



**GOVERNMENT OF ODISHA
(HOUSING & URBAN DEVELOPMENT DEPARTMENT)**

**OFFICE OF THE SUPERINTENDING ENGINEER ,
PUBLIC HEALTH DIVISION, BHABANIPATANA,**

E-mail: eeephbht@gmail.com

**DETAILED TENDER CALL NOTICE (DTCN)
FOR**

**"Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in
different pump house at Bhabanipatana Municipality"**

ESTIMATED COST: 25.34 LAKHS

Bid Identification No. SEPHD-BHPT- 30 OF 2026-27/ DT. 05.09.2026

COST OF TENDER PAPER: Rs. 6,000.00

SEP-2026

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SECTION-1



**GOVERNMENT OF ODISHA
OFFICE OF THE SUPERINTENDING ENGINEER ,
P.H. DIVISION, BHABANIPATANA.**

* * * * *

NOTICE INVITING TENDERS FOR THE WORK

"Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality".

NATIONAL COMPETITIVE BIDDING THROUGH e-Procurement

Identification No. SEPHD-BHPT- 30 OF 2026-27/ DT. 05.09.2026

The **Superintending Engineer, P.H. Division, Bhabanipatana, Odisha** on behalf of Governor of Odisha invites **Percentage Rate Bids** through **e-Procurement** in conformity with the terms and conditions of the Detailed Tender Call Notice (DTCN) in Single Bid system from **Firm/ B & C" Class** Contractors registered with the Odisha State Government and Contractors of equivalent grade / class registered with Central Government / any other State Government / MES / Railways and Companies or Reputed Engineering Firms registered as **Firm / B & C class contractor** to be eventually drawn up in the standard **P₁ Contract Form**. The bid should be submitted on-line in the website **www.tendersorissa.gov.in** by eligible class of contractors. The bidders should have the necessary Portal Enrolment (with his own Digital Signature Certificate). The registered bidders of outside Odisha can also participate in this process, after necessary Portal Enrolment, but shall have to subsequently undergo registration with the appropriate authority of the State Government before signing agreement.

Sl. No.	Name of the Work	Value of the Work (In Lakhs)	Concerned T.I.A	Bid Security Amount (Rs.) (Online)	Cost of Bid Document (Rs.) (Online)	Class of Bidder	Period of Completion
1	2	3	4	5	6	7	8
1	Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality	25.34	SUPERINTENDING Engineer, P.H. Division, Bhabanipatana	1 % of approx.. Estimated Cost	Rs.6,000/	B & C / Firm	2(Two) Calendar Month

2. Mode of Submission of tender: Tender should be submitted online in **www.tendersorissa.gov.in**
3. The bidders desirous to participate in bidding must possess compatible Digital Signature Certificate of Class-II or Class-III and should follow the changes / modifications / addendum to DTCN if any.
4. The bidder should be make payment through online receipt towards Tender Paper Cost and EMD. No off line receipt of Tender Paper Cost and EMD will be allowed in e-procurement portal of Government of Odisha.
5. **Critical Dates:-**

Sl. No.	Description	Critical Dates
(i)	Period of availability of tenders on-line :	From 11.00 Hrs. of 10.09.2026 to 17.00 Hrs. of 19.09.2026
(ii)	Last date & time of seeking clarification :	UP TO 17.00 Hrs. of 17.09.2026
(iii)	Last date & time of bidding on-line :	UP TO 17.00 Hrs. of 19.09.2026
(iv)	Date & time of opening of Bid :	11.30 AM of 21.09.2026

6. The bid for the work shall remain open for acceptance for a period of **120 (One Hundred Twenty) days** from the date of opening of bids. If any Bidder / Tenderer withdraws his bid/ tender before the said period or makes any modifications in the terms and conditions of the bid, the said earnest money shall stand forfeited.
7. Other details can be seen in the bidding documents, which is available in website **www.tendersorissa.gov.in**.
8. Subsequent corrigendum if required shall be appeared in the website.
9. Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.

Sd/-
ADDL. CHIEF ENGINEER

CHECK LIST TO BE FILLED UP BY THE BIDDER

Name of the Work: - "Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality".

Sl. No	Particulars	Reference to Clause no.	Whether furnished		Reference to Page no.
			Yes	No	
01.	Cost of tender paper in case of down loading Rs.6,000.00 (Online remittance)	As per TCN			
02.	E.M.D for 1 % of Estimated Cost (Online remittance / in shape as mention in clause 23.1)	D.T.C.N Clause No.2(B)23.1			
	or E.M.D for 2 % of Estimated Cost in case of machineries/equipments owned or hired but deployed out side the State. (Online remittance)	Schedule-B			
03.	Copy of valid Registration Certificate	D.T.C.N Clause No.2(A).a.v			
04.	Copy of valid GST Registration Certificate	D.T.C.N Clause No.2(A).a.iii			
05.	Copy of PAN Card	D.T.C.N Clause No. No.2(A).a.iv			
06. (a)	Information regarding current litigation, debarring / expelling of the tender or abandonment of the work by the tenderer	Schedule-C			
(b)	Declaration	Schedule-D			
(c)	Affidavits	Schedule-E			
(d)	Structure & Organization	Schedule-A			
(e)	Tools & Plants and machineries as per the requirement in Schedule-B. (Proof of ownership of Tools & Plants and machineries is to be furnished in shape of copy of invoices / required sale deed incase of 2 nd purchase / required lease deed with owner ship documents of the leaser.	Schedule-B			
07	Construction Schedule/Bar chart	Sec-07, Clause 7.14			

CONTRACT DATA

A. GENERAL INFORMATIONS

S N	Item	Details
1	Bid Identification No.	SEPHD-BHPT– 30 OF 2026-27/ DT. 05.09.2026
2	Name of the Work.	Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality.
3	Officer inviting tender.	Additional Chief Engineer, P.H. Division, Bhabanipatana
4	Executive Engineer concerned with head quarters authorised as Engineer-in-charge of this work.	Additional Chief Engineer, P.H. Division, Bhabanipatana
5	Additional Chief Engineer with head quarter	Additional Chief Engineer, P.H. Circle, Bhabanipatana
6	Accepting Authority	Additional Chief Engineer, P.H. Division, Bhabanipatana
7	Estimated Cost	Rs. 25.34 Lakh

B. BID INFORMATION

8	Intended completion period/Time period assigned for Completion	2 (Two) Calander Months
9	Last Date & time of submission of Bid	17.00 Hrs. of 19.09.2026
10	Cost of Bid Document (To be Remitted Online)	Rs. 6,000.00
11	Bid Security (EMD) (Online remittance / in shape as mention in clause 23.1)	1 % of Approx. Estimated Cost
12	Additional Performance Security	
i)	Amount	As per Works Deptt. Office Memorandum No. 173/ W. Dt. 03.01.2026
ii)	Pledged in favour of	Superintending Engineer, P.H. Division, Bhabanipatana
iii)	Payable at	Bhabanipatana
iv)	Type of instrument	As specified in the Bid document
13	Bid validity period	120 days after opening of Bid
14	Minimum period of contract / agreement / lease deed of equipment and machineries.	2 (Two) Calander Months
15	Currency of Contract	Indian Rupees
16	Language of Contract	English

SECTION- 2(A)

DETAILS OF THE DOCUMENTS TO BE FURNISHED FOR ONLINE BIDDING

- (a) Scanned copies of the following documents to be up-loaded in appropriate place in PDF format in the website **www.tendersorissa.gov.in**.
- i. Remittance of Cost of Bid Document (Online).
 - ii. Remittance of Bid Security (EMD) (Online)/ in the shape as mentioned at Clause 23.1
 - iii. **GST Registration Certificate.**
 - iv. PAN Card.
 - v. Registration certificate.
 - vi. Affidavit / Declaration regarding : Correctness of certificates / no relation certificate/ Acceptance of tender conditions / free from criminal proceedings etc (Schedule-E & D)
 - vii. Letter of submission of tender.
 - viii. BAR CHART SHOWING SCHEDULE OF EXECUTION OF WORK
 - ix. Experience certificate
 - x. Any other relevant required document, if any.
 - xi. Non submission of any other documents as per clauses not relevant to the nature of the work as per BOQ will not be consider for rejection
- (b) Scanned Copies of the Certificates / Formats showing details of information to be furnished as per the enclosed formats should be uploaded in appropriate place after converting the same to PDF.
- Schedule A - Structure & Organisation (Not required to furnish).
- Schedule B - List of plant & equipment proposed to be deployed in the work (Not required to furnish).
- Schedule C - Information regarding current litigation/debarment etc.
- Schedule D - Declaration.
- Schedule E - Affidavit.
- Schedule F - Any other information.
- (The details of the Format is enclosed in the DTCN)
- (c) Uploaded documents of valid successful bidders will be verified with the original before acceptance of offer.
- (d) DTCN is not to be uploaded by the bidder. The bidder has to only agree / disagree on the conditions in the DTCN. The bidders, who disagree on the conditions of DTCN, can not participate in the tender.
- (e) **Cost of Bid Document will be paid on online mode** by the Bidder, failing which the bidder will be disqualified.

- (f) Cost of Bid security Amount (EMD) will be paid on online/ in the shape as mention at Clause 23 by the Bidder, failing the bidder will be disqualified.

SECTION- 2(B) **INSTRUCTIONS TO BIDDERS**

A. GENERAL

1. **Definitions:**

- a) "Employer" means the **Public Health Engineering Organisation (PHEO)** of the Government of Odisha represented by the **Superintending Engineer, P.H. Division, Bhabanipatana** or his authorised representative with whom the selected Contractor signs the contract for the services.
- b) "Contractor" / Bidder / Firm / Engineer Firm / Company carry the same meaning through out the DTCN and Contract.
- c) "Contract" means the contract / agreement signed by the parties along with all attached documents listed in the DTCN (Tender Document Part-I & II).
- d) "Data Sheet" means such part of the Instructions to Contractor as are used to reflect assignment conditions and evaluation of the bid.
- e) "Day" means a calendar day.
- f) "Government" means the Government of Odisha.
- g) "Instructions to Bidders (Section-2(B) of DTCN) means the document which provides all information needed to prepare their proposals.
- h) "TCN" (Section-1 of the DTCN) means the Letter of Invitation being sent by the Employer.
- i) "Personnel" means professionals and support staff provided by the Contractor and assigned to perform the services in full or in any part thereof.
- j) "Proposal" means the Technical Proposal and the Financial Proposal (Tender Document).
- k) "DTCN" means the Detailed Tender Call Notice prepared by the Employer for the selection of contractor.
- l) "Govt"., means Govt. of Odisha or Govt. of India as the case may be.

2. **Introduction / Selection Procedure:**

The Employer named in the Data Sheet will select a contract firm to execute the work as described in the scope of work and in the Data sheet.

The Contractor shall bear all costs associated with the execution of the work on **Percentage Rate Bids**. The Employer is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to contract award without thereby incurring any liability to the Contractor.

3. **Location of the Project:**

The place of action is at **different** area of **Bhabanipatana** in the State of Odisha.

4. **Source of Funding:**

The work will be funded by **Government of Odisha**.

5. **Eligibility:**

- 5.1. A Bidder shall be deemed to have the nationality of India.
- 5.2. Government-owned enterprises shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law.
- 5.3. **A Bidder shall be Firm / 'B & C' Class Contractor's License registered with the Odisha State Government and Contractors of equivalent grade/class registered**

with Central Government/ any other State Government/ MES/ Railways & Reputed Engineering Firms.

6. History of Litigation and Criminal Record:

- 6.1. If any criminal cases are pending against the Contractor (him / her / partners) at the time of submitting the tender, then the tender shall be summarily rejected. In such a case, the Contractor shall submit an affidavit to the effect that the history of litigation, criminal cases pending against him/her/partners furnished by him/her is true.
- 6.2. In case it is detected at any stage that the affidavit is false, he will abide by the action taken by the **Superintending Engineer, P.H. Division, Bhabanipatana** without approaching any court whatsoever for redress. He will however, be given suitable opportunity to offer his explanation before action is taken against him.

7. The Contractor has to furnish a declaration that no near relatives are working in the cadre of an Assistant Engineer / Assistant Executive Engineer and above in the Organisation of Public Health Engineering Organisation (PHEO) of State of Odisha.

8. Other Requirements:

- 8.1. Even if the Contractor meets other criteria, his tender shall be summarily rejected if he is found to have misled or made false representation in the form of any of the statements submitted in proof of the eligibility and qualification requirements.
- 8.2. The tender shall also be summarily rejected if he has a record of performance such as absconding from work, works not properly completed as per contract, inordinate delays in completion, financial failure.
- 8.3. In addition to the above, even while executing the work, if it is found that he produced false / fake, certificates in his tender, he will be blacklisted.
- 8.4. The bidders who have in last 3 financial years applied for / are undergoing Corporate Debt Restructuring (CDR)/Strategic Debt Restructuring (SDR) or facing recovery proceeding from Financial Institutions or those are facing Sickness and under consideration of Board for Industrial & Financial Reconstruction (BIFR) are not eligible for qualification. Self declaration Certificate by the bidder in the form of affidavit is to be submitted.

9. Original Certificates:

Original documents/certificates shall be produced as and when required to verify the copies of statements and other information furnished along with tender. Failure to produce original documents in time will lead to disqualification.

10. Cost of Tendering:

The Contractor shall bear all expenses associated with the preparation and submission of his tender. **Superintending Engineer, P.H. Division, Bhabanipatana** shall in no case be responsible or liable for reimbursement of such expenses.

11. Site Visit:

The contractor is advised to visit and examine the **site** area and its surroundings and obtain for himself all information that may be necessary for preparing the tender and quoting rates at his cost and responsibility.

B. TENDER DOCUMENTS

12. **Tender Documents:**

- 12.1. A set of Tender Documents comprising of the DTCN & BOQ includes the following together with all Addenda thereto, which may be issued in accordance with **Clause 2(B) 13 and Clause 2(B) 14.**

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Section-2 (C)	Data Sheet
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Section-2 (E)	Tender Declaration
Section-2 (F)	Letter Of Acceptance Of Tender
Section-2 (G)	Memorandum
Section-3	Information Regarding Tenderer
Section-4	Declaration by the Tenderer
Section-5	Form of Agreement
Section-6	Conditions of Contract
Section-7	Special Conditions of Contract
Section-8	Scope of Work
Section-9	Technical Specifications & Design Criteria
Schedule-A to F	Formats for furnishing Information by the Bidder
Annexure-I	Guidelines/Procedure to be followed in introduction of e-Procurement in Govt. of Odisha
<i>Appendix - II</i>	Procedure for Electronic Receipt, Accounting and Reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids
DTCN Part – II: Bill of Quantity	

- 12.2. The Contractor is expected to examine carefully all instructions, terms of reference, tender conditions, forms, appendices to tender, addenda in the tender documents. Failure to comply with the requirements of tender submission will be at the contractor's own risk.

13. **Clarification of Tender Documents:**

The Contractor shall carefully examine the tender documents and be fully informed of all the conditions and matters, which may in any way affect the work or the cost thereof. Should a Contractor find any discrepancy in or omission from the specification or any other of the tender documents or should he be in doubt as to their meaning, he should immediately address a clarification online **as per the critical dates mentioned in the DTCN.**

14. **Amendment of Tender Documents:**

- 14.1. At any time prior to the dead line for submission of tenders, **Superintending Engineer, P.H. Division, Bhabanipatana** may for any reason, whether at its own initiative or in response to the clarifications requested by the prospective Contractor, modify the tender documents by issuing an Addendum.
- 14.2. Such addenda will be notifying in the website and will be binding upon them.

- 14.3. In order to afford prospective Contractor reasonable time to take such addenda into account in preparing their tenders, **Superintending Engineer, P.H. Division, Bhabanipatana** at his discretion, may extend the dead line for the submission of tenders, if necessary.

C. PREPARATION OF TENDER DOCUMENT

Guidelines for preparation of bids on line mode has been issued by Government in Works Department letter No.1027 dated 24.01.09 and appended at last part of this document. The bidders are required to go through the procedure before preparation of bids.

