

MODEL TENDER DOCUMENT
TAMILNADU WATER SUPPLY AND DRAINAGE BOARD

(Modified Bid Document as per Board's Direction
in the Board meeting held on 18-2-2011)



**NAME OF
WORK**

Operation and Maintenance of CWSS to ----- and ----
Habitations in ----, and ----- Unions in ----- District.
for the period from ----- to -----

TENDER DOCUMENT (37 pages)

EXECUTIVE ENGINEER, -----DIVISION

Last date of submission:

Upto ----- pm on -----

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I. CHECKLIST FOR THE GUIDANCE OF THE CONTRACTORS

The contractor shall go through the 'Check List for the Guidance of the Contractors' below thoroughly before participating in the Tender:

1	The total number of items in the work schedule is 1 No. and the Departmental value works out to Rs.-----per Annum for the period -----to -----
2.	Tenderers are requested to sign all pages in the tender schedule and must sign letter of application. Tenders which do not have the signature of the Tenderer in letter of application will be rejected.
3.	Tenderers are requested to verify the number of pages in the tender schedule and number of items in the work schedule. Any clarification and further information required may be obtained from the Office of the Executive Engineer ,-----Division, -----, TWAD Board on any working day.
4.	<p>The present tender document contains work schedule and price schedule. The tenderers are requested to quote the percentage variation over the Departmental value in words and figures in price schedule. If there is any discrepancy between words and figures, the lower among the words and figures will be taken into account.</p> <p>All entries should be made legibly in ink. Writing the percentage variation first in pencil and later over writing in ink should be avoided and also over writing the corrections may be avoided.</p> <p>Corrections if any should be made by neatly scoring out the unwanted matter and rewriting legibly. Every such correction should be attested by the full signature of the Tenderer.</p>
5.	<p><u>Eligibility:</u></p> <p><u>Physical Criterion:</u></p> <p>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</p>

	<p>period</p> <p>b) Financial:</p> <p>The contractor 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 - XI</p> <p>Contractors registered in TWAD under Class ----- i.e., those who are eligible to take up the work costing more than Rs.----- lakh 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.</p>
6.	<p>EMD should be paid for an amount Rs----- in any one of the form given below:</p> <p>Demand Draft drawn on a Nationalised Bank/Schedule Bank in favour of the Executive Engineer, ----- Division, TWAD Board, ----- Deposits at Call receipt of Scheduled banks pledged in favour of the Executive Engineer, ----- Division, TWAD Board, -----</p> <ul style="list-style-type: none"> • Government Security and National Savings Certificate pledged in favour of the Executive Engineer, ----- Division, TWAD Board, ----- -- (Purchased within Tamilnadu) • Post office Savings Bank deposits pledged in favour of the Executive Engineer , ----- Division, TWAD Board, ----- • Fixed deposit receipts from Scheduled banks pledged in favour of the Executive Engineer , ----- Division, TWAD Board, ----- • Irrevocable Bank Guarantee as per Annexure – XII • <p>FDR should contain lien certificate issued by the Bank for encashment by department. The FDR furnished by the firm should also bear the</p>

	<p>signature of the authorized signatory on a revenue stamp at the back of the FDR.</p> <p>No cheque will be accepted towards Earnest Money Deposit.</p>
7.	<p><u>SECURITY DEPOSIT</u></p> <p>a) Security deposit equivalent to 2% of the value of the contract will be collected from the successful Tenderer in the following form and manner within 15 days from the date of receipt of work order:</p> <p><u>Form in which S.D. collected.</u></p> <p>In the shape of NSC/ Post office savings Deposits valid for the required contract period and pledged in favour of Executive Engineer, -----, TWAD Board and shall have the necessary transfer endorsement of the Post Office (OR)</p> <p>Fixed Deposit for the required period from Nationalized Bank/ in favour of Executive Engineer, ----- Division , TWAD Board.</p> <p>Irrevocable Bank Guarantee as per Annexure - XII</p>
b)	The value of S.D will be as follows:
i)	for tenders with any plus percentage and upto (-)15% over departmental value @ 2% of the contract value.
ii)	for tenders between (-)15% to (-)20% over departmental value @ <u>50% of the difference between the Department value and value of the tenderer</u> as additional deposit.
8.	Recovery to be made for Non-compliance to Schedule of work/ Mandatory Duties are furnished in the Annexure VII . Tenderers are requested to take note of the details. The above details will be incorporated in the contract documents while executing agreement.
9.	All Duties, Taxes such as VAT, Sales Tax and Service Tax etc. and other levies payable by the contractor under the contract or for any other cause shall be included in the rates, prices and total quoted rates submitted by the Tenderer Any statutory variations in duties/taxes, which take effect from a date subsequent to the due date for receipt of tender, shall be to TWAD Board's Account.
10.	The rate quoted by the contractor shall include payment for labour welfare measures like ESI, EPF, Workers' Insurance ,contribution to



