MENTIONED ABOVE (THE PERCENTAGE SHOULD BE MENTIONED BOTH IN FIGURES AND WORDS)

Operation and Maintenance of the CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District through Outsourcing (For the period from 01.06.2022 to 31.03.2023 - 10 Months)

Operation and Maintenance of the Electro Mechanical installations, equipments, components, pipelines valves and appurtenances, water retaining structures

S. No	Description of work	Quantity	Specifications	Unit	Rate		Amount
					in figures	in words.	
1	Operation and Maintenance of the Electro Mechanical installations, equipments, components, pipelines valves and appurtenances, water retaining structures including protecton of all scheme components from damages/ theft undertaking legal actions for such untoward incidents, preventive maintenance, disinfection and deliverance of water as per quality standards and supply of earmarked quantity of water to the beneficiaries as per Annexure, carrying out the O&M as per standard operating procedures, Acts and rules in force and as directed by TWAD Board Officers and excluding cost towards attending leak, burst repair and replacement works to electro mechanical installations consumables for disinfectionof water, cleaning of all water retaining structure, electricity.	1051.23 MLD		1 MLD (One MLD)	1046.21	Rupees one thousand forty six and paise twenty one only	1099807.34
	TOTAL -A1						1099807.34

Operation and Maintenance of the CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District through Outsourcing (For the period from 01.06.2022 to 31.03.2023 - 10 Months)

Attending LEAKS and BURST of the Pipe lines

S. No	Description of work	Quantity	Specifications	Unit	Rate		Amount
					in figures	in words.	
1	Attending Leaks in the pipelines of this CWSS for the following items as per the standard procedure including earthwork excavation, dewatering, removing, relaying, jointing, civil works, cost of materials and all other incidental charges etc. complete with in the stipulated time limit as specified in clause 2.2.5 of General conditions of Contact-Part II.(The specifications for attending leaks has to be detailed based on the data prepared and rate approval obtained for each size and material of pipes.The specification has to be mentioned under the clause 1.7 of GCC-Part-I)		specified in clause 1.7 of GCC - Part- I)				
	For Minor Leak						
1	300mm DI K7 CL	1.00 Nos.		1 No. (One Number)	9113.56	Rupees nine thousands one hundred thirteen and paise fifty six only	9,113.56
2	250mm DI K7 CL	1.00 Nos.		1 No. (One Number)	6321.83	Rupees six thousands three hundreds twenty one and paise eighty three only	6,321.83

S. No	Description of work	Quantity	Specifications	Unit	Rate		Amount
					in figures	in words.	
3	300mm AC	2.00 Nos.		1 No. (One Number)	6829.40	Rupees six thousands eight hundreds twenty nine and paise forty only	13,658.80
4	250mm AC	2.00 Nos.		1 No. (One Number)	5612.90	Rupees five thousands six hundreds twelve and paise ninety only	11,225.80
5	200mm PVC 4 KSC	10.00 Nos.		1 No. (One Number)	5629.00	Rupees five thousands six hundreds twenty nine only	56,290.00
6	160mm PVC 4 KSC	4.00 Nos.		1 No. (One Number)	4121.00	Rupees four thousands one hundred twenty one only	16,484.00
7	140mm PVC 4 KSC	17.00 Nos.		1 No. (One Number)	2772.00	Rupees two thousands seven hundreds seventy two only	47,124.00
8	110mm PVC 4 KSC	7.00 Nos.		1 No. (One Number)	2477.00	Rupees two thousands four hundreds seventy seven only	17,339.00
9	90mm PVC 4 KSC	11.00 Nos.		1 No. (One Number)	1785.00	Rupees one thousand seven hundreds eighty five only	19,635.00
10	75mm PVC 4 KSC	3.00 Nos.		1 No. (One Number)	1455.00	Rupees one thousand four hundreds fifty five only	4,365.00

S. No	Description of work	Quantity	Specifications	Unit	Rate		Amount
					in figures	in words.	
11	63mm PVC 4 KSC	5.00 Nos.		1 No. (One Number)	1390.00	Rupees one thousand three hundreds ninety only	6,950.00
	For Minor Leak/ Circumfrential Crack						
1	300mm AC	2.00 Nos.			22259.81	Rupees twenty two thousands two hundreds fifty nine and paise eighty one only	44,519.62
2	250mm AC	1.00 Nos.			17758.06	Rupees seventeen thousands seven hundreds fifty eight and paise six only	17,758.06
	For Major Leak/ Burst						
1	300mm AC	1.00 Nos.			57693.63	Rupees fifty seven thousands six hundreds ninety three and paise sixty three only	57,693.63
2	250mm AC	1.00 Nos.			49193.24	Rupees forty nine thousands one hundred ninety three and paise twenty four only	49,193.24
	TOTAL - A2						3,77,671.54