15. **Language of the Documents:**
All documents relating to the Tender shall be in the English language.
16. **Documents Comprising the Tender:**
(a) Detailed Tender Call Notice(DTCN)
(b) Bill of Quantities.
(c) All documents stipulated elsewhere in the DTCN.
17. **Sufficiency of Tender:**
The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the services to be provided and of the prices quoted in the financial bid, which shall cover all his obligations under the contract and all matters and things necessary for the successful accomplishment of the work.
18. **Preparation of Proposal:**
18.1. The Proposal [see Section-2(B) Clause 1(J)] as well as all related correspondence exchanged by the employer & the Contractor shall be written in the language specified in the Data Sheet.
18.2. In preparing the proposal, the Contractor is expected to examine in detail the documents comprising the DTCN. Material deficiencies in providing the information requested may result in rejection of a proposal.
18.3. **Site Inspection by tenderer.**
The tenderer shall inspect the site at his own cost and shall satisfy himself with regard to the nature and extent of the work involved, the actual site conditions, existing facilities and shall collect any other information which may be required before submitting the tender. Any further data required during execution of the work / scheme shall be ascertained by the contractor at his own cost.
19. **Technical Proposal Format and Content:**
The Contractor should have sufficient man power to execute & complete the work within the time schedule. He should have sufficient financial background / machinery and equipment required for execution of the work / free from litigation / have good working record of completion of the works in time. It may be noted that the contractor should satisfy the minimum eligible criteria for award of Contract. The Technical Proposal shall provide the information indicated in the following paragraphs [clause 2(B) 19.1 to 2(B)19.8] using the attached Standard Forms. A page is considered to be one printed side of A4 or letter size paper.
19.1 The Contractor has to furnish the structure & organisation details in Schedule-'A'.
19.2 A description of the approach, methodology and work plan for performing the assignment.
19.3 The list of the key machinery & equipment to be deployed in the work with owner proof or agreement with the rightful owner in Schedule- 'B'.
19.4 Copy of GST Registration Certificate.
19.5 Copy of PAN Card.
19.6 Copy of Contractor's Registration Certificate.
19.7 General Power of Attorney if required in favour of the authorised signatory.
19.8 Other information as required.
20. **Bill of Quantities:**
20.1. The Contractor shall quote his rates on prescribed form of the Bill of Quantities (BoQ) already supplied in the Tender.
20.2. The offer shall be inclusive of all costs associated with the assignment including cost of all materials to be utilized **as per scope of work** cost of T&P, consumables, infrastructure backup etc. The offer shall also be inclusive of all duties, levies, taxes of the Central and State Govt. Further it shall also include all

- other expenses incidental thereto for successful accomplishment of the assignment in conformity with the DTCN.
- 20.3. The contractor should make realistic assessment of the exhaustive nature of work and the extent of expert technical and managerial inputs and resources required to carry out the work diligently to complete the work within the stipulated time and quote their offer accordingly.
- 20.4. The rate quoted by the firm shall be firm.
21. **Tender Validity:**
- 21.1. The proposal must remain valid for **120 (One Hundred Twenty)** days from the date of opening of Bid.
- 21.2. A Contractor agreeing to the request of extending the validity period of the proposal will not be required or permitted to modify his tender, but will be required to extend the validity of his EMD.
22. **Authorisation, Corrections, Erasures etc. in Tender Papers:**
- 22.1. The tender document shall be digitally signed by a person duly authorized to do so. Proof of authorization shall be furnished in the form of a certified copy of Power of Attorney, which shall accompany the tender.
- 22.2. The completed tender shall be submitted without any alterations, inter-relations or erasures except those which accord with instructions given by the **Superintending Engineer, P.H. Division, Bhabanipatana**.
- 22.3. Only one tender shall be submitted by a contractor. Submission of bids through e-Procurement portal the system shall consider only the last bids submitted through portal.
23. **Earnest Money Deposit / ISD / SD / Additional Perform Security & GST Registration:**
- 23.1. **Earnest Money Deposit:**
Security for the due fulfilment of a contract should invariably be taken. The security may be taken in shape of NSC/ Post office saving bank account/ post office time deposit account/ Kisan Vikash Patra/ Bank Guarantee (Schedule-J) in favour of The Superintending Engineer, PH Division, Bhabanipatana form any Nationalised Scheduled Bank in India counter Guaranteed by its local branch at Bhabanipatana/ Bhubaneswar/ Nuapada/ e- Bank Guarantee executed on the National e- Governance Service4 Limited (NeSL) Digital Document Execution Portal towards EMD/ ISD/ Any other Security Deposit from the contractor or supplier (Works Deptt. OM No 1499/W dtd 01.02.2023)
- 23.2. **Return of EMD:**
The Bank will remit the **Earnest Money Deposit on submission/ cancellation of bids** to respective bidders accounts as per direction received from TIA through e-procurement system.(as per the Appendix-II of DTCN).

The earnest money given by other two parties (L₂ & L₃) except one whose tender is accepted shall also be refunded within 15 (fifteen) days of the acceptance of the tender on application / request.

EMD shall also be returned to the unsuccessful bidders of General & Technical Bid (Part –I of tender documents) after finalisation of its evaluation or last date of the tender validity period whichever is earlier on application/request.
- 23.3. **Initial Security Deposit:**
The successful Tenderers, after receipt of formal order shall have to furnish Initial Security Deposit (ISD) equal to 2% (two percent) of the accepted value of the tender in shape of NSC/Postal Saving Pass Book /Post Office Time Deposit /Kishan Vikash Patra/ Bank Guarantee in Schedule Bank duly pledged in favour of the **Superintending Engineer, P.H. Division, Bhabanipatana** Payable at **BHABANIPATANA** within 7(seven) days of receipt of intimation failing which their tender shall be cancelled with the forfeiture of EMD.
- 23.4. **Additional Performance Security: (As per Works Deptt. Office Memorandum No. 173/ W. Dt. 03.01.2026)**
N.B. Latest amendment in this regard will be binding to the bidders participating in the bid.
On intimation from the tender inviting authority, the Successful bidder shall submit the required amount of Additional Performance Security in shape of NSC/ Postal Saving Pass Book /Post Office Time Deposit /Kishan Vikash Patra /Bank Guarantee in Scheduled Bank duly pledged in favour of **Superintending Engineer, P.H. Division, Bhabanipatana** Payable at **Bhabanipatana** before issuance of Letter of Acceptance (LoA).

- 23.5. **GST Clearance Certificate:**
Tenderers are required to submit attested copies of valid and up-to-date GST Clearance/ GST Registration Certificates along with their tenders, failing which their tenders will not be considered.
- 23.6. **Security Deposit**
In addition to that 5% of gross value will be deducted from bill(s) of the contractor toward Security Deposit (SD) which will be refunded after the defect liability period subject to payment of final bill.
- 23.7. The EMD shall be forfeited, if, (a) a contractor withdraws the tender during the validity period of tender or (b) if the firm fail to furnish ISD within due time or (c) the successful tenderer fails to sign the Agreement for whatever reason.
- 23.8. In consideration of the Executive Engineer / SUPERINTENDING Engineer / Chief Engineer / Engineer-in-Chief / Government to investigate and to take into account each tender and in consideration of the work thereby involved, all earnest money deposited by the tenderer will be forfeited in the event of such tenderer either modifying or withdrawing his tender at his instance within the validity period.
24. **Signing of Tenders / Bid**
All tender documents will be signed digitally with Digital Signature Certificate (DSC). The online bidder shall digitally sign on all statements, documents, certificates, uploaded by him, owing responsibility for their correctness / authenticity as per IT Act'2000. If any of the information furnished by the bidder is found to be false / fabricated / bogus, his EMD / Bid security shall stand forfeited and the bidder is liable to be blacklisted.
- 24.1 If the tender is made by an individual, it shall be signed with his own Digital Signature Certificate (DSC).
- 24.2 If the tender is made by a corporation / company, it shall be signed by a duly authorized officer who shall produce with his tender satisfactory evidence of his authorization. Such a corporation / company may be required before the contract is executed, to furnish evidence of its corporate existence.
The tender shall contain no alterations or additions, except those to comply with instructions issued by the Tender Inviting Officer, or as necessary to correct errors made by the Tenderer, in which case all such corrections shall be digitally signed.
- 24.3 No alteration made by the tenderer in the contract form, the conditions of the contract, statements / formats accompanying the tender shall be recognized and in case of any alterations made by the tenderer, the tender will be void.
- 24.4 All documents furnished by the contractor along with the tender are to be digitally signed by the bidder.
25. **Clarification on and Amendment to DTCN Document:**
- 25.1. Contractor may request a clarification to any clause of the DTCN documents up to the number of days indicated in the Data Sheet before the proposal submission date. Any request for clarification must be sent online in the portal. The Employer will respond to this online through the same portal. Should the Employer deem it necessary to amend the DTCN as a result of a clarification, it shall do so following the procedure under para.2 (B) 25.2.
- 25.2. At any time before the submission of Proposals, the Employer may amend the DTCN by issuing an addendum/corrigendum which shall be published in the portal. The addendum/corrigendum shall be binding for the bidders. To give the bidders a reasonable time to take into account the amendment into their proposals the Employer may, if the amendment is substantial, extend the deadline for the submission of proposals. The purpose of this is to clarify issues on any matter, a tenderer may raise concerning the tendering of the works.

D. SUBMISSION OF TENDERS

- 26 In view of adoption of e-procurement process pursuant to Government of Odisha in Works Department Office Memorandum No.FA-R-3/08-4657/W dated 12.03.2008, 4666/W dated 12.03.2008 & 1027/W Dt.24.01.2009 following changes/ modification/ addendum shall be effected.

26.1. **Bid Documents:**

Bid documents consisting of DTCN & BOQ shall be provided in the portal. Submission of bids will be through the e-Procurement portal. The bidders shall prepare the documents & up load the scanned document to the portal in appropriate place in PDF format.

26.2. **Documents Comprising the Bids:**

In case of submission of Bids through the e-Procurement Portal, the bidder can submit the scanned copy of the documents in the designated locations of the DTCN & BOQ. Submission of document shall be effected using Digital Signature Certificate (DSC) of appropriate class and thus shall be in encrypted form.

26.3. **Bid Price: (BoQ)**

Bill of Quantity in Microsoft Excel format shall be made available to the bidder. The bidder shall download that particular Excel sheet and fill in rates in figures at the appropriate location. The bidder will only fill in the designated cell and activate "less" or "excess" to indicate whether his price offer is how much excess or less than the estimate amount. **The bidder is not supposed to change or modify the format of the excel sheet in any form.**

26.4. **Bid Security/EMD:**

(i) The bidder shall remit bid security for the amount shown in Col. 5 of the table of Notice Inviting Tender (NIT) **on online mode** / in the shape as mentioned at Clause 23

(ii) The EMD will be forfeited in any of the following case.

- a) If the Bidder withdraws the Bid after Bid opening during the period of Bid validity.
- b) If the Bidder does not accept the correction of the Bid Price.
- c) In the case of a successful Bidder, If the Bidder fails within the specified time limit to
 - i) Sign the Agreement / contract or
 - ii) Furnish the required ISD and Performance Security.
- d) In case of submission of Bids through the e-Procurement Portal, if any of the statements, documents, and certificates up loaded by the bidder is found to be false/ fabricated/ bogus, the bidder will be blacklisted and his EMD/ Bid Security shall be forfeited.

26.5. **Submission of Bid:**

In case of submission of bids through e-Procurement portal on the bidder shall upload the scanned copy/copies of documents as required as per DTCN. The on line bidder shall have to produce the original documents in support of scanned copies & statements up-loaded in the portal on demand by the employer prior to award of contract-failing which action as per DTCN will be initiated.

In case of submission of Bids through the e-Procurement Portal, the bidder shall only submit single copy of the document. He is required to check the documents uploaded with the requirement asked for in the bid. Only after satisfying that all the documents have been uploaded, he should activate submit button. His bids shall not be considered responsive and action as per relevant clause shall be taken if he does not provide the required documents or provided illegible document. Clarity of the document may be ensured by taking out a sample printing.

26.6. **Late Bids:**

In case of submission of Bids through the e-Procurement Portal, the system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the portal time displayed in the system shall be the time to be followed by the bidder.

27. **Modification & Withdrawal of Bid:**

In case of submission of Bids through the e-Procurement Portal, it is allowed to modify the bid. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid. In doing so, the bids already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam. If the bidder fails to submit his modified bids with in the designated time of receipt, the bids already in the system shall be taken for evaluation.

In case of submission of Bids through the e-Procurement Portal, withdrawal of bid is allowed. The bidder has to click on the "withdraw" button and record the necessary justification for the same in the space provided. In addition to this, he has to write a letter addressed to the Officer inviting the bid and up load the scanned document to portal in respective bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

28. **Bid Opening:**

In case of submission of Bids through the e-Procurement Portal, the bidders who participated in the online bidding can witness opening of the bid from any system logging on to the portal away from opening place. The bids can only be opened by the pre-designated officials only after the opening time mentioned in the bid.

29. **Award of Work:**

In case of submission of Bids through the e-Procurement Portal, the system shall generate the Award of Contract letter and intimate the bidders in his e-mail.

E. TENDER OPENING AND EVALUATION

30. **Tender Opening:**

30. **Tender Opening:**

30.1 The Superintending Engineer, **P.H. Division, Bhabanipatana** will open the tenders electronically on the date & time mentioned in the **Notice Inviting Tender (NIT)**.

30.2 a) A tender shall be rejected

(i) Price Bid is not enclosed.

(ii) Cost of tender document has not remitted online on submission of bid.

(iii) EMD as per Clause 23.1, Section 2(B) has not remitted online/submitted

(b) In case if the bidder has not submitted following document with the bid due to any reason, clarification may be sought and queries may be issued to the bidders for submission of the same with a stipulated period, failing which their offer shall be liable for rejection.

- I. There are any criminal cases pending.
- II. PAN is not enclosed.
- III. Affidavit is not enclosed.
- IV. Power of Attorney is not enclosed.
- V. Record of litigation and arbitration is not enclosed.
- VI. Other documents as required not enclosed.
- VII. GST Registration Certificate & GSTIN

30.3. The **Superintending Engineer, P.H. Division, Bhabanipatana** may prepare, for his own record, minutes of the tender opening, including the tender opening summary which shall be posted in the portal.

31. **Clarification on Tenders from Tenderers:**

To assist in the scrutiny, evaluation and comparison of the tenders, the **Superintending Engineer, P.H. Division, Bhabanipatana** may ask contractor individually for clarification on their tenders. The request for clarification and response shall be in writing or by mail. However, no change in the tender amount/ rate or substance shall be sought, offered or permitted by the **S.E., P.H. Division, Bhabanipatana** during the evaluation of the tenders.

32. **Determination of Responsiveness:**

32.1 Prior to the detailed evaluation of tenders, **Superintending Engineer, P.H. Division, Bhabanipatana** will determine whether each tender has been submitted in the proper form and whether it is substantially responsive to the requirements of the tender documents.

32.2 Any tender which is not substantially responsive to the requirements of the tender documents as mentioned in 30.2(A) will be rejected by the **Superintending Engineer, P.H. Division, Bhabanipatana**; such a tender shall not be allowed subsequently to be made responsive by the contractor by correcting or withdrawing the non-conforming deviation(s) or reservation(s).

33. **Proposal Evaluation:**

33.1 From the time of the proposals are opened to the time, the contract is awarded, the contractor should not contact the client on any matter related to its proposal except any required in Clause-2(B)31.

33.2 Any effort by a bidder to influence the client in any form directly or indirectly during the examination, evaluation, ranking of proposals, and recommendation for award of the contract may result in the rejection of the contractor's proposal.

33.3 **Evaluation of the Bid:**

33.3.1 The Evaluation Committee shall evaluate the Bids on the basis of their responsiveness to the DTCN.

33.3.2 A Bid shall be rejected at this stage if it does not respond to required aspects of the TCN / DTCN.

33.3.3 The bids determined to be substantially responsive will be checked by the employer for any arithmetic error(s).

33.3.4 The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount or between words and figures, the amount in words will prevail.

33.3.5 If the bid price increases as a result of these corrections, the amount as stated in the bid will be the bid price and any increase will be treated as rebate. If the bid price decreases, the decreased amount will be treated as bid price.

33.4 **Selection of Contractor:**

As per Government of Odisha Works Department Office Memorandum No. 07764600022025 173 W., Bhubaneswar Dt. 03/01/26

In case of Percentage Rate Contract, the contractor shall write percentage excess or less up to one decimal point only. If he writes the percentage excess or less up to two or more decimal points, the first decimal point shall only be considered without rounding off. **(As per Para No. 3.5.5.(V) of OPWD Code Vol-I).**

- (a) An intelligent BOQ in MS Excel format shall be made available to the bidder through e-procurement portal. The bidder shall download that particular excel sheet and fill in the rates both in words and figures for all items at the appropriate location. The bidder is not supposed to change or modify the format of the excel sheet in any form.
- (b) In percentage rate contracts the schedule of quantities shall mention estimated rate of each item and amount thereto. The tenderer has to mention percentage excess over/ less than the estimated cost (in figures and words) in the prescribed format appended to the tender document. The tenderer who participates in the tender for more than one work will offer conditional rebate. Rebate offer submitted in separate sealed envelope shall be opened, declared and recorded first. The rebate offered shall be considered after opening of all packages called in the tender notice. The tenderer who wish to tender for two or more work shall submit separate tender for each. Each tender shall have the name and number of the works to which they refer, written on the envelope.

In the percentage rate tenders, only percentage quoted shall be considered. Percentage quoted by the tenderer shall be accurately filled in figures and words, so that there is no discrepancy. If any discrepancy is found in the percentage quoted in words and figures, then the percentage quoted by the tenderer in words shall be taken as correct. If any discrepancy is found in the percentage quoted in percentage excess/less and total rate quoted by the tenderer then percentage will be taken as correct. The percentage rate quoted in the tender without mentioning excess or less and not supported with the corresponding amount will be treated as excess. The tenderer will write percentage excess or less up to two decimal point only. If he writes the percentage excess or less up to three or more decimal point, the first two decimal points shall only be considered without rounding off. Where the tenderer has omitted to quote the Percentage rates either in figures or in words, the Officer opening the tender should record the omission.

- (c) The quantity mentioned in the BOQ can be increased or reduced to the extent of 10% for individual items subject to maximum of 5% over the estimated cost. If it exceeds this limit prior approval of competent authority is mandatory before payment
- (d) The period of completion is fixed and cannot be altered except in case of exceptional circumstances with the due approval from next higher authority.

34. **Negotiations:**

Negotiations will be held if required with the lowest valid tenderer. In the event of the L₁ tenderer has furnished any condition which grossly affects the tender value / contains such conditions which make the value of the offer indefinite, he may be given an opportunity to withdraw such condition(s) to make the tender definite. Failure to withdraw such condition(s) may lead to rejection of the tender as in consistent / non responsive. In such case the employer may explore the possibility of considering the next valid tender as L₁.

If L₁ bidder does not turn up for agreement after finalisation of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to black list the contractor. In case, the L₂ bidder, if fulfils, other required criteria would be called for drawing agreement for execution of work subject to condition that L₂ bidder negotiates at par with the rate quoted by the L₁ bidder otherwise the tender will be cancelled. **(As per the Government of Odisha, Works Department Office Memorandum No.12366 dated 08.11.2013 on amendment to Para No. 3.5.14, Note-I of OPWD Code Vol-I, by inclusion.)**

F. AWARD OF CONTRACT

35. **Award Criteria:**

- 35.1. After acceptance of the bid by competent authority, the selected contractor will be intimated about such acceptance.
- 35.2. The contractor is expected to commence the work on the date and at the location specified in the Data Sheet.