TAMIL NADU WATER SUPPLY AND DRAINAGE BOARD

II. TENDER CALL FOR OPERATION AND MAINTENANCE

OF COMBINED WATER SUPPLY SCHEME

FORM OF CONTRACT: PERCENTAGE TENDER

TENDER CALL NO.-----DT----

1. For and on behalf of Tamil Nadu Water Supply and Drainage Board, sealed Tender is invited by the Executive Engineer,----- Division , ----- under percentage Tender system for the Operation and Maintenance of Combined Water Supply Scheme as detailed below:

Sl. No.	Details of Work	Value of Tender	Office of the Tender inviting authority
1.	Operation and Maintenance of CWSS to ----- and ---- Habitations in ----, and ---- -- Unions in ----- District. for the period from ----- to -----	Rs.....	Office of the Executive Engineer ,-- -----Division, ----- --, TWAD Board .

2. Contractors registered in TWAD under Class ----- i.e., those who are eligible to take up the work costing more than Rs.----- lakh 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 executed similar works of the same or higher magnitude are also eligible to tender for this work.
3. Tender documents in English may be purchased by interested tenderers on submission of written application accompanied with a separate Demand Draft for the said work from any Nationalised/Scheduled bank drawn in favour of the Executive Engineer ,-----Division, -----, TWAD Board for the work as detailed below on any working day between 10.00 hours and 17.45 hours from ----- to -----.

4. Cost of tender document per Work is Rs.----- + 4% VAT + 5% surcharge on VAT.
5. Amount of Earnest Money Deposit will be Rs-----, payable to the Executive Engineer, -----Division, -----, TWAD Board
6. Period of contract is for 3 years.
7. Further details about each work can be had from the office of the Executive Engineer, -----Division, -----, TWAD Board .
8. Last date for submission of Tender is before ----- pm on -----
9. The tender will be opened at -----pm on -----

EXECUTIVE ENGINEER /
-----Division/-----
TWAD Board

III. LETTER OF APPLICATION

To be delivered to the Executive Engineer, TWAD Board at or before -----
P.M.
on -----

To
The Executive Engineer.
-----Division,-----
TWAD Board,
.-----

I/We the undersigned do hereby tender and undertake to perform, provide and execute all the works, materials matters and things described or mentioned in the **Work Schedule** (item IV) of Tender Document and the specifications thereto (which have been produced to and carefully examined by me/us) in strict accordance with and under and subject to the terms, provisions and conditions set forth or mentioned in the said Schedule specifications therein referred to, at the rates given in the **Price Schedule**

I/We herewith enclose D.D/NSC./P.O No..... datedfor having remitted Rs..... in favour of Executive Engineer, -----Division,-----,TWAD Board, as a guarantee for the due fulfillment of my/our tender, and if successful, undertake and agree to forward to the Board within fifteen days after the issue of work order by the Board of this tender has been received by me/us, the sum as demanded in the Form and manner required as security for the due fulfillment of my/our contract.

I/we undertake and agree that I/We will not withdraw this tender during the period that will be required for intimation, acceptance or non/acceptance as stipulated by the authority inviting Tender Notice or during such extended period as agreed to by me/us, such period to date from the last date by which tenders are due to be submitted to the Board and if I/We do so withdraw, I/We shall forfeit the Earnest Money Deposit to the Board.