Operation and Maintenance of the CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District through Outsourcing (For the period from 01.06.2022 to 31.03.2023 - 10 Months)							
Carrying out the repair works of the Electrical, Mechanical and Electro-mechanical item							
S. No	Description of work	Quantity	Specifications	Unit	Rate		Amount
					in figures	in words.	
1	Repair works in pumping station in the Electro-mechanical items to bring back the scheme / components into normal running condition as per standard specification including all labour charges, cost of materials and all incidental charges within the stipulated time limit etc., complete as specified in Clause 2.2.6 of General conditions of Contract Part II etc as directed by TWAD Board officers		specified in Clause 2.8 of General conditions of Contract Part II				-
	Repair work of Motor						
1	20 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	37,400.00	Rupees thirty seven thousands four hundreds only	37,400.00
2	20 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	37,400.00	Rupees thirty seven thousands four hundreds only	37,400.00
3	7.5 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	25,500.00	Rupees twenty five thousands five hundreds only	25,500.00
4	30 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	43,700.00	Rupees forty three thousands seven hundreds only	43,700.00
5	15 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	35,600.00	Rupees thirty five thousands six hundreds only	35,600.00
	Repair work of Starter						-
1	20 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	12,200.00	Rupees twelve thousands two hundreds only	12,200.00

S. No	Description of work	Quantity	Specifications	Unit	Rate		Amount
					in figures	in words.	
2	20 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	12,200.00	Rupees twelve thousands two hundreds only	12,200.00
3	7.5 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	8,500.00	Rupees eight thousands five hundreds only	8,500.00
4	75 HP - HSC Pumpset	1.00 Nos.		1 No. (One Number)	64,800.00	Rupees sixty four thousands eight hundreds only	64,800.00
5	30 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	16,500.00	Rupees sixteen thousands five hundreds only	16,500.00
6	15 HP - Submersible Pumpset	1.00 Nos.		1 No. (One Number)	11,800.00	Rupees eleven thousands eight hundreds only	11,800.00
	TOTAL -A3						3,05,600.00

Operation and Maintenance of the CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District through Outsourcing (For the period from 01.06.2022 to 31.03.2023 - 10 Months)

Cleaning of all storage points like sumps, elevated reservoirs of various capacities

S. No	Description of work	Quantity		Specifications	Unit	Rate		Amount
						in figures	in words.	
1	Cleaning of all storage points like sumps, stand posts of various capacities available in this scheme at a frequency of once in two months including scrapping the inner side of compartment completely, dewatering, desilting using required machineries , materials , labour, all incidental charges , application of bleaching powder/ solution etc complete and as directed by TWAD Board officers			specified in Clause 2.8 of General conditions of Contract Part II				-
1	Booster Station at Kovandakuruchi - 160000 Ltr	2.00 Nos.			1 No. (One Number)	10,107.02	Rupees ten thousands one hundred seven and paise two only	20,214.04
	TOTAL -A4							20,214.04

**CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi
union of Trichy District.**

1	Administrative Approval	G.O. Ms. No.37 dt 10.01.1989
2	Installation cost	Rs. 123.43 lakhs
3	Annual maintenance cost	Rs 8.25 Lakhs
4	Year of Commissioning	19.11.1992
5	Population benefitted	Int - 49125 / 2006 & Ult - 56700 / 2021
6	Daily requirement	Int - 2.35 MLD / 2006 & Ult. - 3.17 MLD / 2021
7	Hours of Pumping	16.00 Hrs
8	Per capita Supply	70 LPCD for Town Panchayat and 40 LPCD for Rural
9	Head Works - Source	Natham in Kollidam River Infiltration well - 2 Nos. Inner dia 4.50m, depth 12m, yield 1600 lpm each Connecting Main – 200 mm DI – 600 m each Collection Sump – 1.00 LL (inner dia 6.00m, depth 3.50m) Bore Well - 3 Nos 150 mm Dia, Yield - 500 lpm each Connecting Main – 150 mm CI D/F & 150 mm AC - 1240 m
10	Pumpset details at Head works	Infiltration Well – 2 Nos Each 15 HP P' Set 1500 lpm x 25 m head - 2 Nos. Bore Well - 3 Nos Each 7.50 HP P'Set 500 lpm x 40 m Head - 3 Nos Collection Sump 75 HP HSC P.set 2 nos. (3495 lpm x 52 m head)
11	Pumping main :	300 mm DI K7 - 3730 m 300 mm AC CL 15 - 3195 m Total - 6925 m
12	Booster Station	
	Place	Kovandakuruchi
	Sump Capacity	1.60 LL 8.25 m Dia x 3.45 m Depth
13	Pumpsets details Kovandakuruchi Booster	Kallakkudi Direction 30 HP Open well Submersible (1732 lpm x 49 m Head) Pullambadi Direction 15 HP Open well Submersible (1076 lpm x 44 m Head)
14	Booster Pumping Main to Kallakkudi Direction	250 mm DI K7 - 4700 m 250 mm AC CL 15 - 693 m Total - 5393 m
	Booster Pumping Main to Pullambadi Direction	200mm PVC 6 KSC - 3199 m 200mm PVC 4 KSC - 1583 m 160 mm PVC 4 KSC - 330 m Total - 4782 m