36. **Right to Accept or Reject any or all Tenders:**

Notwithstanding Clause 2(B)35, the Superintending Engineer, P.H. Division, Bhabanipatana / Addl. Chief Engineer, PH Circle, Bhabanipatana / Chief Engineer, P.H.(Urban), Odisha, Bhubaneswar/ Engineer-In-Chief (PH), Odisha, Bhubaneswar/ Government of Odisha reserves the right to accept or reject any tender, annul the

tendering process, reject all tenders at any time or any stage prior to the award of contract without thereby incurring any liability to the affected bidders.

37. **Process to be Confidential:**

37.1. After the opening of tenders as per Clause 2(B)30 & 2(B)33, information relating to examination, clarification, evaluation and comparison of tenders and recommendations, concerning to the award of contract shall not be disclosed to the contractor or any other persons, officially not concerned with the process, until the award of the contract to the successful contractor has been announced.

37.2. Any effort by any contractor to influence the Department officials in scrutiny, clarification, evaluation and comparison of tenders, and in any decisions concerning award of a contract, may result in the rejection of their Tender.

38. **Notification of Award & signing of Agreement:**

- a) The Employer/ Engineer-in-charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This Letter of acceptance will state the sum that the Engineer-in-charge will pay the contractor in consideration of the execution & completion of the works by the contractor as prescribed by the contract & the amount of performance security and additional performance security required to be furnished. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
- b) The contractor after furnishing the required acceptable performance security and additional performance security, "Letter to Proceed" or "Work Order" shall be issued by the Engineer-in-charge with copy thereof to the procurement Officer-Publisher. The Procurement Officer-Publisher shall upload the summary and declare the process as complete.
- c) In the e-Procurement Portal, the system shall generate the template of award letter and the Officer Inviting the Bid shall mention the amount of Performance Security and additional security required to be furnished in the letter and intimate the bidders in his e-mail ID. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
- e) The bidder shall within 15 days of issue of letter of acceptance, furnish the Performance security & additional Performance security (if any) in the prescribed form & the work programme & shall sign the agreement in prescribed format, failing which the Engineer-in-Charge shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the Bid Security absolutely. The agreement will incorporate all agreements between the officer inviting the bid and the successful bidder.
- f) If L1 bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. In that case, the L2 bidder, if fulfils, other required criteria would be called for drawing agreement for execution of work subject to the condition that L2 bidder negotiates at par with the rate quoted by the L1 bidder otherwise the tender will be cancelled. In case a contractor is black listed, it will be widely published and intimated to all departments of Government and also to Govt. of India agencies working in the state.
(Amendment to Para-3.5.14 Note-I of OPWD Code Vol.-I by inclusion)
- g) **Following documents shall form part of the agreement**
 - i. The notice inviting bid, all the documents including additional conditions, specifications and drawings, if any, forming the bid as issued at the time of invitation of bid and acceptance thereof together with any correspondence & documents leading thereto & required amount of performance security including additional performance security as per sub clause 37.B.e. hereof.
 - ii. Standard Bid Document P.W.D. Form P-1.
 - iii. The letter to proceed with the work shall be issued by Engineer-in-charge only after signing of the agreement. The notification of award will constitute the formation of the contract subject only to the furnishing of performance security and additional performance security in accordance with the provisions of the agreement.
 - iv. On acceptance of the composite bids by the competent authority the letter of award will be issued by the Engineer-in-Charge of the major component of the work on behalf of the Governor of Odisha.

SECTION- 2(C)

DATA SHEET

Ref Cl. No.	Description
	Name of the Work: - "Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality" .
Section-8	Scope of Works: - As per details specified in the BoQ.
2(B)1.(a)	Name of the Employer: Superintending Engineer, P.H. Division, Bhabanipatana under Housing & Urban Development Deptt., Govt. of Odisha, Bhubaneswar.
2(B)33.4	Method of selection: Qualifying in the Bid (L₁).
2(B)26.	Single Bid System: To be submitted as detailed at Clause-2(B)26.
2(B)15.	Proposals shall be submitted in the following language: English
2(B)21.	Offers must remain valid for 120 (One Hundred Twenty) days after the date of opening of Bid.
2(B)25.1	Clarifications may be requested on-line till 17.00 Hrs. of 17.09.2026
2(B)30	The tender will be opened on following date and time: Dt.11.30 Hrs. of 21.09.2026

SECTION –2 (D)

LETTER FOR SUBMISSION OF TENDER

[To be filled in by the Bidder]

<i>Note:- (1)</i>	<i>Additional conditions appended to the tender will make the tender liable for rejection.</i>
<i>(2)</i>	<i>Non-submission of EMD in proper shape and other required documents as detailed hereinafter shall make the tender liable for rejection.</i>

Ref. No. _____/Dated _____

To

**The Superintending Engineer,
P.H. Division, Bhabanipatana
Dist. Kalahandi, Odisha.**

Sub:

Tender for the Work – **Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality”.**

Ref:

Identification No. **SEPHD-BHPT– 30 OF 2026-27/ DT. 05.09.2026**
published in the website www.tendersorissa.gov.in.

Dear Sir,

With reference to the above, we are to inform you that in response to your above referred TCN, we have downloaded the Detailed Tender Call Notice (DTCN) Part-I & II and that after having thoroughly examined the same, we hereby tender for the work to execute the work within the stipulated time and in conformity with the relevant clauses of the DTCN along with all related statutory rules and regulations for the amounts as quoted in the accompanying BOQ.

2) I/We have studied, acquainted and satisfied ourselves with the site and its working conditions for the successful and timely completion of the work.

3) I/We are submitting herewith Bar Chart to complete the work in time.

4) Our offer is unconditional and is in conformity with the requirements of the DTCN. We understand that any additional condition put by us in the tender shall make our tender liable for rejection.

5) I/We understood that you are not bound to assign any reason in case of rejection of our tender.

6) I/We agree to keep our offer open for a minimum of **120 (One Hundred Twenty)** days from the date of opening of the Bid. Further extension of validity will be our prerogative.

Should this tender be accepted, we hereby agree to abide by and fulfil all the terms and provisions of this Detailed Tender Call Notice (DTCN).

Thanking you.

Yours faithfully,

Name and Signature
of the authorised signatory
along with seal and address of the firm.

SECTION-2 (E)

TENDER DECLARATION

[To be filled in by the tenderer]

I/We hereby tender for the execution for the Governor of Odisha of the work specified in the enclosed memorandum at the rates given in the price bid and will complete the said work in all respects within the period as specified in the Detailed Tender Call Notice and in accordance with the specifications, designs and drawings and other documents referred to therein, which shall have to be approved by the Public Health Engineering Department (PHED), Odisha, and such other written instructions as may be given by the PHED, Odisha from time to time for duly carrying out of the said works and with such materials as are provided for in accordance with the conditions and special conditions hereto attached. I/We have inspected the work site and studied its conditions, labour, materials and have understood the tender implications fully.

Should this tender be accepted I/We hereby agree to abide by and fulfil all the terms and provisions of the said conditions and special conditions of the contract annexed hereto or in default thereof to forfeit and pay to the Governor of Odisha the sums of money mentioned in the said conditions and in the event of such default the transaction effected by this tender shall cease and determine.

Signature of Tenderer /
Contractor
(Seal)

SECTION-2 (F)

LETTER OF ACCEPTANCE OF TENDER

(To be filled in by SUPERINTENDING Engineer, P.H. Division, Bhabanipatana)

The above tender is hereby accepted by me on behalf of the Governor of Odisha.

**Additional Chief Engineer,
P.H. Division, Bhabanipatana**
Signed on behalf of the
Governor of Odisha

SECTION-2 (G)

MEMORANDUM

(To be filled in by the contractor during signing of Agreement)

1.	Name of the work		Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality.
2.	Approximate Cost	:	Rs. 25.34 Lakh
3.	Accepted tender Value	:	_____ Lakh
4.	Earnest Money Deposit	:	_____
5.	Initial Security Deposit (@ 2% of the accepted tender Amount including earnest money).	:	_____ Lakh
6.	Percentage to be deducted from each Bill as security deposit	:	@5 (Five)%
7.	Time allotted for completion of the work (from the date of written order to commence)	:	2 (Two) Calander Months
8.	Date of written order to commence.	:	
9.	Total number of items of work tendered for (as per schedule attached hereto).	:	

Signature of Tenderer / Contractor

SECTION –3

INFORMATION REGARDING TENDERER

(To be filled in by the Tenderer)

A. In case of individuals:

- i. Name of Tenderer :
- ii. Whether his business is registered :
- iii. Date of commencement of business :
- iv. Whether he pays income tax each year. :
If yes, furnish particulars.

B. In case of Partnership Firm :

- i. Names of Partners :
- ii. Whether partnership is registered. :
- iii. Date of establishment of the firm. :
- In case, income tax is paid by each
Partner, the details to be furnished. :

C. In case of limited Liability Company :

- i. Amount of paid up capital. :
- ii. Names of Directors. :
- Date of registration of the
Company. :
- iv. Copies of the last three year's balance
sheets of the Company. :

Signature of the Tenderer

SECTION-4

DECLARATION BY THE TENDERER

1. I have visited the site and have fully been acquainted myself with the local situation regarding materials, labour and the factors pertaining to the work before submitting the tender.
2. I have carefully studied the conditions of the contract, specification and other documents of this work and I agree to execute the same accordingly.
3. I solemnly pledge that I shall be sincere in discharging my duties as responsible contractor and complete the work within the prescribed time limit. I shall submit detailed construction programme with target dates for various items and stages of work keeping in view the time limit and shall accordingly arrange for necessary labours, materials, and equipments etc., punctually. In case there are deviations from the construction programme, I shall abide by the decision of the Engineer-in-charge for revision of the programme and shall arrange for labour, materials, equipments etc
4. I shall follow all rules and regulations of the state in force with regard to engagement of labour for the work.
5. The documents furnished with the tender are correct to the best of my knowledge and belief and if any information found to be incorrect in future, the Department has the liberty to take any action as deemed fit.

Signature of the Tenderer

SECTION – 5

FORM OF AGREEMENT

This contract made theday of..... to
..... between the Governor of Odisha acting through (designation) Ministry
of Department ofGovernment of Odisha (address) (name and
address of employer) (hereinafter called "the employer" and
.....
(name and address of contractor) (hereinafter called "the Contractor") of the other party).

WHEREAS the Employer is desirous that the contractor executes.

.....
.....
..... (Name and identification number of contract) (hereinafter called "the
Works") and the employer has accepted the Bid by the contractor for the execution and
completion of such works and the remedying of any defects therein, at a contract price of
Rs.....

NOW, THEREFORE IT IS HEREBY AGREED BETWEEN THE PARTIES AS FOLLOWS:

1. In this contract, words and expressions shall assume the same meanings as are respectively assigned to them in the conditions of Contract hereinafter referred to and they shall be deemed to form and be read and construed as part of the Agreement.
2. In consideration of the payments to be made by the employer to the contractor as hereinafter mentioned, the contractor hereby covenants with the Employer to execute and complete the works and remedy the defects therein in conformity in all aspects with the provision of the contract.
3. The Employer hereby covenants to pay the contractor in consideration of the execution and completion of the works and in remedying the defects wherein the contract price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this contract, viz:
 - i) Letter of acceptance
 - ii) Notice to proceed with the works
 - iii) Contractor's bid
 - iv) Bidding data
 - v) General conditions of contract (including special conditions of contract)
 - vi) Specifications
 - vii) Drawings
 - viii) Bill of quantities

- ix) Any other documents listed in the contract data as forming part of the contract.
- x) Drawing and design of structure(s) or part thereof submitted by the tenderer and duly approved by the competent authority after this Agreement.

IN WITNESS WHEREOF the parties have caused this contract to be executed the day and year first before written.

Binding signature of employer signed by.....
(for and on behalf of the Governor of Odisha)

Binding signature of Contractor signed by.....(for and on
behalf ofduly authorised vide Resolution No.....
dated..... of the Board of Directors of)

In the presence of
(Witnesses)

1.

2.

Contractor

Executive Engineer

SECTION-6

CONDITIONS OF CONTRACT

6.1. Decision of Executive Engineer is Final:

The party whose tender is accepted hereinafter called the contractor is to provide everything of every sort and kind (with the exceptions noted in the schedule attached) which may be necessary and requisite for the due and proper execution of the several works included in the contract according to the true intent and meaning of the drawings and specification taken together, which are to be signed by the **Superintending Engineer, P.H. Division, Bhabanipatana**, herein after called the Executive Engineer and the contractor whether the same may or may not be particularly described in the specification or shown on the drawing provided that the same are reasonably and obviously to be inferred there from and in case of any discrepancy between the drawings and the specifications the Executive Engineer is to decide which shall be followed.

6.2 Amendment of Errors during Progress of Work:

The contractor is to set out the whole of the works in conjunction with an officer to be deputed by the Executive Engineer and during the progress of the works to amend on the requisition of the Executive Engineer any errors which may arise therein and provide all the necessary labour and materials for doing. The contractor is to provide all plant labour and materials (with the exception noted in Schedule), which may be necessary and requisite for the works. All materials and workmanship are to be the best of their respective kinds. The contractor is to leave the works in all respects clean and perfect at the completion thereof.

6.3. Fair Wage Clause:

The contractor shall not employ for the purpose of this contract any person who is below the age of fourteen years, and shall pay to each labourer, for the work done by such labourer, fair wages. Fair wages means wages whether for time or piecework, prescribed by the State P.W.D. provided that where higher rates have been prescribed under the minimum wages Act, 1948, wages at such higher rates should constitute fair wages.

The Executive Engineer shall have the right to enquire into and to decide any complaint alleging that the wages paid by the contractor to any labourer for the work done by such labourer is less than the wages paid for similar work in the neighbourhood.

The Officer-in-charge of the work shall have the right to decide whether any labourer employed by the contractor is below the age of fourteen years and to refuse to allow any labourer whom he decides to be below the age of fourteen years, to be employed by the contractor.

- 6.4. **Approved Drawings & Specification of Site with Contractors Agent:**
Complete copies of the drawing and specifications signed by the Executive Engineer and the same or copies thereof are to be kept with the works in-charge of the contractor's agent which is to be constantly kept on the ground by the contractor and to whom instructions can be given by the Executive Engineer.
- 6.5. **Work not to be Sublet:**
The work should not be sublet. During execution of work if it is found that the work/ part of the work is sublet, the Executive Engineer may there upon by notice in writing, rescind the contract and the **Security Deposit of the Contractor shall thereupon stand forfeited** and be absolutely at the disposal of Government. In addition, the contractors shall not be entitled to recover or be paid for any work thereafter actually performed under the contract.
- 6.6. **Deviation from Approved Drawing and Specifications:**
The contractor is not to vary or deviate from the drawings or specifications or execute any extra work of any kind whatsoever unless upon the authority of the Executive Engineer to be sufficiently shown by any order in writing, by any plan or drawing expressly given and signed by him as an extra or variation or by any subsequent written approval signed by him. In case of daily labour all vouchers for the same are to be delivered to the Executive Engineer or the Officer-in-Charge at least during the week following that in which the work may have been done and no day work shall be allowed unless authorised by the Executive Engineer and no such authority shall be given if the work is capable of being measured and being paid for at an agreed rate.
- 6.7. **Rate for Extra Work.**
Any authority given by the Executive Engineer, for any alterations or additions in or to the works, is not to vitiate contract. But all additions omissions or variations made to the approved design & drawing or to the item-wise indicative quantities of the work, reflected at **Section-08 (Scope of work) of the DTCN**, in carrying out the works are to be measured and valued and certified by the Executive Engineer, and shall be added to or deducted from the amount of the contract, as the case may be at the rates, in accordance with the sanctioned schedule of rates, in force at the time, when the particular item of work was commenced. In those cases in which rates do not exist, the **Engineer-in-Chief (P.H.), Odisha, Bhubaneswar** will fix the rates to be paid and his decision shall be final.
- 6.8. **Extension of Time:**
If the contractor shall desire an extension of time for completion of the work on the ground of his having been come across with unavoidable hindrance in its execution or any other grounds he shall apply in writing to Executive Engineer within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid and the authority shall if in his opinion (which shall be final) as reasonable ground be shown thereof authorized such extension of time if any, as may in his opinion, be necessary or proper. The authority shall at the same time inform the contractor whether the authority claims compensation for delay, in case there is any delay in execution due to non-availability of stock materials or land or rise in

cost of materials and labour or any reason whatsoever beyond the control of authority, the contractor is bound to execute the work as per the terms and rates in the contract and no monetary claim on such account will be acceptable to the authority but extension of time, proportionate to the delay in execution may be granted by the authority considering the merit of the case. The competent authority reserves the right to take any expert advice of any Committee/ Secretary/ Legal Advisor while considering the application of the contractor for extension of time and can impose any condition which shall be binding on the contractor.

6.9. **Works & Materials at Site to be Property of Government of Odisha.**

All works and materials brought and left at site by the contractor or by his orders for the purpose of forming part of the works are to be considered to be the property of the **Governor of Odisha** and the same are not to be removed or taken away by the contractor or any other person without the specific permission in writing of the Executive Engineer but the Governor of Odisha will not be liable for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or stolen or injured by weather or otherwise.

6.10. **Supply of Materials:**

The contractor shall at his own expense provide all materials required for the work. The materials supplied by the contractor shall conform to relevant latest editions of the specification and codes of practices of the Bureau of Indian Standards or in their absence to other specifications as may be specified by the Engineer-in-charge. The contractor shall furnish necessary certificates in support of the quality of the materials as may be required by the Engineer-in-charge.