I/We further undertake to produce the Income-tax Clearance Certificate or any other certificate found required by TWAD Board and agree to execute at my/our cost the agreement attached and to sign the documents therein referred to within 15 days after the notification of the acceptance of my/our tender

has been received by me/us. In the event of my/our failing to make the Security Deposit or to execute the agreement in the said manner and sign the documents within the time specified for the purpose, the sum of **Rs.-----** accompanying this tender as EMD shall be forfeited to the Board and this concluded contract shall in such case be considered, as having been cancelled or terminated and you may thereupon at such time or times, in such manner and on such terms as you may think fit, arrange either departmentally or by any other person or persons to carry out the works and provide, execute and do all works, materials, matters and things described or mentioned herein and I/We agree to be liable irrespective of the forfeiture aforesaid for all damages, losses, costs, charges and expenses arising from or by reason of such failure and arrangements.

I/We undertake to assume full responsibility for the works I/ we carry out during the contract period.

I/We also undertake to do all extra or varied works which may be ordered as part of this contract upon the terms provided for in the conditions and specifications. The tenders shall be valid for a period of 90 days from the last date fixed for receipt of tenders. In case my/our tender for the work of "Operation & Maintenance of CWSS to -----for a period of **3 years**" is accepted, I/We agree and guarantee to commence the said works within a period of seven days from the date of receipt of work order and carry out the agreed work as stipulated for a period of **3 years** from the date of commencement of work by me/us. I/We also agree that the performance is the essence of contract. If my/our performance is not to the best satisfaction of the TWAD officials, my/our contract shall be terminated at any point of time.

I/We have actually inspected the sites/areas of operation and maintenance, assessed the nature of the work and have tendered for the works after such inspection.

UNDERTAKING

I/We have gone through the copy of standard tender document received from the Office of the Executive Engineer,-----, TWAD Board, and abide by the same for this contract also.

As witness my/our hand this.....day of.....20---.

Signature.....

Name and
address:

IV. WORK SCHEDULE

NAME OF WORK: Operation & Maintenance of CWSS to -----for a period of 3 years

Sl. No.	Description of work	Rate per month (Departmental)	Amount for 12 months
1.	Operation & Maintenance of CWSS for a period of 3 years under ----- Division, -----,TWAD Board, by providing required skilled and unskilled personnel to perform the mandatory duties specified in the schedule.	1 st year = Rs-----	Rs-----
		--	
		2 nd year =Rs ----	Rs-----
		--	
		3 rd year =Rs ----	Rs-----
		-	
	Total		Rs-----

Note:

- 1.The rate is inclusive of ESI, EPF, Insurance and Service Tax, etc
- 2.The rate is for operation and maintenance of CWSS by providing minimum number of skilled and unskilled personnel and condition as detailed below:

MINIMUM MAINTENANCE PERSONNEL TO BE EMPLOYED

The following minimum personnel are to be engaged by the contractor to maintain the CWSS

Sl.No	Description of personnel	No.
1	Electrical Superintendent	
2	Electrician	
3	Fitter	
4	Maintenance Assistant/Watch and Ward	
5	Turn Cock	
6	Filter Bed operator	

Conditions:

The contractor has to train the personnel to be employed in maintenance at his own cost. Any repairs, damages caused due to unqualified person engaged by the contractor, the same should be rectified by the contractor at his risk and cost. If any personal is found to be unfit or disobedience to the instructions given by the TWAD Board Officers, they should be stopped from work immediately. Any injury or loss of life to the maintenance person/persons, during the maintenance period, TWAD Board is not responsible on any account. The contractor /firm shall take **"risk insurance"** at their/his own risk and cost against loss of life or injury to the persons engaged for maintenance.

During the maintenance period, the maintenance personnel available with TWAD Board elsewhere shall be posted to this maintenance work. In such cases necessary cost towards the payment for the personnel engaged by the TWAD Board shall be recovered from the contractor's bill as per the current TWAD SR for various category of maintenance personnel. The TWAD Board Officers shall also transfer any TWAD personnel from this maintenance work to elsewhere at any time whenever required.