- At Kallakkudi
- 140 mm PVC 4 KSC - 2010 m
90 mm PVC 4 KSC - 715 m
63 mm PVC 4 KSC - 865 m
50 mm PVC 6 KSC - 710 m
- To Palanganatham and AVK Colony
- 90 mm PVC 4 KSC - 4445 m
- At Pullambadi
- 140 mm PVC 4 KSC - 1380 m
110 mm PVC 4 KSC - 915 m
90 mm PVC 4 KSC - 190 m
50 mm PVC 6 KSC - 380 m
- To Kovandakuruchi, Pudurpalayam & Alambakkam
- 140 mm PVC 4 KSC - 950 m
90 mm PVC 4 KSC - 3050 m
- To Natham and Mangudi
- 90 mm PVC 4 KSC - 400 m
50 mm PVC 4 KSC - 30 m
- Urban - 11 Nos**
- Kallakudi - 6 Nos.
Pullambadi - 5 Nos
- Rural - 11 Nos**

ANNEXURE - II

CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District.

- | | | |
|---|--|---|
| 1 | Head Works - Source | Natham in Kollidam River
Infiltration well - 2 Nos.
Inner dia 4.50m, depth 12m, yield 1600 lpm each
Connecting Main – 200 mm DI – 600 m each
Collection Sump – 1.00 LL
(inner dia 6.00m, depth 3.50m)
Bore Well - 3 Nos
150 mm Dia, Yield - 500 lpm each
Connecting Main – 150 mm CI D/F & 150 mm AC - 1240 m |
| 2 | Pumpset details at Head works | Infiltration Well – 2 Nos
Each 15 HP P' Set 1500 lpm x 25 m head - 2 Nos.
Bore Well - 3 Nos
Each 7.50 HP P'Set 500 lpm x 40 m Head - 3 Nos
Collection Sump
75 HP HSC P.set 2 nos. (3495 lpm x 52 m head) |
| 3 | Pumping main : | 300 mm DI K7 - 3730 m
300 mm AC CL 15 - 3195 m
Total - 6925 m |
| 4 | Booster Station
Place
Sump Capacity | Kovandakuruchi
1.60 LL 8.25 m Dia x 3.45 m Depth |
| 5 | Pumpsets details Kovandakuruchi
Booster | Kallakkudi Direction
30 HP Open well Submersible (1732 lpm x 49 m Head)
Pullambadi Direction
15 HP Open well Submersible (1076 lpm x 44 m Head) |
| 6 | Booster Pumping Main to
Kallakkudi Direction

Booster Pumping Main to
Pullambadi Direction | 250 mm DI K7 - 4700 m
250 mm AC CL 15 - 693 m
Total - 5393 m

200mm PVC 6 KSC - 3199 m
200mm PVC 4 KSC - 1583 m
160 mm PVC 4 KSC - 330 m
Total - 4782 m |
| 7 | Branch Pumping Main: | At Kallakkudi

140 mm PVC 4 KSC - 2010 m
90 mm PVC 4 KSC - 715 m
63 mm PVC 4 KSC - 865 m
50 mm PVC 6 KSC - 710 m

To Palanganatham and AVK Colony
90 mm PVC 4 KSC - 4445 m |
| 8 | Branch Pumping Main: | At Pullambadi |

140 mm PVC 4 KSC - 1380 m
110 mm PVC 4 KSC - 915 m
90 mm PVC 4 KSC - 190 m
50 mm PVC 6 KSC - 380 m

To Kovandakuruchi, Pudurpalayam & Alambakkam

140 mm PVC 4 KSC - 950 m
90 mm PVC 4 KSC - 3050 m

To Natham and Mangudi

90 mm PVC 4 KSC - 400 m
50 mm PVC 4 KSC - 30 m

9 Service Reservoir

Urban - 11 Nos

Kallakudi - 6 Nos.

Pullambadi - 5 Nos

Rural - 11 Nos

SUMPWISE DESIGNED QUANTITY

Sl. No.	Name of CWSS	Name of Headworks/ Booster Stattion/ Group Sump	Earmarked Quantity in KLD
1	CWSS to Kallakkudi TP and Pullambadi TP and 7 Rural Habitations in Lalgudi and Pullambadi Union of Trichy district.	Head Works at Natham	3458
2		Booster Sump at Kovandakuruchi	2941

ANNEXURE - III

CWSS to Kallakudi TP - Pullambadi TP and 7 Rural habitations in Lalgudi & Pullambadi union of Trichy District.

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