The Engineer-in-charge shall have absolute authority to test the quality of materials at any time through any reputed laboratory at the cost of contractor. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The Executive Engineer has full power for removal from the premises of all materials which, in his opinion, are not in accordance with the specification and in case of default, the Executive Engineer is to be at liberty to sell such materials and to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Executive Engineer is also to have full power to require other proper materials to be substituted and in case of default, the Executive Engineer may cause the same to be supplied and all costs which may attend such removal and substitution are to be borne by the contractor and may be recovered from the sale proceeds of such rejected materials when necessary, the balance, if any, being kept in deposit in the contractor's favour.

6.10.1 *The successful bidder is to purchase materials necessary for execution of work contract from local SSI units & MS Enterprises having valid rate contract & ISI mark.*

6.11. Execution with Defective Workmanship & Improper Materials.

If in the opinion of the Executive Engineer any of the works have been executed with improper materials or defective workmanship, the contractor is then required by the Executive Engineer forthwith to re-execute the same and to substitute proper materials and workmanship and in case of default of the contractor in so doing within a week, the Executive Engineer is to have full power to employ other agency to re-execute the work and the cost thereof shall be borne by the contractor.

6.12. Rectification of Defects within Guarantee Period:

Any defects, shrinkage or other faults which may appear within 12 (twelve) months from the completion of the work arising out of defective or improper materials or workmanship are upon the direction of the Executive Engineer to be amended and made good by the contractor at his own cost unless the Executive Engineer for reasons to be recorded in writing shall decide that they ought to be paid for and in case of default, the Governor of Odisha may recover from the contractor the cost of making good the works.

6.13. Responsibility of the Contractor during Execution of Work:

From the commencement of the works to the completion of the same they are to be under the contractor's charge. The contractor is to be held responsible for and to make good all injuries, damages and repairs occasioned or rendered necessary to the same by fire or other causes and they are to hold the Governor of Odisha harmless from any claims for injuries to persons or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the contractor or of any one of his employees during the execution of the works.

6.14. Execution of Works in the Site by Other Workmen:

The Executive Engineer is to have full powers to send workmen upon the premises to execute fittings and other works not included in the contract for whose operations the contractor is to afford every reasonable facility during ordinary working hours provided that such operations shall be carried on in such a manner as not to impede the progress of the work included in the contract but the contractor is not to be responsible for any damage which may happen to or be occasioned by any such fittings or other works.

6.15. Time Control:

(Vide Works Department Office Memorandum No.24716 dtd.24.12.2005 and No.8310 dtd.17.05.2006)

a) Progress of work and Re-scheduling programme.

- i) The SUPERINTENDING Engineer / Engineer-in-Charge shall issue the letter of acceptance to the successful contractor. The issue of the letter of acceptance

shall be treated as closure of the Bid process and commencement of the contract.

- ii) Within 15 days of issue of the letter of acceptance, the contractor shall submit to the Engineer-in-Charge for approval a Programme showing the general methods, arrangements, and timing for all the activities in the Works along with monthly cash flow forecast.
- iii) To ensure good progress during the execution of the work the contractors shall be bound in all cases in which the time allowed for any work exceeds one month to complete, $\frac{1}{4}$ th of the whole time allowed under the contract has elapsed, $\frac{1}{2}$ of the whole of the work before $\frac{1}{2}$ of the whole time allowed under the contract has elapsed, $\frac{3}{4}$ th of the whole of the work before $\frac{3}{4}$ th of the whole time allowed under the contract has elapsed.
- iv) If at any time it should appear to the Engineer-in-Charge that the actual process of the work does not conform to the programme to which consent has been given the Contractor shall produce, at the request of the Engineer-in-Charge, a revised programme showing the modifications to such programme necessary to ensure completion of the works within the time for completion. If the contractor does not submit an updated Programme within this period, the Engineer-in-Charge may withhold the amount of 1% of the contract value from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.
- v) An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.
- vi) The Engineer-in-Charge's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer-in-Charge again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

b) Extension of the Completion Date.

- i) The time allowed for execution of the works as specified in the Contract data shall be the essence of the Contract. The execution of the works shall commence from the 15th day or such time period as mentioned in letter of Award after the date on which the Engineer-in-Charge issues written orders to commence the work or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee / Security deposit absolutely.
- ii) The Contractor shall submit the Time & Progress Chart for each milestone Quarter wise indicating each month and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of

the work and may be amended as necessary by agreement between the Engineer-in- Charge and the Contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per milestone given in contract data.

- iii) In case of delay occurred due to any of the reasons mentioned below, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.
 - (1) Force majeure, or
 - (2) Abnormally bad weather, or
 - (3) Serious loss or damage by fire, or
 - (4) Civil commotion, local commotion of workmen, strike or lockout affecting any of the trades employed on the work, or.
 - (5) Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract.
 - (6) In case a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost, or
 - (7) Any other cause, which, in the absolute discretion of the authority mentioned, in Contract data is beyond the Contractors control.
- iv) Request for reschedule and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen (14) days of the happening of the event causing delay. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.
- v) In any such case a fair and reasonable extension of time for completion of work may be given. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 3 months of the date of receipt of such request. Non-application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the contractor.

c) Compensation for Delay

If the contractor fails to maintain the required progress in terms of clause-2 of P-1 Contract or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the **Executive Engineer (whose decision in writing shall be final and binding)** may decide on the amount of tendered value of the work for every completed day / month (as applicable) that the progress remains below that specified in Clause-2 of P-1 Contract or that the

work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified. Compensation @ 1.5% per month of for delay of work, delay to be completed on per Day basis. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the Tendered Value of work or to the Tendered Value of the item or group of items of work for which a separate period of completion is originally given. The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government. In case, the contractor does not achieve a particular milestone mentioned in contract data, or the rescheduled milestone(s) in terms of Clause-2.5, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of extension of time. Withholding of this amount on failure to achieve a milestone shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest whatsoever shall be payable on such withheld amount.

d) Bonus for early completion

For availing incentive clause in any project which is completed before the stipulated date of completion, subject to other stipulations it is mandatory on the part of the concerned Executive Engineer to report the actual date of completion of the project as soon as possible through fax or e-mail so that the report is received within 7 days of such completion by the concerned Executive Engineer ,SUPERINTENDING Engineer, Chief Engineer & the Administrative Department. The incentive for timely, completion should be on a graduated scale of one percent to 05 percent of the contract value. Assessment of incentives may be worked out for earlier completion of work in all respect in the following scale.

Before 30 % of contract period = 5 % of Contract Value

Before 20 to 30 % of contract period = 4 % of Contract Value

Before 10 to 20 % of contract period = 3 % of Contract Value

Before 5 to 10 % of contract period = 2 % of Contract Value

Before 5% of contract period = 1 % of Contract Value

(Amendment to Para-3.5.5 (V) of Note-III of OPWD Code Vol.-I by inclusion vide O.M. No.5288 dt.04.05.2016)

e) Management Meetings

- i) Either the Engineer or the Contractor may require the other to attend a management meeting. The business of management meetings shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- ii) The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the

Employer. The responsibility of the parties for actions to be taken to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

f) **Rescission of Contract:**

To rescind the contract (of which rescission notice in writing to the contractor under the hand of the Executive Engineer shall be conclusive evidence), 20% of the value of leftover work will be realized from the contractor as penalty.

(Amendment as per letter No.10639 dt.27.05.2005 of Works Department, Odisha)

6.16. **Circumstances for Rescission of Contract:**

If the contractor shall become bankrupt or compound with or make any assignment for the benefit of his creditors or shall suspend or delay the performance of his part of the contract (except on account of cause mentioned in **Clause 6.15** or in consequence of not having proper instructions for which the contractor shall have duly applied) the Executive Engineer may give to the contractor or his assignee or trustee as the case may be notice requiring the works to be proceeded with and in case of default on the part of the contractor for a period of seven days, it shall be lawful for the Executive Engineer to rescind the contract, if necessary, and to enter upon and take possession of the work and to employ any other person to carry on and complete the same and to authorise him or them to use the plant, materials and property of the contractor upon the works and the costs and the charge incurred in any way in carrying on and completing the said works are to be paid to the Executive Engineer by the contractor or may be set off by the Executive Engineer against any money due or to become due to contractor. If the assignee or trustee of the Contractor proceeds with the work, the conditions of this contract shall be binding upon the said assignee or trustee.

6.17. **Payment Certificate.**

A Certificate of the Executive Engineer or an award of the refer hereinafter referred to as the case may be showing the final balance due or payable to the contractor is to be conclusive evidence of the works having been duly completed and that the contractor is entitled to receive payment of the final balance, but without prejudice to the liability of the contractor under the provisions of **Clause-6.11**.

6.18. The Executive Engineer shall make payment of work in full or part thereof those shall have been certified, subject to availability of Letter of Credit (LoC).

6.19 **Price Adjustment** (*vide Works Department Office Memorandum No.15847/W Dt.19.11.2019*)

1. Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per formula given in following Paras.

(a) The price adjustment shall apply for the work done from the start date given in

the contract data up to end of the initial intended completion date or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.

- (b) The price adjustment shall be determined during each month from the formula given in following Paras.
- (c) Following expressions and meanings are assigned to the work done during each month:

R= Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed for extra items under variations.

- 2. To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs

The formula (e) for adjustment of prices are:

19(a) (i): Adjustment of Other Materials Component

Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen, pipe and POL procured by the contractor shall be paid in accordance with the following formula:

$$V_M = 0.85 \times P_m/100 \times R \times (M_1 - M_0)/M_0$$

V_M = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

M_0 = The all India wholesale price index (all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

M_1 = The all India wholesale price index (all commodities) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_m = Percentage of local material component (other than cement, steel, bitumen and POL) of the work.

19(a)(ii): Adjustment for Cement Component

Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula:

$$V_c = 0.85 \times P_c/100 \times R \times (C_1 - C_0)/C_0$$

- V_c = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for cement
- C_0 = The all India wholesale price index for Ordinary Portland Cement (OPC) on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.
- C_1 = The all India wholesale price index for Ordinary Portland Cement (OPC) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.
- P_c = Percentage of Cement Component of the Work.

19(a)(iii): Adjustment for Steel Component

Price adjustment for increase or decrease in the cost of steel procured by the contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s/100 \times R \times (S_1 - S_0)/S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel.

S_0 = The all India wholesale price index for steel (Mild Steel long products) on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi

S_1 = The all India wholesale price index for steel (Mild Steel long products) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_s = Percentage of steel component of the work

Note: For the application of this clause, index of (Mild Steel long products) has been chosen to represent steel group.

19(a)(iv): Adjustment of Bitumen Component

Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula:

$$V_b = 0.85 \times P_b/100 \times R \times (B_1 - B_0)/B_0$$

V_b = Increase or decrease in the cost of work during the month under consideration due to changes in the rate for bitumen.

B_0 = The official retail price of bulk bitumen at the IOCL/ BPCL depot at nearest center on the day 28 days prior to date of opening of Bids.

B_1 = The official retail price of bulk bitumen at IOCL/ BPCL depot at nearest center for the 15th day of the month under consideration.

P_b = Percentage of bitumen component of the work

19(a)(v): Adjustment towards differential cost of Pipes.

Price adjustment for increase or decrease in the cost of pipe shall be paid in accordance with the following formula:

$$V_{pi} = 0.85 \times P_{pi}/100 \times R \times (P_{i1}-P_{i0})/P_{i0}$$

V_{pi} = Differential cost of pipe i.e. amount of increase or decrease in rupees to be paid or recovered during the month under consideration.

P_{pi} = Percentage of pipe component of the work

P_{i1} = All India Whole sale price index of pipe for the period under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_{i0} = All India Whole sale price index of pipe on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

19(b): Adjustment of Labour Component

Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

$$V_L = 0.85 \times P_l/100 \times R \times (L_1- L_0)/L_0$$

V_L = Increase or decrease in the cost of work during the month under consideration due to changes in rates for local labour.

L_0 = The minimum wages for unskilled labour as Notified by Government of Odisha as prevailed on the last stipulated date of receipt of tender including extension, if any.

L_1 = The minimum wages for unskilled labour as Notified by Government of Odisha as prevailed on the last date of the Month previous to the one under consideration.

P_l = Percentage of labour component of the work.

19(c) : Adjustment of POL (fuel and lubricant) Component

Price adjustment for increase or decrease in cost POL (fuel and lubricant) shall be paid in accordance with the following formula:

$$V_f = 0.85 \times P_f/100 \times R \times (F_1- F_0)/F_0$$

V_f = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for fuel and lubricants.

F_0 = The official retail price of High-Speed Diesel (HSD) at the existing consumer pumps of IOCL/ BPCL/ HPCL at nearest center on the day 28 days prior to the date of opening of Bids.

F_1 = The official retail price of HSD at the existing consumer pumps of IOCL/ BPCL/ HPCL at nearest center for the 15th day of the month under consideration .

P_f = Percentage of fuel and lubricants component of the work

Note: For the application of this clause, the price of High-Speed Diesel oil has been chosen to represent fuel and lubricants group.

19(d): Adjustment for Plant and Machinery Spares Component

- (vi) Price adjustment for increase or decrease in the cost of plant and machinery spares procured by the Contractor shall be paid in accordance with the following formula:

$$V_p - 0.85 \times P_p / 100 \times R \times (P_1 - P_0) / P_0$$

V_p - Increase or decrease in the cost of work during the month under consideration due to changes in the rates for plant and machinery spares.

P_0 - The all India wholesale price index for manufacture of machinery for mining, quarrying and construction on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_1 - The all India wholesale price index for manufacture of machinery for mining, quarrying and construction for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_p - Percentage of plant and machinery spares component of the work.

Note: For the application of this clause, index of manufacturing of machinery for mining, quarrying and construction has been chosen to represent the Plant and machinery Spares group.

Regarding wholesale price Index (WPI) for appropriate commodity for payment of price adjustment, due to change of base year of WPI from 1993- 94 to 2004-05 & 2011-12, it is observed that, the commodity 'Bars and Rod', 'Cement', 'Heavy machinery and parts' included in the list of WPI 1993-94 series are not mentioned as such in the WPI 2004-05 & 2011-12 series. Therefore, the following items in the WPI 2004-05 & 2011-12 series shall be considered corresponding to items in WPI 1993-94 series:

Sl. No.	Item in WPI 1993-94 series	Item in WPI 2004-05 series	Item in WPI 2011-12 series
1.	Cement	Grey Cement	Ordinary Port land cement
2.	Bars & rods	Rebars	Mild steel long products
3.	Heavy Machinery & parts	Construction Machinery	Manufacture of machinery for mining, quarrying & construction.

19(e): APPLICATION OF ESCALATION CLAUSE:

The contractor shall for the purpose of availing reimbursement/refund of differential cost of steel, bitumen, cement, pipe, POL and wages, keep such books of account and other documents as are necessary to show that the amount of increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of Government and further, shall at the request of the Engineer-in-Charge, furnish documents to be verified in such a manner as the Engineer-in-Charge may require any document and information kept The contractor shall within a reasonable time of 15 days of his becoming aware of any alteration in the price of such material, wages of Labour and/or price of POL give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition along with information relating to there to which he may be in a position to supply.

Percentage Table

Sl. No.	Category of works		% Component (cost wise)		
			Labour (P _l)	P.O.L (P _f)	Steel (P _s) + Cement (P _c) + Bitumen (P _b) + Pipes (P _{pi}) + Plant & Machinery Spare & Component (P _p) + Other Materials*
1.	R&B works (% of component)	Road works	5	5	90
		Bridge works	5	5	90
		Building works	5	5	90
2.	Irrigation works (% of component)	Structural work	5	5	90
		Earth, Canal & Embankment work	5	5	90
3.	P.H. Work	Structural work	5	5	90
		Pipeline work	5	5	Pipe – 70% * Machinery + Other material -20%
		Sewer line	5	5	Pipe – 70% * Machinery + Other material -20%

*

*Note: Further break up may be worked out considering the consumption of Cement. Steel, Bitumen, pipe and Plant & Machinery Spare Component in the concerned works and shall be provided in the bid document in shape of "**Schedule of Adjustment Data**" as an "**Appendix to Bid**". (enclosed herewith).*

Appendix to Bid

Schedule of Adjustment Data

[For all works, adjustment factor for Labour and POL shall be considered @ 5% each. Steel, Cement, Pipes, other Materials and Machinery shall contribute to 90% of Price Adjustment and shall be calculated for each work separately during preparation of estimate, shall be approved by the authority during technical sanction as a "Schedule of Adjustment Data" and shall form part of the Bid Document]

Cl. No-31 of F2/P1 Contracts Sl. No.	Index description	Source of index	Base value*	Base Date*	Weightage of Item**
31 (a)(i)	Other Materials	All India Whole sale price index (all commodities) as published by the Office of the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			
31 (a)(ii)	Cement	All India Whole sale price index for Cement (Ordinary Portland Cement) as published by the Office of the Economic Advisor to the Govt. of India, Ministry of Commerce and industry.			
31 (a)(iii)	Steel	All India Whole sale price index for Steel (Mild Steel-Long Products) as published by the Office of the Economic Advisor to the Govt. of India, Ministry of Commerce and industry.			
31 (a)(iv)	Bitumen (VG-30)	Official retail price of bulk bitumen at the nearest IOC/HPCL Depot.			
31 (a)(v)	Pipes	All India Whole sale price index for the type of pipe under consideration, as published by the Office of the Economic Advisor to the Govt. of India, Ministry of Commerce and industry.			