CONTRACTOR

EXECUTIVE ENGINEER (TWAD Board)

V. PRICE SCHEDULE

I/We agree to carry out the work of Operation & Maintenance of CWSS to ----- for a period of 3 years as per the work schedule at a percentage over the departmental value furnished below :

Sl. No.	Period	Departmental value per Annum	Percentage over the Departmental value in figures & words
1	1 st year	Rs.-----	in figures in words
2	2 nd year	Rs.-----	in figures in words
3	3 rd year	Rs.-----	in figures in words

NOTE:

1. If there is any discrepancy in percentage quoted in words and in figures, the lowest of the two will be considered.
2. The tenderer is requested to quote the rate for 1st year, 2nd year and 3rd year
3. If no rate is quoted for any year, the Departmental value will be taken as quoted price
4. The rate quoted by the tenderer is inclusive of ESI, EPF and Service Tax, etc.

VI . SUBMISSION OF TENDER

- 1.The Tender should be submitted in the original tender documents as issued by the Executive Engineer.
2. Under no circumstances , the tender documents are transferable.
3. The tender documents should be placed in an envelope ,pasted, sealed and superscribed properly as "Operation and Maintenance of CWSS to ----- and ---- Habitations in ---- and ----- Unions in ----- District for the period from ----- to -----"
- 4.All the envelopes shall be addressed to the Executive Engineer, TWAD Board,-----
-----Division-----.
- 5.The envelope shall bear the name and address of contractor to enable the tender to be returned in case it is declared late.
- 6.If the envelope is not sealed and marked as above, the Executive Engineer will assume no responsibility for the misplacement or premature opening of the tender
- 7.The tender documents must be received by the Executive Engineer mentioned above not later than 15.00Hours on ----- .In the event of the specified date for submission of tender is declared a holiday for the Executive Engineer, the tender will be received upto to the specified time on the next working day.
- 8.The Executive Engineer may extend the dead line for submission of tender by issuing amendment,in which case all the rights and obligations of the Executive Engineer and the tenderer previously subject to the original dead line then be subject to the new dead line.
- 9.All tenders received by the Executive Engineer after the deadline prescribed for submission of tender will be returned unopened to the tenderer.

VII. TENDER OPENING AND AWARD OF CONTRACT

Tender opening

- 1.The Executive Engineer will open all the tender in the presence of tenderer or their representatives on the date at the time in the address specified
- 2.The tenderers' names, the tendered percentage over the departmental value and the presence or absence of EMD will be announced by the Executive Engineer at the time of opening.
- 3.Information relating to the comparison of tenders and recommendation for the award of contract shall not be disclosed to tenderers until the award of contract has been announced.

Award of Contract

- 1.The Executive Engineer will award the contract to the tenderer who has quoted the lowest percentage over the departmental value provided that the tenderer is eligible in accordance with the item no.5 in the check list for the contractors of this tender document
- 2.The Executive Engineer reserves the right to accept or reject any tender
- 3.The tenderer whose tender has been accepted will be notified of the award of the contract by the Executive Engineer by registered letter.
- 4.The successful tenderer, if not registered with TWAD Board, shall get registered in TWAD Board.
- 5.Within 15 days on the receipt of the award of the contract, the contractor shall pay the security deposit as specified in the item 7 in the check list for the contractors of this tender document
- 6.The tender along with the SD, shall deliver a non judicial stamp paper of Rs.100/- (Rupees one hundred only) at his cost for executing the agreement.

Signing of agreement

- 1.The Executive Engineer on receipt of the SD and non judicial stamp paper, will furnish to the tenderer the Agreement incorporating all terms and conditions between the Executive Engineer and the successful Tenderer.
- 2.Upon furnishing the SD by the successful tenderer,the Executive Engineer will notify the other tenderers that their tenders have been unsuccessful.
- 3.Failure of the successful tenderer to comply with the requirements of item 4,5 & 6 of the Award of Contract para, shall constitute a breach of contract, cause for annulment of the award , forfeiture of the EMD and any such other remedy the Executive Engineer may take under the contract.

Amendment to the Agreement

Any amendment shall be issued by mutual consent between the Executive Engineer and the contractor only without any contrary to the tender conditions.

Forfeiture of SD

The SD is liable to be forfeited in cases where the contractor fails to carry out the work in accordance with the terms and conditions of the contract leading to termination of the contract.