31 (b)	Labour	Minimum Wage notified by the Labour and Employee's State Insurance Department of Government of Odisha, India.			5%
31 (c)	POL	Official retail price of HSD at nearest IOCL/ HPCL/ BPCL Consumer Pump Depot.			5%
31 (d)	Plant and Machinery	All India Whole sale price index for Manufacture of Machinery for Mining, Quarrying and Construction as published by the Office of the Economic Advisor to the Govt. of India, Ministry of Commerce and industry.			
Total :					100%

** Values to be filled up at the time of drawl of contract.*

*** Values to be filled up in the bid document.*

6.20. If at any time after the commencement of the work the Governor of Odisha shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out the Engineer-in-charge shall give notice in writing of the fact to the contractor who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage, which he might have derived from execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specification, drawings, designs and instruction which shall involve any curtailment or increase of the work as originally contemplated.

6.21. Defects Liability Period:

The defect liability is **12 months** from the date of formal taking over of the work by the Engineer-in-charge.

6.22. Contractor Liable for Damage done & for Imperfection for 6 (six) months after Certificate:

If the contractor or his work people or servants shall break, deface, injure or destroy any part of a building or structure in which they may be working or any building, road, fence, enclosure or grass land cultivated ground continue to the premises on which the work or any part of it is being executed or in any damage shall happen to the work while in progress from any cause whatsoever or any imperfection become apparent in it within six months from the date of the final certificate of its completion shall have been given by the Engineer-in-charge, as aforesaid, the contractor shall make the same good at his own expenses or in default the Engineer-in-charge may cause the same to be made good by other workman and deduct the

expenses of which the certificate of the Engineer-in-charge shall be final from any sums that may be then or at any time thereafter may become due to the contractor or from his security or the proceeds of sale thereof or a sufficient portion thereof and the contractor shall be liable to pay of the expenses not so recovered by the Engineer-in-charge.

6.23. Action where No Specification is mentioned:

In the case of any class or items of works for which there is no such specification as mentioned in file, if such work shall be carried out in accordance with the detailed standard specification of Odisha, as followed by the State PWD and in the event of there being no specifications born in the said standard specification of Odisha for such items of work, then in such case the said item of work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge after obtaining approval from competent authority.

6.24. Payment on Intermediate Certificate to be regarded as Advance and Bill to be submitted Monthly:

A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all works executed in the previous month and the Engineer-in-charge and/or Assistant Engineer and/or Junior Engineer in immediate charge of the work shall take the requisite measurements for the purpose of having the same verified, and the claims for as admissible adjusted if possible before the expiry of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge and/or his Engineering subordinates shall measure up the said work in the presence of the contractor, whose counter signature to the measurement list will be sufficient warrant, and the Engineer-in-charge and/or Assistant Engineer and/or his Engineering subordinates shall prepare a bill from such list which shall be binding on the contractor in all respects. Payment shall be made to the contractor in all respects.

The Engineer-in-charge will deduct @5% (five percent) of the value of each running bill prepared and submitted by the contractor, if any, on account of works done, and such sum or sums to be held in deposit as a further security for the due performance of the condition of the contract provided always that the Executive Engineer may refuse to make such monthly payments if in his opinion, the progress of the work or the conduct of the contractor is not satisfactory or the contractor has in any other way done or neglect to do anything as to make it appear doubtful to the authority as to whether the works will be completed by the contractor in accordance with his contract, or has failed to comply with any instruction or order of Engineering personnel. All such interim payments from time to time shall be regarded as payments by way of advance against the final payment only and not as payments of work actually done and completed and shall not preclude the requirement of bad, unsound and imperfect or unskilful work to be removed and taken away and for reconstructed or re-erected, or be considered as an admission of

the due performance of the contract, of any part thereof in any respect, or accrual of any claim not shall it conclude, determine or affect in any way the powers of Engineer-in-charge and/or Assistant Engineer and/or the Junior Engineer under these condition or any of them as to the final settlement of adjustment of the accounts or otherwise or in any other way vary or affect this contract. The contractor shall submit the final bill within one month of the date for completion of the work failing which the Engineer-in-charge or his authorized representatives in the presence of the contractor shall prepare the final bill. For recording final measurement of the work, the Engineer-in-charge or his authorized representative shall serve a notice upon the contractor stipulating therein the date fixed for recording such measurement. If the contractor fails to attend the recording of final measurement by the Engineer-in-charge or his authorized representative on the date as stipulated, the Engineer-in-charge may at his discretion get the measurements recorded ex-parte or fix up another date as per his own convenience. Such measurements and the total amount payable to the contractor as certified by the Engineer-in-charge shall be final and binding on all parties.

6.25. Black Listing:

A Contractor may be black listed as per amendment made to **Appendix XXXIV to OPWD Code Vol.-II on rules for black listing of Contractors vide letter No.3365 Dt.01.03.2007 of Works Department, Odisha**. As per said amendment the Contractor may be blacklisted.

- a) Misbehavior/threatening of Departmental & supervisory officers during execution of work/tendering process.
- b) Involvement in any sort of tender fixing.
- c) Constant non-achievement of milestones on insufficient and imaginary grounds and non-adherence to quality specifications despite being pointed out.
- d) Persistent and intentional violation of important conditions of contract.
- e) Security consideration of the State i.e., any action that jeopardizes the security of the State.
- f) Submission of false/ fabricated / forged documents for consideration of a tender.

6.26. As per Government of Odisha Works Department Office Memorandum No. 07764600022025 173 W., Bhubaneswar Dt. 03/01/26

6.27 If L₁ bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. In that case, the L₂ bidder, if fulfils, other required criteria would be called for drawing agreement for execution of work subject to the condition that L₂ bidder negotiates at par with the rate quoted by the L₁ bidder otherwise the tender will be cancelled. In case a contractor is black listed, it will be widely published and intimated to all Departments of Government and also to Government of India agencies working in the State.

(As included in Para 3.5.14 Note-I of OPWD Code Vol.I vide Works Department letter No.12366/W dt.18.11.2013).

- 6.28.** Before acceptance of tender, the successful bidder will be required to submit a work programme and milestone basing on the financial achievement so as to complete the work within the stipulated time and in case of failure on the part of the agency to achieve the milestone liquidated damaged will be imposed.

(As included in Para 3.5.18 Note-VIII of OPWD Code Vol.I vide Works Department letter No.12366/W dt.18.11.2013).

6.29. Grant of Concession to Scheduled Caste & Scheduled Tribe Contractors:

If the tender of the individual registered contractors belonging to Scheduled Caste and Scheduled Tribe is within 10% of the rate quoted by the lowest tenderer for any work, the work may be considered for award to him/her at the lowest tendered rate in the relaxation of Rule 18 of the O.G.F.R. Vol.I and Para 3.5.14 of OPWD Code Vol.I.

(Resolution No.16/37 – 27748 Dated 11.10.1977 amended vide No.16262/W Dt.30.10.2018).

SECTION-7

SPECIAL CONDITIONS OF CONTRACT

7.1. Changes in Constitution of Firm:

In the case of tender by a partnership firm, any change in the constitution of the firm shall be forth with notified by the contractor to the **Superintending Engineer/ Additional Chief Engineer/ Engineer-in-Chief** for his information. In case of failure to notify the change in the constitution within 15 days, the **Superintending Engineer/ Additional Chief Engineer/ Engineer-in-Chief** may by notice in writing, rescind the contract and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of the Governor of Odisha and the same consequence shall ensure as if the contract had been rescinded thereof and in addition the contractor shall not be entitled to recover or be paid for any work there for actually performed under the contract.

7.2. Engineer's Access to Work:

The Executive Engineer is to have at all times access to the works, which are to be entirely under his control. He may require the contractor to dismiss any person in the contractor's employee upon the works who may be incompetent or misconduct himself and the contractor is forthwith to comply with such requirements. Other supervising officers shall have all time access to the works.

7.3. Workmen Compensation Act VIII of 1923:

The Governor of Odisha shall be entitled to recover in full from contractor any amount that the Governor of Odisha may be liable to pay under Workman's Compensation Act VIII of 1923 to any workman employed in course of execution of any part of the work covered by this contract.

7.4. Jurisdiction in the Event of Dispute:

That for the purpose of jurisdiction in the event of dispute if any, the contract should be deemed to have been entered into within the State of Odisha and it is agreed that neither party to this agreement will be competent to bring a suit in regard to the matters covered by this contract at any place outside Odisha.

7.5. Lighting & Sanitary Arrangement:

Lighting & Sanitary arrangement and supply of drinking water will be made by the Contractor at his own cost for his labour camp.

7.6. Payment of TAXES:

The Contractor shall bear **Taxes** such as, Income Tax, Royalties, Fair Weather Charges and Tollages where necessary & **Government of Odisha** shall not entertain any claim whatsoever in this respect. Statutory deduction of **Taxes** as applicable shall be done from each running bill.

7.7. The Building & Other Construction Workers Welfare Cess Act 1996.

In accordance with the provisions under the said Act 1% (One) of the approved agreement value will be deducted from the R/A Bill at the time of making payment to

the contractor and such amount shall be remitted in favour of The Odisha Building & Other Construction Workers Welfare Board.

7.8. Site Clearance:

After the work is finished or completed, surplus materials and debris are to be removed by Contractor at his own cost and preliminary works such as vats, mixing platforms, level pillars, temporary sheds and go-downs etc. are to be dismantled and all such materials removed from site. The site involved in the construction activities should be cleared and dressed properly with outward slope away from the structure. After the work is completed in all respects as per the contract, the contractor shall vacate the site within three months from the date of completion & commissioning, by making good the damages if any.

7.9. Works to be Carried Out:

The work to be carried out under the contract shall include all materials, labour, tools and plants, equipment and transport which may be required in preparation of and for in the full and entire execution and completion of the works. The description given in the schedule of quantities/scope of work shall, unless otherwise stated, be held to include wastage on materials, carriage & cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

7.10. Sufficiency of Tender:

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the schedule of quantities (DTCN Part-II Price Bid), which rates and prices shall, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and commissioning of the works.

7.11. Rates:

The Tenderer shall quote their offer on '**Percentage Rate' (excess or less) over the estimated cost in the Price Bid appended to the tender document** for complete work in all respects. **The estimated cost is excluding GST. The rates of item basing on which estimated cost has been derived are excluding GST on different components to arrive at such rates.** The offer shall be inclusive of cost of all materials, labour, T&P including the building and other construction workers welfare cess with surcharge, tollages, royalties, packing and forwarding, transportation, insurance, loading & unloading, storage, watch and ward, delivery of the materials to the site etc. and all other expenses incidental thereto for successful completion, testing & commissioning of the work.

GST as applicable on works contract shall be paid over the bill amount at the time of Payment of Bill.

7.12. Transportation:

The contractor shall be responsible for the transportation of all materials, tools and plant, equipment and machinery to the work site as may be required at site.

7.13. Custody of the Materials:

The contractor shall be responsible for safe custody of the materials at site and the Governor of Odisha will not be responsible for any loss or damage of the property at site.

7.14. Construction Schedule:

The contractor shall submit a detailed work schedule in the form of **Bar Chart** along with his tender indicating the detailed break-up of the job. This will include all operations from submission of design & drawing, procurement of materials, construction to final testing & commissioning at site to be indicated in detail with reference to the time period for each.

The construction schedule as submitted by the contractor shall be revised by the Executive Engineer and approved with necessary modification if any after acceptance of the tender. However the Engineer-in-Charge shall reserve the right to modify the sequence of execution of different items/components/sub-items of the project as and when found necessary & in such cases it will be obligatory on the part of the successful bidder to abide by such changes in construction schedule/bar chart as per direction of EIC. No claim and/or condition should either be put forth in any manner by the successful bidder or shall be acceptable to the EIC.

7.14(a) Progress reports – submission by the contractor

- (1) The contractor shall submit monthly progress report of the work in a computerised form. The progress report shall contain the following, apart from whatever else may be required as specified:
 - (i) Project information, giving the broad features of the contract.
 - (ii) Introduction, giving a brief scope of the work under the contract, and the broad structural or other details.
 - (iii) Construction schedule of the various components of the work through a bar chart for the next three quarters (or as may be specified), showing the milestones, targeted tasks and upto date progress.
 - (iv) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative upto the month, with reasons for deviations, if any, in a tabular format.
 - (v) Plant and machinery statement, indicating those deployed in the work, and their working status.
 - (vi) Man-power statement, indicating individually the names of all the staff deployed in the work, along with their designations.
 - (vii) Financial statement, indicating the broad details of all the running account payments received upto date, such as gross value of work done, advances taken, recoveries affected, amounts withheld, net payments, details of cheque payments received, etc.

- (viii) A statement showing the extra and substituted items submitted by the contractor, and the payments received against them, items pending for sanction /decision by the Department, broad details of the bank guarantees, indicating clearly their validity periods, broad details of the insurance policies taken by the contractor, if any, the advances received and adjusted.
 - (ix) Progress photographs, in colour, of the various items/ components of the work done upto date, to indicate visually the actual progress of the work.
 - (x) Quality assurance and quality control tests conducted during the month, with the results thereof.
 - (xi) **Besides above contractor shall have to submit the information required as per the decision taken in the Kick-off meeting headed by the concerned Engineer-in-Charge.**
- (2) The progress report submitted by the contractor shall be checked and certified by the Junior Engineer and the Assistant Engineer, and has to be reviewed by the Executive Engineer and the Executive Engineer, over their dated signatures.
- (3) Work of unique importance and character irrespective of the value of the work, should have videography undertaken at various stages of construction right from the day of start of work to date of completion / occupation, covering all major events, inspections, visits by dignitaries, etc.

7.15. Initial Security Deposit:

The tenderer whose tender is selected for acceptance shall have to deposit **2% (two percent)** of the accepted tender amount as **Initial Security Deposit (ISD)** within **7 (Seven) days** of receipt of Letter of Acceptance (LoA) and sign the agreement in the prescribed form within **10 (Ten) days** of receipt of Letter of Acceptance after depositing the ISD.

The ISD shall be deposited in shape of **NSC/Post Office Savings Bank Account/ Post Office Time Deposit Account/ Kishan Vikash Patra/ Bank Guarantee** pledged in favour of the **Superintending Engineer, P.H. Division, Bhabanipatana** from any Nationalized/ Scheduled Bank in India counter guaranteed by its local branch at **Bhabanipatana/Bhubaneswar**. No tender shall be accepted unless required amount of security money is deposited.

In addition to the **ISD, 5%** of the bill amount shall be deducted from each bill towards the security deposit. The earnest money deposit, the initial security deposit before and after acceptance of tender together with the subsequent deduction from the contractor's bill shall form part of the security deposit equivalent to **7%** of the contract value for the due fulfilment of the contract.

The security deposit of the contractor shall be refunded only 12 (twelve) months after the date of completion of the work provided the final bill has been paid and defects if any rectified.

If, however there is inevitable delay in payment of final bill, the earnest money deposit and initial security deposit forming part of the security deposit may be refunded on orders of competent authority.

7.16. Monitoring of the Project:

Time is the essence of the contract. The execution of the project shall be closely monitored to ensure that quality; cost & time of the project are not compromised in any manner.

The contractor shall submit monthly progress reports in a format as may be prescribed by the Engineer-in-charge. The monthly progress report shall be evaluated by the SUPERINTENDING Engineer vis-à-vis the approved **Bar chart & PERT Chart** and any deficiency observed thereto shall be communicated to the contractor. The contractor shall have to make up the deficiencies within the specific time period communicated to him by the SUPERINTENDING Engineer failing which the contractor shall be liable for action as per **Clause -7.26**.

In addition, the contractor shall submit monthly day-wise work program one month in advance to Executive Engineer for approval under intimation to the **Superintending Engineer, Chief Engineer, PH (Urban) & Engineer-in-Chief, P.H., Odisha, Bhubaneswar** to ensure speedy implementation of the work and effective monitoring at all levels. Failing to do so shall also invite action under **Clause-7.26**.

7.17. Site Order Book:

A site Order Book shall be issued to the contractor by the Engineer-in-charge or his representative. The contractor shall keep this Book always at site and any special order or instruction to be issued to the contractor shall be recorded in this Book by the Engineer-in-charge or his representative. The contractor shall sign all orders and instructions as token of his knowledge about the same. The site Order Book shall be the property of the department but will remain during the period of the progress of the work with the contractor. The safe custody of the site Order Book during this period shall be the responsibility of the contractor. After completion of the work, the Book shall be returned back by the contractor to the Engineer-in-charge, which will be enclosed in the final bill.

7.18. Guarantee:

Defect liability period is **12 (twelve) months** from the date of final acceptance of the work conforming to provisions in scope of work. During this period, the contractor shall replace the defective materials if any or rectify the defects if any at his own cost as pointed out by the Engineer-in-charge to the satisfaction of the later.

7.19. Land:

The Department may provide land if available for construction of site office to the contractor on payment of usual rent.

7.20. Unilateral Stoppage of Work:

Unilateral stoppage of work by the contractor without prior written permission of the Engineer-in-charge shall be considered as breach of contract and the Governor of Odisha reserves the right to take such actions as it may be deemed fit.

7.21. Resident Engineer:

The contractor shall engage for this work competent, qualified and authorised resident Engineers and Assistants to the satisfaction of the Engineer-in-charge. The Resident Engineer shall represent the contractor in his absence in receiving directions from officers of the Department, which will be binding on the contractor.

7.22. Force Majeure:

Neither the contractor nor the Executive Engineer shall be considered in default in delayed performance of its obligation if such performance is prevented or delayed because of work to hostilities, revolution, civil commotion, epidemic, accident, fire, cyclone, flood, earthquake or because of any law and order reclamation, regulations or ordinance of the Government thereof or because of any act of God or for any cause beyond reasonable control of the party affected. Should one or both the parties be prevented from fulfilling their contractual obligations a state of force majeure lasting continuously for a period of 6 months, the two parties shall consult each other regarding the future execution of the contract for mutual settlement.

7.23. Damages to Persons and Property:

The contractor shall take every precaution not to damage or injure adjoining or other property of any persons. He shall indemnify and keep indemnified the employee against all claims for injuries or damages to any person or any such property (including surface or land or crops in site) which may arise out of or in consequence of any negligence or default on the representatives and against all claim, demands proceedings damages, costs, charges and expenses whatsoever in respect of or in relation thereto. The Department does not take any responsibility on this account.

7.24. Attention to Urgent Works:

If any urgent work in the opinion of Engineer-in-charge becomes necessary to be executed and the contractor is unable and unwilling at once to carry out, the Engineer-in-charge may by his own or through other agency carry it out, as he may consider necessary. All expenses incurred on it shall be recoverable from the contractor or be adjusted against any sum payable to him.

7.25. Safety Devices:

- i) **Scaffolding:** Suitable scaffolding shall be provided for workmen for all works that can not be safely done from the ground or solid construction except such short period of work as can be done safely from the ladders. When a ladder is used an extra labour shall be engaged for holding the ladder and if the ladder is used in carrying the materials, suitable foot holds and handholds shall be provided on the ladder.

The Engineer-in-charge will have the right to inspect the scaffolding and centring etc. for the work and can reject partly or fully such structure if found defective in his opinion.

- ii) **Working Platforms:** Working platforms, gangways and stairways shall be constructed such that they do not sag unduly or unequally. If the height of the platforms or gangway or stairway is more than 3.25 meters above the ground or floor level, it shall be closely guarded, have adequate width and suitably fenced.
- iii) **Safe means of access:** Safe means of access shall be provided to all working platform and other working places.
- iv) **Precaution against Electrical Equipment:** Adequate precaution shall be taken to prevent danger from electrical equipment. Hand lamps shall be provided with Mesh guard, wherever required.
- v) **Preventing Public from Accident:** No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or public. The contractor shall provide all necessary fencing and light to protect public from accident and shall be bound to bear expenses of defence or any suit action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precaution and to pay any damages and cost which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the contractor, be paid to compromise any claim by any such person. The contractor not to come cause blockage of traffic /disruption of the traffic.
- vi) **Demolition:** Before any demolition work is commenced and also during process of work:
 - a) all roads and open areas adjacent to the work site shall either be closed or suitably protected,
 - b) no electric cable or apparatus which is liable to be a source of danger shall remain electrically charged,
 - c) all practical steps shall be taken to prevent danger to persons employed from the risk of fire, explosion or flooding,
 - d) no floor roof or other parts of the building shall be so over loaded with debris or materials as may render it unsafe.
- vii) **Personal safety equipment:** All personal safety equipment shall be made adequately available by the contractor for use of persons employed at the site of work and maintained in a condition suitable for immediate use. The contractor shall take adequate steps to ensure proper use of the equipment by persons concerned.
- viii) **Precaution against fire:** Suitable fire extinguishers, water and sand buckets shall be provided at the work site to tackle situations of fire.

7.26. Rescission of Contract:

Subject to other provisions contained in this clause the SUPERINTENDING Engineer of the Department may without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, recommend the accepting authority to rescind the contract in any of the following cases:

- i) If the **contractor** having been given by the SUPERINTENDING Engineer a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workmen like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- ii) If the contractor being a company shall pass a resolution on the court shall make an order that the company shall be wound up or if a receiver or a **manager** on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle to court to make a winding up order.
- iii) If the contractor has, without reasonable cause, suspended the progress of the work with due diligence so that in the opinion of the SUPERINTENDING Engineer (which shall be final & binding) he will be unable to secure completion of the work by the date of completion and continues to do so after a notice in writing of seven days from the SUPERINTENDING Engineer.
- iv) If the contractor fails to comply with the provisions of **Clause-7.15** & other relevant clauses mentioned elsewhere in this DTCN.
- v) If the contractor fails to complete the work within the stipulated date or items of the work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the SUPERINTENDING Engineer.

When the contractor has made himself liable for action under any of the cases aforesaid, the **accepting authority shall have the powers to rescind the contract** (of which rescission notice in writing to the contractor under the hand of SUPERINTENDING Engineer shall be conclusive evidence), **20% of the value of the left over work** will be realized from the contractor as Penalty

- 7.26.1. In case of rescission of contract as per **Clause-7.26** the contractor shall have no claim to compensation for any loss sustained by him by regions of having purchased or procured any materials or entered any engagement on account of or with a view to execute the work / performance of the contractor.

7.27(a) Conditions for Reimbursement of Levy/Taxes if Levied after Receipt of Tenders:

- i) All tendered rates shall be inclusive of all taxes and levies payable under respect statutes. However, pursuant to the Constitution (46th Amendment) Act, 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon

necessarily and properly pays such taxes/levies the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the **Engineer-in-Chief, P.H., Odisha, Bhubaneswar** (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.

- ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorised representative of the Department and/ or the Engineer-in-Charge and further shall furnish such other information/ document as the Engineer-in-Charge may require from time to time.
- iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy, pursuant to the Constitution (Forty Sixth Amendment) Act, 1982, give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

7.27(b) **Other statutory Taxes such as I.T. etc, will be deducted at sources from the bills of the contractor and deposited with concerned authority.**

7.27(c) Royalty at the prevailing rate on minerals will be deducted from the bills of the contractor and deposited with concerned authority.

7.28 **Fair Wages Clause:**

- (a) The contractor shall not employ for the purpose of this contract any person who is below the age of fourteen years and shall pay to each labourer for work done by such labourers fair wages.

Explanation – “**Fair Wage**” means wages, whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the minimum wages Act 1948 wages at such higher rates should constitute fair wages.

The SUPERINTENDING Engineer shall have the right to enquire into and decide any complaint alleging that the wages paid by the contractor to any labourer for the work done by such labourer is less than the wages as per sub-paragraph-I above.

- (b) The contractor shall, notwithstanding the provisions of any contract to contrary, cause to be paid a fair wage to labourers indirectly engaged on the work including any labour engaged by his sub-contractors in connection with the said work, as if, the labourers had been immediately employed by him.
- (c) In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all regulations made by Government in regard to payment of wages, wage period deductions from wages, recovery of wages not paid and deductions unauthorizedly made, maintenance of wage

register, wage cards, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of a like nature.

- (d) The SUPERINTENDING Engineer or Sub-Divisional Officer concerned shall have the right to deduct, from the money due to the contractor, any such required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers non-payment of wages or of deduction made from his or their wages, which are not justified by their terms of the contract or non-observance of the regulations. Money so deducted should be transferred to the workers concerned.
- (e) Vis-à-vis, the Government of Odisha, the contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub-contractor.
- (f) The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be breach of this contract.

[Odisha PWD/Electricity Department Contractor's Labour Regulations]

7.28.1. Short title – These regulations may be called “**The Odisha Public Works Department / Electricity Department Contractor's Regulations**”.

7.28.2. Definitions – In these Regulations, unless otherwise expressed or indicated the following words and expressions shall have the meaning here by assigned to them respectively, that is to say -

- i) “**Labour**” means a worker employed by a contractor of the Odisha Public Works Department / Electricity Department directly or indirectly through a sub-contractor or other person, or by an agent on his behalf.
- ii) “**Fair Wages**” means wages whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the minimum wages Act, 1948 wages at such higher rates should constitute fair wages.
- iii) “**Contractor**” shall include every person whether a sub-contractor or headman or agent employing labour on the work taken on contract.
- iv) “**Wages**” shall have the same meaning as defined in the payment of Wages Act and include time and piece rate wages, if any.

7.28.3. **Display of Notices regarding Wages, etc.:**

The contractor shall:–

- a) Before he commences his work on contract display and correctly maintain and continue to display and correctly maintain, in a clean and legible condition, in conspicuous places on the work, notices in English and in the local Indian language spoken by the majority of the workers, giving the rate of wage

prescribed by the State Public Works Department / Electricity Department for the district in which the work is done.

- b) Send a copy of such notices to the Engineer-in-charge of the work.

7.28.4. Payment of wages:

- (1) Wages due to every worker shall be paid to him direct.
- (2) All wages shall be paid in current coin or currency or in both

7.28.5. Fixation of wage period:

- 1) The contractor shall fix the wage period in respect of which the wages be payable.
- 2) No wage period shall exceed one month.
- 3) Wages of every workman employed on the contract shall be paid before the expiry of ten days, after the last day of the wage period in respect of which the wages are payable.
- 4) When the employment of any worker is terminated by or on behalf of the contractor, the wages earned by him shall be paid before the expiry of the day succeeding the one on which his employment is terminated.
- 5) All payments of wages shall be made on a working day.

7.28.6. Wage book and wages cards, etc.:

- (1) The contractor shall maintain a wage book of each worker in such form as may be convenient, but the same shall include the following particulars-
 - (a) Rate of daily or monthly wages.
 - (b) Nature of work on which employed
 - (c) Total number of days worked during each wage period
 - (d) Total amount payable for the work during each wage period.
 - (e) All deductions made from the wages with an indication in each case of the ground for which the deduction is made.
 - (f) Wage actually paid for each wage period.
- (2) The contractor shall also maintain a wage card for each worker employed on the work.
- (3) The SUPERINTENDING Engineer may grant an exemption from the maintenance of wage book, wage cards to a contractor who, in his opinion – may not directly or indirectly employ more than 100 persons on the work.

7.28.7. Fines and deduction which may be made from wages:

- (i) The wages of a worker shall be paid to him without and deduction of any kind except the following –
 - (a) Fines
 - (b) Deductions for absence from duty, i.e., from the place of places whereby the terms of his employment he is required to work. The

amount of deductions shall be in proportion to the period for which he was absence.

- (c) Deductions for damage to or loss of good expressly entrusted to the employed person for custody or for loss of money for which he is required to account where such damage or loss is directly attributable to his neglect or default.
 - (d) Any other deductions which the Odisha Government may from time to time allow.
- (ii) No fines shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deduction.
 - (iii) The total amount of fines which may be imposed in any one wage period on a works shall not exceed an amount equal to five paise in a rupee of the wages payable to him in respect of that wage period.
 - (i) No fine imposed on any worker shall be recovered from him by instalments, or after the expiry of 60 days from the date on which it was imposed.

7.28.8. Register of fines, etc.:

- (i) The contractor shall maintain a register of fines and of all deduction for damage or loss. Such register shall mention the reason for which fine was imposed or deduction for damage or loss was made.
- (ii) The contractor shall maintain a list in English and in the local Indian language, clearly defining acts and omissions for which penalty of fine can be imposed. It shall display such list and maintain it in a clean and legible condition in conspicuous places on the work.

7.28.9. Preservation of register:

The wage register, the wage cards and the register of fines, deduction required to be maintained under the regulations shall be **preserved for 12 (twelve) months** after day of the last entry made in them.

7.28.10. Powers of Labour Welfare Officers to make investigation or enquiry:

The Labour Welfare Officers or any other persons authorized by the Government of Odisha on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the fair wage clauses and the provisions of these regulations. He shall investigate into any complaint regarding default made by the contractor, sub-contractor in regard to such provisions.

7.28.11. **Report of Labour Welfare Officers:**

The Labour Welfare Officer or others authorized as aforesaid shall submit a report of the results of his investigation or enquiry to the SUPERINTENDING Engineer concerned, indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor bill be made and the wages and other dues be paid to the labourers concerned.

7.28.12. **Appeal against the decision of Labour Welfare Officer:**

Any persons aggrieved by the decision and recommendation of the Labour Welfare Officer or other person so authorized may appeal against such decision to the Labour Commissioner within 30 days from the date of decision forwarding simultaneously a copy of his appeal to the SUPERINTENDING Engineer concerned but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

7.28.13. **Inspection of register:**

The contractor shall also allow inspection of the wage book and wage cards to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Labour Commissioner or any other person authorized by the Government of Odisha on his behalf.

7.28.14. **Submission of return:**

The contractor shall submit periodical returns as may be specified from time to time.

7.28.15. **Amendments:**

The Government of Odisha may from time to time, add to or amend these regulations and on any question as to the application, interpretation of effect of these regulations, the decision of the Labour Commissioner or any other person authorized by the Government of Odisha in that behalf shall be final.

The terms and conditions of the agreement have been read by Me/Us and I/We certify that I/We clearly understand them and agree to abide by them.

Contractor

SECTION – 08

SCOPE OF WORK

The intent of this Section is to specify the work items to be covered on '**Percentage Rate Basis**' in conformity with the technical specifications as enumerated in the subsequent clauses for the work **"Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality."**

1. Location :

Town	:	Bhabanipatana
District	:	Bhabanipatana
State	:	Odisha
Connected by	:	NH - 26
Nearest Railway Station	:	Bhabanipatana

2. Scope of Work

The scope of work shall cover supply of all materials and equipment, construction, supervision, finishing including all civil structural works along with all labour and T&P for **"Provision of solar lighting arrangements with use of solar panel (Renewable Energy) in different pump house at Bhabanipatana Municipality"**.

The above work is not exhaustive. All the works are to be executed up as per details in the BoQ and if mentioned elsewhere in the DTCN.

- 3.** Materials found defective at the time of fixing and/or verification at the site by the concerned Superintending Engineer/Consignee shall not be accepted and the same shall have to be replaced by the agency at his/her/their own risk and cost within a reasonable time period from the date of issue of written information to that effect by the concerned Engineer failing which the Engineer in charge will be at liberty to take any action deemed fit in the interest of Govt. Work(s) and the agency will have no option but to abide by the decision of the Superintending Engineer.

At site, Testing and inspection shall be carried out as per Indian Standards/ International Standards in presence of Engineer-in-Charge, agency and manufacturer. The agency shall detail out the codes and standards in accordance with which the testing shall be carried out.

All equipments, labour, tools & tackles, instruments and other facilities for testing shall be provided by the contractor. He shall also maintain records of all the tests and furnish copies of the same to the Department.

The Department reserves the right to test any material at any of the reputed laboratories if necessity arises & the cost of such test(s) shall be borne by the contractor & rejected materials shall have to be replaced by the contractor by approved material at his cost.

4. On completion of the work, the contractor shall clear all the left over surplus earth, bricks, boulders, debris, scrap, temporary structures etc. from the work site and present the entire premises in a neat and tidy manner.
5. **All provisions of the technical scope of work & terms & conditions of the contract have been read by Me/Us and I/We certify that I/We clearly understand them & agree to abide by them.**

Witness

Contractor

SECTION – 09

TECHNICAL SPECIFICATIONS & DESIGN CRITERIA

9.1 Intent of specification.

This Specification intends to stipulate the technical requirements for laying of water supply pipe line and fittings during execution, manufacturing, fabrication, erection, testing and commissioning.

9.2 General Conditions

a) Codes and standards. IS – 3589 – 2001, IS – 10221- 1982 &CPHEO Manual of latest versions.

1. Cement shall not be less than O.P.C.-43 grade of reputed manufactures such as Lafarge/ L&T/ACC/ Ultratech /Konark/ Ambuja confirming to relevant IS.
2. The steel reinforcement shall be of SAIL/TATA/JINDAL STEEL/ VIZAG make of Fe-500 grade confirming to relevant IS specification.
3. As & when required, the steel/cement & other building materials will be tested by Department at the cost of contractor to ensure proper quality as per IS specification.
4. Testing of water tightness shall be conducted as per relevant IS Codes.
5. Machine mix shall be used in concrete work for all structure. Design mix of concrete will be preferred. Vibrator of appropriate type shall be used for compaction of concrete.
6. All the structures are to be designed as permanent type and shall have aesthetic elevation.
7. Form work shall be of steel plates and frame, sound seasoned timber or any approved materials as decided by Engineer-in-charge to be used for the centring and shuttering of the structures.
8. Painting of all steel / MS structure to be done as per approved quality of enamel paint over a coat of primer.
9. All electrical work / earthings including wiring of pump house, filter house, chemical house, chlorine chamber with store, office building & laboratory etc., to be done as per relevant IS specification and Indian Electrical Rules. Single phase wiring shall be done for lighting purpose & three phase wiring shall be done for running pump motors, W.T.P. & wherever necessary.

10. All the valves are to conform with relevant IS specification and of reputed make.
11. The surplus earth and debris should be lifted after completion of work and proper levelling of site as directed by Engineer-in-charge without any extra claim.
12. Pumps and motors to be of reputed and approved make.
13. All the work including supply of materials to be executed as per relevant IS specification and direction of Engineer-in-charge.
14. Foundation of all structure including supply of materials shall be designed depending on Ground water table / subsoil condition. In no case the Depth of foundation below virgin soil shall be less than 1 mtr. at respective places.
15. All equipment, accessories, auxiliaries, piping, electrics, instruments, installations, construction, buildings etc. including all mechanical, electrical & civil engineering works covered under the scope of work of contractor shall be subjected to inspection & testing by the Department for its material, quality, workmanship and the performance. The contractor shall arrange and carryout all such inspection, testing, trial run etc. and demonstrate in presence of the Engineer-in-charge of the Department.
16. The cost of such inspection, testing, trial run, demonstration etc. shall be borne by the contractor. All responsibility of such inspection, testing, trial run, demonstration etc. and any damage/ loss that may cause directly or indirectly shall exclusively rest with the contractor.
17. Such inspection, testing, trial run, demonstration etc. shall, however, not relieve the contractor of their liability for replacing/ rectifying any defects, which may subsequently appear or be detected during erection and guarantee period.
18. All equipment, sub-assembly and components, auxiliaries and accessories shall be tested at manufacturer's workshop/site in accordance with relevant Indian Standards/ International Standards. The contractor shall furnish all test certificates etc. related to the quality of all the materials to the Department along with the delivery of the materials at site without which no payment shall be released. However, such test certificates, quality assurance certificate shall not relieve the contractor of its obligation to replace forth with any instrument/ materials found defective during tests at works / trial running period/guarantee period.