VIII.LIST OF CETRTIFICATES

- 1.Certificate of Registration as contractor in TWAD Board/Govt.organisation
- 2.Signature of all partners/power of attorney
- 3.Income Tax clearance certificate.

IX. MANDATORY DUTIES OF THE CONTRACTOR

1. To ensure that the water is supplied to each beneficiary as per the designed quantity on normal condition.
2. Must keep a copy of the relevant portions of the 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.
3. Ensuring that adequate manpower is available round the clock to carry out the above tasks and to prevent entry of unauthorised persons.
4. Operation on specified shifts / day and ensuring that back up teams would be available to take over during Sundays, Holidays and in the event of regular Operator / Labour absence including watch and ward.
5. Attendance should be maintained by the contractor and the employees to sign it in every shift. It must be produced for verification as and when called for by the TWAD Engineers. **The number of actual Labourers engaged for the maintenance of CWSS should be reported by the contractor daily to the concerned Executive Engineers.**
6. The contractor has to provide decent uniform with name badge to their staff.
7. Operate and maintain equipment with skilled staff so as to safeguard the equipments against single phasing, earth fault, phase reverse etc. in power supply.

8. To maintain plant and machineries, pump room and it's premises, Pumping main and valves and Treatment Units as per the Schedule of Maintenance annexed as **Annexure II**.
9. The contractor shall carry out minor repairs as listed **Annexure-IV**
10. Operate and maintain capacitor and allied switch gear so as to maintain a power factor of not less than 0.90 prescribed by TNEB.
11. The power factor will not decrease or increase suddenly and hence the contractor should monitor daily. If any decrease in the power factor is noticed, it should be informed to the Departmental Engineers (concerned Assistant Engineer/Assistant Executive Engineer).
12. If Genset is in the scope of contract, 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 required Diesel / Lube oil will be supplied by Board and the contractor should make necessary arrangement for conveying the same. However, in case of emergency, the contractor may arrange to purchase the required Diesel / Lube oil as directed by the Engineer in charge and the related cost will be paid as per actual on production of bills.
13. Make sure that the levels in the sumps are maintained in a safe required level and to ensure that overflowing of sump does not occur.
14. Care should be taken to prevent overflow of OHT.
15. All necessary Registers are to be maintained as directed by TWAD Engineers.
16. Mandatory Regulations prescribed by CEIG and Inspector of Factories shall be followed without any lapse.
17. Each station should be provided with complete set of tools and equipments required for maintenance as listed in the **Annexure III**.
18. To adhere to safety measures as stipulated in **Annexure V**.
19. To adhere to the Contract welfare Laws as applicable to this scope of contract - **Annexure VI**
20. The bidder should furnish his local office and residential address along with Telephone Nos, email id and mobile nos.

X DUTIES AND RESPONSIBILITIES OF CONTRACT LABOUR

- 1) He shall hold full responsibility of maintaining pumphoom pumpsets electrical motors and valves etc. as prescribed by the Board
- 2) To inform minor/major/repairs immediately and should be present at site until completion works of repair
- 3) He shall have full responsibility for maintaining maintenance schedule such as daily, weekly and monthly programmes.
- 4) He shall keep safety belt, gas mask, gas monitor and First Aid box to his custody and utilize whenever requires.
- 5) He shall be responsible for over all cleaning and keeping the station neat and tidy
- 6) To approach TNEB authority when power fails in TNEB structure/Board structure and ascertain early supply resumption.
- 7) He shall check up Power Factor everyday and to maintain at minimum 0.90 as prescribed by TNEB.
- 8) In charge shall be responsible to carryout mandatory duties of contractor in the individual pumping station
- 9) Up keeping the equipments and installations in pumping station such as air blowing motors, control panels, gland packing, changing Engine Oil and maintenance of battery.
- 10) Recording Log Book for every hours and including starting/stopping time of the pump sets.
- 11) Check the temperature/Noise of Running units and control panel
- 12) Record daily shift activity in Log Book
- 13) General cleaning of all equipments, buildings and the yard and keeping the premises clean and tidy
- 14) Ensuring that staff is available round the clock to carryout out the above task and to prevent entry of unauthorized persons.
- 15) Provide gland packing for the pumps, sluice valve etc. whenever required to avoid leakage of water.
- 16) Watering of plant and tree
- 17) Operating of sluice valves and nonreturn valves
- 18) To go along pipe line system and check for any leak, burst and damage to the pipe. To inform TWAD Engineers immediately for rectification.
- 19) Follow the instruction if any by the Engineers of TWAD Board

ANNEXURE – I
MODEL ESTIMATE FOR AN ANNUM

Sl. No.	Description of work	Quantity (no)	month	Rate Rs. P	Per	Amount Rs.P
1	Electrical Superintendent		1		no/month	
2	Electrician		1		no/month	
3	Fitter		1		no/month	
4	Maintenance Assistant/Watch and Ward		1		no/month	
5	Turn Cock		1		no/month	
6	Filter Bed operator		1		no/month	
	Sub-Total I per month					
7	Workers' Welfare fund @0.3 % of Sub Total -I					
8	ESI @ @4.75% as per Labour act of Sub Total -I					
9	EPF @ @13.61% as per Labour act of Sub Total -I					
	Sub -Total -IIa per month					
	Sub-Total - IIb per annum	Sub- Total -IIa x 12				
10	Uniform and ID cards for workers -2sets per worker per annum					
	Sub-Total - III					
	Service Tax @10.30% of Sub-Total III					
	Total Cost per annum (A)					

Cost for the 2nd year (B), (@5% increase) = 1.05 x (A)

Cost for the 3rd year (C), (@5% increase) = 1.05 x (B)

ANNEXURE II
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 by 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"/>
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"/>

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
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	<input type="checkbox"/>			

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
	working and replace if necessary				
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"/>	
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?				

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
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"/>		
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"/>			

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
8.3	Check & Top up Bearing grease or replace grease				
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"/>	
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"/>	

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
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			<input type="checkbox"/>	

Item No.	Description of work	Daily	Weekly	Fort-nightly	Monthly
	equipments and control panels				
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"/>
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"/>	

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

ANNEXURE.III
EQUIPMENTS AND TOOLS TO BE MADE AVAILABLE
AT EACH PUMPING STATION

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

ANNEXURE IV

LIST OF MINOR REPAIRS TO BE ATTENDED

Minor repairs noticed in the maintenance of scheme should be reported to the AE/AEE in charge of the CWSS without any time lapse. The rectification work have to be carried out immediately as per the direction of the AE/AEE. Necessary entry for the repairs carried out has to be made in the Log Book concerned.

Electrical Works

1. Replacement of H.G. Fuses
2. Replacement of jumpers
3. Replacement of insulator (porcelain) – one phase
4. Replacement of A-B switch – one phase
5. Replacement of no-volt coil for A.C.B. and O.C.B.
6. Replacement of jumper with socket inside the panel
7. Replacement of cable lugs including terminations
8. Replacement of burnt-out H.R.C. fuses
9. Replacement of moving and fixed contacts or contactors Repairs to isolators

Pumpsets

1. Replacement of coupling bolt & nuts including rubber bushes
2. Replacement of worn-out impeller nut
3. Replacement of spindle nut in the sluice valve
4. Replacement of terminal plate in the motor
5. Replacement of carbon brushes and brush holder

Valves

1. Replacement of spindle nut in sluice valves
2. Replacement of glands in valves
3. Replacement of ball in air valves

DG Set

1. Replacement of burnt-out spares in the battery charger of D.G.
2. Rewinding of self-starter in the case of D.G.
3. Replacement of repairing of cut-out of D.G.

General

Replacement of bulb, choke, starter, etc.

Note: The old parts which have been replaced should be returned to the Board wherever applicable.

ANNEXURE V
SAFETY MEASURES TO BE ADHERED TO

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. 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.

2. Only experienced, skilled people have to be employed by the contractor

3.Safety belts, ropes, Gas mask, Torch lights, are to be provided by the contractor for laborers who get into wells.