19. Testing for performance of equipment shall be carried out and be checked with the approved parameters and performance characteristic curves for the purpose of acceptance.
 20. Reinforced cement concrete M-30 in all members in contact with water and members close to water like roof slab/dome etc.
 21. Any other RCC members shall be of minimum of **M-20** grade.
 22. **Design Criteria and Specification for Water retaining structures:** All the RCC Water Retaining structures shall be designed as per IS456-2000 and IS: 3370 -2009. The structural design shall be done by **Working Stress Method**. The concrete grade for the water retaining members shall be M30. The steel used for reinforcement shall be Corrosion resistance high yield strength deformed bars confirming to IS:1786 (with latest revision).
 23. **Design Criteria and specification for RCC Structures:** Concrete structures should be designed as per IS:456 -2000 **using Limit State Method of design**. For RCC works the Grade of concrete shall not be less than M20 Machine mix shall be used in concrete works of the structures. Vibrators of appropriate type shall be used for compaction of the concrete. The contractor shall give at his own cost concrete cubes to the department made from fresh concrete prepared for the work taken as per IS:1199 cured for 7 days and 28 days for testing by the department at any recognized/Govt. testing laboratory, and the testing charges shall be borne by the contractor.
 24. **Electrical equipment/ installation:** All the Electrical equipment/ installations shall be energy efficient and confirm to star rated/ BEE as applicable. **The Electrical Power Factor should not be less than 0.92.**
- 9.3 Providing water supply house connection to the consumers from PHEO sources in different locations under BHABANIPATANA Town as follows.**
- i) Dismantling of BT/Concrete Road/Pavement.
 - ii) Earth work in Excavation (all kind of soil).
 - iii) Supply, drilling, fitting, fixing of Ductile Iron Tapping Saddle (4" to 6") for CI/DI pipes and PVC saddle for PVC pipes as per site condition using suitable nuts, bolts, etc., for fixing of ferrule.
 - iv) Supply, fitting, fixing of Brass Gunmetal Ferrule Cock of 1/8" size confirming to IS:2692-1978 in Tapping Saddle.
 - v) Supply, laying in trenches 25 mm size PVC ASTMD Pipe (Sch-80) & fittings (3.0 M to 7.0 M).
 - vi) Cutting holes in pucca floor/wall for fitting pipes and making good to the damages.
 - vii) Supply, fitting & fixing of PVC Bib Cock.

- vii) Supply all materials for restoration of damaged due to cutting of road with CC (1:2:4)

9.4 Procurement, Inspection & Testing of DI (K-7) / (K-9) / M.S. / HDPE pipes and fittings:

- The successful bidder shall source all ISI Marked Ductile Iron Pipes & Fittings from;
- The manufacturer who has not been blacklisted by any Govt./Govt. Undertaking for supply of DI / HDPE Pipes in India and
- The manufacturer is having valid BIS License for marking ISI Mark on their products for at least 5 (five) years and
- The manufacturer's DI / HDPE Pipes and Fittings are in satisfactory performance in Indian Projects for at least three years.
- The DI / HDPE. pipes are to be inspected by the quality assurance wing of RITES Ltd/ CIPET / PDIL Ltd., and the consignment are to be embossed with the RITES Ltd/ CIPET / PDIL Ltd., inspection mark.
- The MS pipes of SAIL ISI marked spirally welded black pipes minimum thickness 7.10 mm for pipes above size 150 mm diameter & minimum 4.5 mm thick for pipes below 150 mm size.
- The materials without RITES Ltd/ CIPET / PDIL Ltd., inspection and without RITES Ltd/ CIPET / PDIL Ltd. inspection mark, shall not be accepted. All the materials should also be ISI Marked.
- The DI pipe should confirm IS:8329:2000 & its subsequent amendments and DI Fittings should confirm IS:9523:2000 and its subsequent amendments, if any.
- The CI fittings confirming to relevant IS shall be procured from SSI unit products.

9.5 Excavation of trench & laying of pipe line shall be following to respective IS-3589-2001.

9.5.1 Excavation and preparation of Trenches for laying underground pipe line.

The trench shall be so dug that the pipe may be laid to the required alignment and at required depth. When the pipe line is under a roadway, a minimum cover of 1.0 m is recommended, but it may be modified to suit local conditions by taking necessary precautions. The trench shall be shored, wherever necessary and kept dry so that the workman may work therein safely and efficiently. The discharge of the trench dewatering pumps shall be conveyed either to drainage channels or to natural drains and shall not be allowed to be spread in the vicinity of the worksite.

9.5.2 Trenching.

Trenching includes all excavation which is carried out by hand or by machine. The width of the trench shall be kept to a minimum consistent with the working space required. At the bottom between the faces, it shall be such as to provide not less than 200 mm clearance on either side of the pipes each case should, however, be considered on its merits, having regard to the safety of the trench, the method of laying and jointing the pipe and the need to avoid damage to pipe coating. The

bottom of the trench shall be properly trimmed to permit even bedding of the pipe line with minimum 100 mm thick sand bedding.

9.5.3 Pits for joint.

When welding is to be carried out with the pipe in the trench, additional excavation of not more than 600 mm in depth and 900 mm in length should be provided all round the pipe at the position of the joints for facilities of welding.

9.5.4 Pipe laying.

Laying of pipes underground.

The procedure for trenching as described CPHEEO manual shall be carefully followed. Before the pipe is lowered, the trench shall be carefully examined to determine that an even bedding is provided for the pipe line and that the pipe may be lowered into it without damaging the coating.

Laying of pipes above ground.

The procedure for handling the pipes and for lowering and assembling the pipes underground as described in IS 5822-1994 should be followed for lifting and laying the pipes on supports or on ground. The pipe line laying the pipes on supports or on ground if the soil is non aggressive. The ground should, however, be dressed to match the curvature of the pipe shall for an arch length subtending an angle of 120° at the centre of pipes. Alternatively, the pipe line should be laid either on saddle or roller and rocker supports as specified by the authority.

Backfilling.

Backfilling should closely follow the welding of joints of the pipe so that the protective coating should not be subsequently damaged. Material harmful to the pipe line shall not be used for backfilling. Refilling shall be done in layers not exceeding 300 mm. Each layer shall be consolidated by watering and ramming, care being taken to prevent damage to the pipe line. The filling on the two sides of the pipe line should be carried out simultaneously.

9.6 Design Basis:

All design shall be best on the best modern practices enumerated in the standard text book/ reference books and hand books by author of international and national repute reference books like the Manual on Water Supply and Treatment by CEPHEEO, Government of India latest Indian Standard code of practice and specification norm fixed by pollution board and state/ central Electricity Authority/ European union British/AWWA standard shall also be followed whenever required. In case of any contradiction the decision of the competent authority of the department shall be final.

For computer aided design the contractor shall use only widely accepted standard software of international/ national repute.

Thumb rule design based on the contractor's own experience / substandard books and literature/ substandard software shall be outrightly rejected.

9.7 APPROVAL OF THE DESIGN & DRAWINGS

- i) On acceptance of the tender, the letter of acceptance or the work order shall be communicated to the successful tenderer.
- ii) The contractor shall submit to the Department two sets of drawing showing the plan, elevation and perspective view, general arrangements of the structures with piping and valves etc. and structural design and drawings as per the specifications in this DTCN & in a manner as described in the preceding paras within 20 days of issue of letter of intent. If the agreement is not signed eventually the contractor shall have no claim on account of whatever designs and drawings furnished by him.
- iii) The drawing and designs shall be scrutinized and preliminarily approved by the Department after obtaining clarification and / or revisions of the same as required from the contractor. One set of preliminary approved designs and drawings shall be returned to the Contractor.
- iv) On receipt of Preliminary approved designs and drawings, the contractor shall within 15 days submit ten sets of corrected designs and drawings to the Department for according final approval.
- v) These designs and drawings shall be again examined by the Department with reference to the preliminary approved and shall be finally approved. One set of finally approved designs and drawings shall be returned to the tenderer.
- vi) The Department reserves the right to make minor modifications in the drawing not involving major revision of designs at any stage during execution of work.
- vii) In case the contractor fails to submit the designs and drawings in proper order within the stipulated time, the letter of acceptance of the tender is liable to be cancelled and earnest money is liable to be forfeited.
- viii) The designs shall be prepared by the qualified and experience Engineers employed or engaged by the contractor. The approval of the design and drawings by the Department does not absolve the responsibilities of the contractor on structural stability.

9.8 Technical Specifications: Medium Voltage A.C. Motors:

- i) All A.C Medium voltage squirrel cage induction motors shall be designed, manufactured and tested in accordance with the requirements. All AC induction motors shall fully conform to IS:325-1978.
- ii) The TEFC induction motors shall be designed for the maximum ambient temperature of 550C. The relative humidity (RH) can be upto the maximum of 100%. But the maximum ambient temperature and 100% relative humidity both may not occur simultaneously.
- iii) The Motors shall be designed for an over load capacity of 115% of rated capacity for frequent operations.

- iv) The insulation class of motors shall be B/F and degree of protection to be provided by the enclosure shall be IP 55 in accordance with IS:4691-1968. Degree of protection provided by enclosure for rotating electrical machinery.
- v) The motors shall be designed for Star Delta Starting.
- vi) The motor body shall have two separate earthing terminals for earthing in compliance with Indian Electricity Rules.

9.9 Cables :

- i) The multi core 1.1 KV grade power and control cables shall be included under the scope of supplying, laying and terminating of power/ control cables.
- ii) Power Cables : The 1.1 KV grade power cables shall be PVC insulated, PVC sheathed armoured, aluminium conductor. The minimum size of each core power cable shall be 6 sqmm. The power cables shall conform to IS:1554 (Part-I) 1964.
- iii) Control cables : The multi core 1.1 KV grade control cables shall be PVC insulated, PVC sheathed armoured, copper conductor. The minimum size of each core shall be 2.5 sqmm. The control cables shall conform to IS:1554 (Part-I) 1964.

9.10 Cable Laying :

- i) All the precautions, customaries in modern code of practices shall be observed with while laying of cables. Latest IS, code of practices shall be followed for laying of cables. The underground cables for 1.1 KV grade for power/control shall be laid at a depth of 800 mm and after laying of cables the excavated earth trenches shall be back filled wherever required.
- ii) When cables cross existing cables, water main and sewers the, cables shall be laid at least 300 mm below existing cable or water mains. Where the cables have to cross deep drains, the crossing shall be covered by fixing protective RCC pipe across the drain.
- iii) All 1.1 KV grade power and control cables run on cable trays/racks shall be laid touching each other but shall be in one layer only.
- iv) Cables of different voltages shall generally be laid on separate trays, where this is not possible; cables may be installed on the same trays with suitable barriers. At least 20 percent space on each tray shall be kept reserved for future installation.
- v) Cables laid on vertical tray shall be clamped to the ranges at regular intervals using PVC cable strips, also cables entering or leaving cable trays shall be adequately supported or protected.
- vi) Cable trays shall be provided with sheet steel covers.

- vii) In the main plant buildings, sub-stations, control room etc. power and control cables shall be generally be taken on cable trays laid in tunnels, concrete trenches, cable cellars/ basements or along building structure, walls ceilings etc. Cables routed from tunnels/ trenches, the cables shall be taken to embedded/ exposed rigid steel conduits or flexible conduit unless directly terminated to the equipment located above the tunnel/ basement/ trenches.
- viii) Cable for lighting installation shall generally be run on buildings, structures, ceilings, walls etc. provided in concealed PVC conduits conforming to relevant IS.
- ix) The RCC pipe protection for cables shall be provided for crossing the roads.
- x) All cable entry openings for the equipments shall be sealed and made vermin proof.

9.11 Cable trays/Racks :

- i) The cable trays/ racks shall be designed, fabricated, supplied and installed suitably. The racks shall be fabricated ladder type made of MS angles and flats/rods. These shall be properly painted. The racks shall be of standard width of 300 mm or 600 mm suitable wherever required & shall be flush with walls etc. i.e. conceal type.
- ii) The vertical and horizontal supports for the cable racks shall be fabricated steel sections/rods. The spacing of cable trays supports shall be to suit the loading of the racks but shall not exceed 1500 mm vertical spacing between the two racks & not less than 300 mm.
- iii) All 1.1 KV grade power and control cables run on racks shall be laid touching each other but shall be in one layer only.
- iv) Cables of different voltages shall generally be laid on separate trays, where this is not possible; cables may be laid on the same racks with suitable barriers. At least 20% space on each rack shall be kept reserved for future installation. All LT cable and control cables laid on trays/racks should have identification tags at every 5 meters of length.
- v) All cable trays shall be protected by sheet steel covers duly bolted/screwed.

9.12 Earthing :

Earthing for all installations as per IS:3043 –1966 shall be included in the scope. The earthings shall include all the motor control center control post, cable racks, and illumination and ventilation installations. The size of G.I. strips to be used for earthings for different equipments shall be suitably selected and shall be subjected to the approval of the Department and shall meet the stipulation of the Indian Electricity Rules and Regulations to the satisfaction of State Government Electricity Inspector.

9.13. Power Supply:

i) **General Requirement**

The installations shall generally be carried out in conformity with the requirements of Indian Electricity Act 1910 as amended up to date and Indian Electricity Rules, 1956 framed there under, the relevant regulations of the Electric Supply Authority concerned and also with the specifications laid down in the Indian Standard IS:732/1963 "Code of Practice (Revised) for Electrical Wiring Installations (System Voltage not exceeding 650-V)". The work shall be executed as per the National Electrical Code and if any item is not covered there under or there is any doubt, the specification approved by the Engineer-in-Charge will be final and binding.

Ambient Conditions:

All Electrical installations and equipment shall be suitable to work in following ambient conditions.

Maximum temperature	:	50 degree Celsius
Relative humidity	:	100%
In the vicinity of	:	Bhabanipatana

System Conditions:

The Electrical installation and equipment shall be suitable for operation in the following system conditions.

Supply voltage	:	415 volts $\pm 10\%$
Supply frequency	:	50Hz $\pm 5\%$
Number of phases	:	Three

ii) **Scope:**

a. Materials

All the materials, fittings, appliances used in electrical installations shall conform to Indian Standard Specifications wherever these exist. A list of approved materials is attached in Annexure-I. Materials not included in the list as well as any particular made not included in the list should be approved by the Consultant or Engineer-in-Charge before use. All required materials covered under this specification shall be supplied and installed by the contract complete in all respect except in cases where it is clearly mentioned otherwise. The materials and accessories required for completing the work will form part of the work although they have not been specified separately.

Selection of Materials and installation work shall be such as to simplify operation, inspection, maintenance and testing. The work shall include all reasonable pre-cautions and provision for safety of operation and maintenance personnel.

b) Standard:

Unless otherwise specified, all materials covered under this specification shall be designed, manufactured, tested and installed in conformity with the latest Indian Standard specifications. In case such Indian Standard Specifications are not published equivalent British Standard Specifications shall be followed. All equipment shall conform to latest Indian Electricity Rules, PWD and Local / State laws or bye-laws as regards to safety, earthing and other essential provisions specified therein.

All equipment and materials selected shall also be supplied and installed taking into consideration the Factories Act, Fire Regulations and Local laws or bye-laws. All light fittings and equipment selected shall be of well tied out design. All materials used in the assembly of fittings and their accessories shall be of high quality and manufactured in accordance with the best modern practice.

All the materials supplied by the contractor according to the contract conditions will be subject to inspection and approval by the consultant or / and Engineer-in-charge or their authorized representative from time to time. The contractor shall extend all required facilities for such inspection free of cost. At the time of inspection, the inspecting officer shall have full liberty to reject any such material, which does not confirm to specifications or the requirements. The owner shall not entertain any claim for the rejected materials. The contractor shall remove all rejected materials from the site at his own cost.

The owner shall not accept any surplus materials procured by the contractor.

The contractor will be responsible to get electrical installations inspected by the Electrical Inspector of the State Govt. and to obtain the statutory clearance for energisation. The owner will reimburse the necessary inspection fees on production of documentary evidences.

The contractor should possess valid electrical contract license and labour license issued by the appropriate statutory authority of the State Govt. during the execution of the Contract.