4 All personnel should be covered by insurance under workmen compensation act..

- 5 All labour act provisions has to be met with.
- 6 Exhibit labels of "SAFETY FIRST"
- 7 First Aid Box should made available within the reach of the staff in all Pump Rooms and Booster Stations.
- 8 No medicine should be kept in the first aid box
- 9 First Aid Chart should be displayed in the Pump Rooms

ANNEXURE.VI
CONTRACT LABOUR WELFARE

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 V. 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

- a) Workmen Compensation Act, 1923
- b) Payment of Wages Act, 1936
- c) Industrial Disputes Act, 1947
- d) Minimum Wages Act, 1948
- e) Factories Act, 1948
- f) Employees PF and Miscellaneous Act, 1952
- g) Payment of Bonus Act, 1965
- h) Payment of Gratuity Act, 1972
- i) Equal Remuneration Act, 1979
- j) Maternity Benefit Act 1951
- k) Contract Labour (Regulation & Abolition) Act 1970
- l) Industrial Employment (Standing Orders) Act 1946
- m) Trade Unions Act 1926
- n) Child Labour (Prohibition & Regulation) Act 1986
- o) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979
- p) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996.
- q) Employee State Insurance Act, 1948
- r) The Tamil Nadu Manual Workers (Regulation of Employment and Conditions of Work) Act, 1982.
- s) The Bonded Labour System (Abolition) Act, 1976
- t) The Employer's Liability Act, 1938

ANNEXURE.VII

PENALTY FOR NON-COMPLIANCE TO SCHEDULE OF WORK / MANDATORY DUTIES

If the contractor fails to carry out any work or part of work/mandatory duties, the Board shall have the power to carry out such parts of work departmentally and recover such amount including 10% as the supervision charges from the progressive bills.

If the absentees of total labour are less than 20% mandays, recovery to be made at 1.5 times of labour rate (as per TWAD SOR of the current year for respective category)for first week and at 2 times for the second to fourth week. If the absenteeism continued beyond fourth week and also absenteeism is more than 20% action to be initiated for termination of labour contract by giving prior notice.

ANNEXURE.VIII

ROLE OF TWAD BOARD

1. A joint inspection will be had by TWAD Board with the contractor or his representative before handing over of the CWSS for maintenance.
2. The Executive Engineer to furnish the salient details and flow diagram of the CWSS to the contractor along with the list of habitations covered under the scope of this CWSS and the earmarked supply to them
3. To check the number of employees engaged by the contractor as per agreement. **The Executive Engineer should get from the contractor daily report on the labourers engaged by him for maintenance of the CWSS and in turn , should report the numbers to the TWAD Board Head Office daily after due verification.**
4. TWAD Engineers shall closely monitor the Power Factor. If variation is noticed, suitable direction has to be given to the contractor to improve the Power Factor.
5. Power Consumption charges will be paid by TWAD Board.
6. TWAD Board will arrange to provide the Telephone connection in the premises wherever found necessary and the entire telephone charges including the rent shall be paid by TWAD Board.
7. To conduct regular inspection to ascertain the effective functioning of system through Engineers of TWAD Board.
8. Payment will be processed on monthly basis on receipt of bills from the contractor by following Board's procedures.
9. The spares, grease, waste ,glands for valves and fuse wires will be provided by the department.
- 10.If Diesel Generator(DG) set is maintained, supply of Diesel and Engine Oil etc. for DG set will be made available by TWAD Board.

ANNEXURE.IX

PAYMENT

Payment will be processed and paid to the contractor on monthly basis by following Board's procedures.

Any losses or damages to the properties of TWAD Board caused either due slackness on the part of the contractor or his employees or due to improper operation of the system will be recovered from the contractor's bill of the subsequent month.

If the contractor fails to effect supply of the designed quantity to the habitations under the scope of this contract, unless and otherwise the cause is due to insufficient yield in sources, Power Supply, any natural calamity or any other reasons genuinely acceptable to the Executive Engineer, recovery will be made from the bill proportionate to the short supply against the earmarked supply.

Payment for the value of work completed in a satisfactory manner as per agreement will be paid. However, 5% (Five percent) of the value of work completed as per agreement will be withheld in every part payment. The 5% (five) of bill amount already withheld in the part bills will be released in the final bill and 2.5% (two and half) of the amount towards additional Security will be recovered in the final bill.

The above 2.5% amount towards additional Security deposit recovered in the final bill will be released after completing Six (6) months from the date of completion of work.

Income tax recovery:

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 Department

ANNEXURE X
SPECIAL CONDITIONS

- 1 Ensuring that adequate manpower is available round the clock to carry out the agreed tasks and to prevent entry of unauthorized persons.
- 2 The contractor should furnish the list of employees, with their names, proposed to be employed by him Unauthorized persons other than reported should not enter in the scheme's premises in the capacity as agent etc., But the substitute of an employee could be permitted with specific orders.
- 3 **No employee of the contractor shall stake claim for employment in TWAD Board at any point of time because of having worked as labourer in this CWSS.The contractor shall get an undertaking from his employee to this effect and furnish it to the Executive Engineer**
- 4 The contractor should employ only skilled and qualified persons to ensure proper operation and maintenance of the CWSS
- 5 Any problem in the motor and pumps, electrical main boards and fixtures, 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 should be brought to the notice of the Asst. Engr./ Asst. Exe. Engr., immediately and initiate action for the restoration of water supply. Necessary entry should be made in the register.
- 6 Log sheet of pumping should be sent to the Asst Executive Engineer/ TWAD Bd. on the 26th day of every month (from 26th of the previous month to 25th of current month) without fail along with bill claims.
- 7 Any alternation/additions if needed to the existing arrangements, both in electrical and mechanical installations should be attended only after proper approval from the Executive Engineer.
- 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 Employment of child labour is forbidden
- 11 If the employees sustain any injury while on duty due to accidents, no compensation will be paid by the TWAD Board.

- 12 The contractors shall be fully responsible for operating and maintaining the scheme in a safe & secure manner.
- 13 The consumables required for this scheme will be supplied by the Department every month free of cost and acknowledgement to be given to TWAD Board Officers by the Contractor.
- 14 In respect of leaks in PSC/AC/CI and PVC pipes earth work excavation will be carried out departmentally. The Contractor has to extend all the required co-operation for the leak rectification works.
- 15 The contractor should ensure designed quantity of supply to all the beneficiaries. Contractor should maintain register showing the quantity of water delivered to each panchayat, duly signed by a responsible person of the local body concerned.
- 16 Subletting of contract:

Transfer of the contract is not permissible on any ground. However, the supplier/ contractor shall sublet any portion of the contract only with the written consent of the Engineer in charge. It should be clearly understood that any subletting shall in no way absolve the contractor of its/ his responsibilities and obligations under this contract.

- 17 Recovery of money payable to the 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 howsoever 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 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 or all the government promissory notes for the 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 government promissory notes or 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

ANNEXURE XI
SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT
FACILITIES – CLAUSE 7.1.9

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 over draft / credit facilities to the extent of Rs..... to meet their working capital requirements for executing the above contract.

CONTRACTOR

EXECUTIVE ENGINEER

ANNEXURE XII
PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

To
The Executive Engineer, TWAD Board.

_____ (Name of Employer)
_____ (Address of employer)

WHEREAS _____ (Name and address of contractor)
(hereinafter called "The Contractor" has undertaken, in pursuance of contract
No. _____ dated _____ to execute _____
_____ (Name of contract and brief description of work) hereinafter
called "the contract"

AND WHEREAS it has been stipulated by you in the said contract that the contractor shall
furnish you with a Bank Guarantee by a recognized Bank for the sum specified therein, as
security for compliance with his obligations in accordance with the contract.

AND WHEREAS the contractor has requested us to give the Bank Guarantee.

AND WHEREAS we have agreed to give the contractor such a Bank Guarantee
unconditionally and irrevocably to guarantee as primary obligator and not as mere surety,
all the payments to the _____

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on
behalf of the contractor, upto a total of _____ (amount of guarantee)
_____ (amount in words such being payable in the types
and proportion of currencies in which the contract price is payable, and we are undertake
to pay you unconditionally and irrevocably upon your first written demand and without
cavil or argument, any sum or sums within the limit of _____ (amount
of guarantee) as aforesaid without you needing to prove or to show grounds or reasons for
your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor.

CONTRACTOR

EXECUTIVE ENGINEER