The contractor shall be registered with provident fund Department for engagement of Labourers / Employees.

c) Inspection & Approval

The contractor shall put up samples of all major items for inspection and testing the consultant and or Engineer-in-Charge for which the contractor shall furnish minimum 10 days clear notice in advance to enable them to depute their Inspecting Officer. Similar procedure shall be adopted for the approval of samples of minor materials / accessories to be used for the work.

iii. **LIST OF APPROVED MAKE**

SN	MATERIAL DESCRIPTION	MAKE OF MATERIALS
1	Non-Metallic conduit & accessories	Berlia /Uniflow /Sudhakar
2	Switch, socket, Holder, Ceiling Rose etc.	Anchor /Cona
3	PVC Insulated wires	Finolex/ KDK/ Rajanigandha/ Anchor/ NICCO/ L&T / Havells
4	Bakelite sheets	Hylam /Formica
5	PVC Insulated cables (ISI Mark only)	NICCO/ Finolex/ Crystal/ Fort Gloster/ Poly Cab
6	Cable lugs	Dowells/ Ismal/ Clipon
7	Cable joining Kits	M. Seal
8	Switchgears viz., Isolator Switches, SFU, Starter, change over switch, HRC fuse holder etc.	Siemens /L&T
9	MCB RCCB & Associated Distribution Board	HPL/ Havells/ Standard /Indo Asian
10	MCCB	Seimens/ L&T/ ABB/ Legrand
11	Instrument viz colmeter etc	AE/IMP/ Meco/ Cosmo
12	Selector Switch	Kaycee/ Saltzer
13	Timer /Time switch	L&T/ Hanger/ Legrand
14	Energy Meter	GEC/ Capital Jaipur
15	LT Distribution Board (Fabricated)	ESS/ Technocrat/ Utkal
16	Kit Kats	BPC/ Anchor
17	HRC Fuses	Siemens/ L&T
18	CTs & PTs	AE/ Kappa/ Eastern Switchgear
19	Metal Clad plug Socket	Crompton/ Havells
20	Fluorescent Fixtures	Philips/ Crompton/ Bajaj/ PAC
21	HPSV/HPMV/LPSV Luminaries & PL/SL Lamp Luminaries /Metal Hamide	Philips/ Crompton /Bajaj
22	Incandescent lamp Luminaries	Decon/ Philips/ Crompton/ Bajaj
23	Lamps (LED /HPMV/LPSV/ Fluorescent, Incandescent)	Philips/ Bajaj/ Crompton/ Sylvania
24	Ceiling Fans	Crompton/ Khaitan/ Usha/ Bajaj/ Polar/ Orient/ Ortem/ Almonard
25	Exhaust Fan	Almonard/ Crompton/ Khaitan
26	Call Bell & Buzzers	Anchor/ Cona/ Rider
27	Electronic Regulator & Dimmer	Anchor/ Cona/ Rider
28	Adhesive & Insulating Tapes	Streel grip
29	G.I Pipes	TATA/ Jindal/ Prakash
30	Transformer	Alfa/ OTPL/ OEU/ Bright
31	A.B Switch	S&S/ Motison/ Odisha Electrum /Sigma
32	H.G Fuse	S&S/ Motison/ Odisha Electrum / Sigma
33	Lightening Arrestor	Oblum/ WS/ IGE

9.17. General for all Buildings & Structures :

- a) Required type of foundation as required with respect to actual soil condition & soil parameters, SBC bore log, position of maximum subsoil water table in worst rainy season condition shall be provided for the units of UGR/ ESR, buildings and other structures as per actual design requirements satisfying the requirements of books of reputed authors & IS codes maintaining safety.
- b) Minimum free board (FB) of 150mm shall be provided for channels unless specified separately and the Filter Boxes in which case it shall be 500 mm.
- c) All channels, launders, conduits etc. shall be designed for 50% overload.
- d) No age factor shall be allowed in the design of the structures.
- e) The plinth level of all the buildings shall be **0.75 m** above the general ground formation level unless otherwise specified.
- f) The room height (between finished floor level and ceiling) of the office building, Pump house shall be not less than **3.60 mtr.**
- g) Plain cement concrete of grade **M-15** of thickness not less than **100mm** shall be provided below the RCC floor slab and the footings and foundation unless otherwise specified specifically.
- h) Mechanical type water level indicator shall be provided in reservoirs. All other related items required for completeness of the reservoirs for smooth functioning shall be provided.
- i) In case of Overhead tank of shaft staging there shall be an entrance door at plinth level and ventilators at suitable locations. The plinth shall be provided with suitable flooring over a base course.
- j) All Iron works shall be painted with two coats of approved anticorrosive synthetic enamel paint over a coat of primer. All wood works shall be painted with two coats of approved paint over a coat of primer.
- k) All External surfaces shall be painted with two coats of Weather proof acrylic emulsion paint of approved colour over a coat of primer. The Engineer-in-charge shall approve the computerized colour code prior to application of paint.
- l) The specification of **building works** shall be as below:

i) **Brick work:**

Brick masonry shall be of Fly-ash Bricks/First class KB bricks in cement mortar (1:4) in foundation and plinth. All non-load bearing outer walls shall be minimum 250mm thick & inside partition walls shall be minimum 125mm thick. First class KB bricks in cement mortar (1:6) in superstructure. The thickness of plaster shall not be more than 20 mm for outside face & 15 mm for the inside face.

ii) **Plastering :**

All brick works with 16 mm thick cement mortar in 1:6 & all RCC exposed surfaces & roof ceilings except for the Water retaining structures shall be with 12mm thick cement mortar in 1:4 unless specifically mentioned.

iii) PCC :

Minimum 100mm thick **M-15** under RCC foundation and flooring.

iv) Painting / Colouring over Plastering:

All External surfaces shall be painted with two coats of Weather proof acrylic emulsion paint of approved colour over a coat of primer. All internal surfaces of all the buildings/Room shall be given with two coats of distemper paint over a coat of primer. Ceiling of all round of building shall be painted with two coats of white distemper over a coat of primer.

v) Flooring :

Level of flooring shall be 0.75m above the virgin soil at respective structures. There shall be sand filling between the virgin soil & the floor. The flooring shall be of ceramic tile flooring. The dado in all types of flooring shall be of 0.3mtr height.

- a) The contractor shall provide necessary sun shades/ Chajja etc. wherever necessary.
- b) The contractor shall provide ramp with gentle slope to the buildings wherever required.
- c) Plinth protection for a width of 1.00 m around all the buildings shall be provided. It shall be C.C. checkered floor over 100 mm PCC.
- d) All roofs shall be provided with grading plaster of 25 mm thick in 1:4 cement plasters with required grading for drainage. There shall be drainage pipes of 110 mm PVC pipes with all fixtures and specials extending up to the surface drain for disposal of rainwater. The number of pipes shall be as per the roof drainage plan to be approved by the Department. A DPC coarse in 1:2:4 concrete shall be provided at plinth level for a thickness of 40mm for all buildings.
- e) There shall be parapet walls of 250 mm brick masonry up to 600 mm height above the roof of all buildings.
- f) Expansion joints shall be provided in exposed pipelines as per standard practice & in conformity with relevant IS Specification.

vi) In the event of any deviation from the desired strength, the contractor shall dismantle the defective parts of the construction and make good the same at his own cost. All the building materials including steel rods shall be tested in recognized testing laboratory to be selected by Department at the cost of the contractor. Any material found defective/not to specification shall be replaced forth with by the contractor without any extra financial implication.

vii) All reinforcement shall be checked and recorded prior to concreting by the Engineer-in-charge or his representative and the contractor shall countersign this. Entire concreting work shall be done in the presence of an officer not below the rank of Assistant Engineer, the contractor shall, therefore, give notice of at least two days to the Engineer-in-charge or his representative so that the works can be checked by him or his authorised representative.

viii) Form Work:

1. The form work shall be of steel plates of steel frame, sound and seasoned timber or of any approved materials, having sufficient strength to hold the concrete and withstand ramming and vibrations. If timber shuttering is used it shall be constructed in such a way that none of the concrete grout leaks away and shall be such as to leave a clean smooth surface not requiring further plastering. The surface of all forms in contact with concrete shall be clean, rigid, tight and smooth. Before a piece of work on formwork is concreted, the formwork shall be cleaned of all mortar, shavings, concrete from previous work and all other dirt. It shall then be covered with thin coat of Mobil oil.
2. The joints in the form work shall be arranged in a regular pattern.
3. Shuttering shall be provided to concrete faces where the slope exceeds 1:2½.
4. The stripping time of all form work shall be in accordance with recommendations contained in **IS:456**.

a) Concrete face work:

The exposed faces of concrete shall be true to line have smooth surface and without roughness occurring between successive sections of shuttering. In removal of forms, minor uneven surface defects shall be picked out to such a depth, refilled and properly replaced with such class concrete as necessary. All pin holes shall be plugged.

The surface of non-shuttered faces of concrete shall be finished with a wooden float to give a finish equal to that of the rubbed down shuttered faces. The top faces of slabs not intended to be surfaced shall be levelled and floated to a smooth finish.

h) Embedment and Anchorages:

All the embedment and anchorages shall be provided by the contractor and shall be rigidly fastened. Anchor bolts and other anchorages or inserts shall be set to template and /or firmly secured in position.

i) Grouting :

Nominal minimum strength of grouting concrete shall be 40 N/mm² or such other values as may be shown on the approved drawings. The nominal maximum size of aggregate for grouting concrete shall be 10 mm.

In case 'Dry' concrete or mortar is used, slump shall not exceed 6 mm. If 'Wet' expanding concrete or mortar is used, slump shall be at least **125mm** or more but not exceeding 225 mm. An expanding grouting admixture shall be of approved type and in accordance with the manufacturer's instruction.

j) **Doors/Window/Ventilators/Grills :**

1. There shall be adequate nos. of doors & windows in all the buildings/structures.
2. The area of openings shall not be less than 25% of floor area.
3. All windows shall be with aluminium frame & 5 mm thick reinforced glass panels provided with all related aluminium hardware fittings. The shutters shall be of sliding type in two folds.
4. All doors except for those specified separately shall be with aluminium frame & 12mm thick pre laminated plywood panels provided with all related aluminium hardware fittings.
5. There shall be adequate nos. of ventilators of size 750mm x 300 mm fitted with decorative RCC Jally.
6. There shall be MS grills of member thickness not less than 5mm of decorative designs fitted to all the windows of the office and laboratory building, chemical storage area for safety. Similarly, the Grill Gate to be fixed to the boundary wall shall be approved design and of 2.0m. height.
7. The panels of all external doors, toilets, filter house shall be of waterproof pre-laminated plywood shutter of minimum 12mm thickness.
8. The specifications of aluminium frames for doors & windows shall be as per relevant ISS & suitable from aesthetic point of view to be approved by Department.
9. All other materials used in doors & windows shall conform to relevant ISS and to be approved by Department.
10. The fixing of doors & windows shall conform to relevant ISS.

9.18. Steel & Structural Fabrication:

i) **Method and Material for construction:**

Steel structures shall generally be of welded construction. Structural steel shall conform to IS:226 or IS:2062 as required from design considerations. In welded construction plates up-to and including 20 mm thickness and rolled section shall be of grade St.42 conforming to IS:226. Plates above 20 mm thickness, where welding is employed shall be of steel grade St.42 conforming to IS:2062. Electrodes, bolts, nuts, washers etc. shall conform to relevant Indian Standards. Only tested materials shall be used and all test certificates are to be submitted by the Contractor.

ii) **Fabrication:**

The fabrication of structures shall be carried out as per relevant India Standards and also according to latest practices. Steel structures shall be *fabricated* to suit transport requirement and minimum site work.

All steel structural works shall be subjected to inspection by the engineer-in-charge.

All permissible tolerance in workmanship shall be as per IS:7215.

iii) **Erection:**

The erection shall be carried out as per relevant Indian Standards. The minimum tolerance for alignment and level of the steel work shall be + 3 mm on any part of the structure. The structure shall not be out of plumb by more than 10 mm. These tolerances shall apply to all parts of the structure.

iv) **Painting:**

All the steel works shall be painted.

Painting operation and paint schedules shall be as per IS:1477 (part-II).

All steel structural other than in chemical house shall receive one coat of red oxide zinc chromate primer conforming to IS:2239 after fabrication and one coat of the same primer after erection. Steel structures in chemical house shall receive acid / alkali resistant epoxy based primer.

Priming coat shall be followed by two coats of painting by approved quality colour shade paints. Steel structure in chemical house shall be painted with acid/alkali resistant epoxy-based paint.

Before starting actual painting operation, the members to be painted shall be thoroughly cleaned of all dirt, grease, rust, scales etc.

9.19. Disposal of Surplus Earth & Debris after construction

The surplus left over earth and debris after completion of erection work and leveling the site shall be transported and dumped in areas as directed by the Department's Engineer without any extra claim.

9.20. Make of Electrical & Mechanical Equipment:

The following makes shall only be allowed unless specifically mentioned elsewhere in this DTCN.

- a) **Sluice Valves:** Kirloskar/ Fouress/IVC/ Calsons/ IVI
- b) **Butterfly valves:** Audco/ KSB/ Fouress/ Kirloskar/ IVC or IVI/ Calsons
- c) **Air Valves:** IVI or IVC/ FOURESS/ Calsons
- d) **Liquid level indicators:** Krohne/MEI
- e) **Cable:** NICCO/ Finolex/ Havells/ Reliance/ OMEGA/ CCI/ Uniflex
- f) **MS pipes:** ERW pipes from SAIL/TISCO/Jindal
- g) **DI pipes:** Electrosteel / IISCO/ Kesoram/Jindal any other make confirming to IS: 8329/ 2000 & its subsequent amendment if any
- h) **GI pipes and fittings:** TATA/Jindal
- i) **All Luminaries and ceiling fans, exhaust fans:** Phillips/Bajaj/Crompton/ Havells
- j) **Paints, distemper:** Johnsons Nicholsons/ Asian Paint/ Berger paints
- k) **Other Accessories :** The firm shall clearly state the make which shall be approved by Department.
- l) **Vertical Turbine pumps:** KIRLOSKAR / BCH / SIEMENS / GRUNFOS / MATHER PLATT)
- m) **Pumps:** Kirloskar / Mather & Platt / Voltas / Greaves/KSB/WPIL
- n) **Motors:** Kirloskar / Siemens / CGL / Alsthom / GEC/KSB/WIPL

o) Solar Instrument :

- i) **LED light-** Havells, crompton, Philips, Panasonic, Wipro, Bajaj
- ii) **Pannel -** Adani, HR Solar, Shanti Solar, Tata, Eece, Icon, Halonix, Livguard, Genus
- iii) **Pole-** Bajaj, RR Ispat, Valmont, Utkarsh

9.21. Piping & Valves:

Specifications for C.I. pipe	:	IS:1536-1989 Class-A flanged and Tested.
Specifications for C.I. fittings	:	IS:1538-1976 (part-1 to 24) tested.
Type of joint	:	Flange Joint.
Code of practice for laying	:	IS:3114
Test pressure	:	1.5 times the working pressure subject to minimum 1.0 kg/cm ² for 24 hrs.
Specifications for D.I. pipe K-9	:	Socket & Spigot ended Centrifugally Cast (Spun) Ductile Iron (K-9) Pressure Pipes for water main and distribution line of different sizes conforming to I.S: 8329/2000 and subsequent amendments, in standard lengths suitable for Rubber Gasket ('Push-on' flexible joint) jointing with inside cement mortar lining and with an external bituminous coating and duly ISI marked.
Specifications for D.I. pipe K-7	:	Socket & Spigot ended Centrifugally Cast (Spun) Ductile Iron (K-7) Pressure Pipes for water main and distribution line of different sizes conforming to IS 8329:2000 & subsequent amendments, in standard lengths suitable for Rubber Gasket ('Push-on' flexible joint) jointing with inside cement mortar lining and with an external bituminous coating and duly ISI marked.
		The pipes are to be get inspected by the Quality Assurance Wing of PDIL/CIPET/RITES and the consignments are to be embossed with the PDIL/CIPET/RITES inspection mark.
MS pipe work :		
Specifications	:	I.S:5504/1997 for spirally welded pipes,

		I.S:3589/2001 : Seamless or electrically welded ERW / SAW steel pipes.
Wall Thickness	:	Not less than 5.5mm for pipes up-to 200mm dia. & 8 mm for pipes above 200mm dia.
In-lining & out coating	:	As given in IS:10221-1982/IS:5822-1986 as applicable
Laying	:	IS:5822/1986
Flange thickness	:	As per relevant ISS
H.D.P.E pipes & fittings		For internal water supply/sewerage : Relevant ISS.
DI pipes & fitting & their laying	:	As per IS:8329/2000, IS:9523/1980 & IS:12288/1987
Pump Delivery sluice valves & scour valves.	:	Double flanged sluice valves, Rising spindle, Rating : PN 1.6 (16 kg/cm ²) or as per requirement whichever is more. IS:780, IS:2906, Body: CI Spindle: SS, AISI -410
Non-return valves	:	Double flanged swing check type, rating : PN 1.0 (10 kg/cm ²) or as per requirement whichever is more. IS: 5312, Body: CI, Disc : CI, Spindle: SS, AISI -410.
Throttle valve/ Control valve	:	Butterfly valves (Rating 10 kg/cm ²) suitable rating BS: 5155, AWWA : C-504, Body : CI Disc: CI, Spindle :SS AISI-410.
G.I. Pipe Work :		
Specification for pipe	:	IS:1239 (Part-I) G.I. Screw/Socket end tested (Heavy)
Specification for fittings	:	IS:1239 (Part-II), GI, Screw end tested.
Valves, stop cocks, bib cocks	:	IS:778, Gun Metal Construction, screwed.
Pillar Cocks/Taps	:	IS 1795/ 1982 Chromium Plated.
Chemical Pipe Work :		
Specification & material for chemical dosing pipe.	:	IS : 4985/2000 H.D.P.E.
Specification & material for chemical scour/ drain pipe	:	IS : 3006 chemically resistant stoneware
Valves	:	Teflon, Double flanged Diaphragm type.
Regulating throttle valve	:	S.S. Slim seal type butterfly valves.

1. Solar Panel 545W / 24V Mono PERC	
PARAMETER	SPECIFICATION
Peak Power Pmax (Wp)	545
Maximum Voltage Vmpp(V)	40 - 42.02
Maximum Current Impp(A)	11.5 - 12.98
Open Circuit Voltage Voc (V)	45 – 55
Short Circuit Current Isc (A)	12 – 15
Max Series Fuse Rating	25 A
Module Efficiency (%)	18 - 22
Nos. of Solar cell per module	144
Product Warranty*	12 Years
Performance Warranty**	Guaranteed power output 90% warranty for 15 years and 80% for 25 years
2. SOLAR MPPT PCU 3 KVA/48V	
Type	Solar Inverter
External Battery Support	Yes
Power Output	4 KW
Warranty Duration	60 Months
SPV	72-180V
MAX SPV power	5KW
Controller	DSP/Equivalent
Efficiency	>95%
Output Wave from	SINE WAVE
Protection Class	IP20
Battery Capacity	48V
3. TUBULAR BATTERY 12V 165 AH	
Application Area	Commercial Applications
Capacity @ C10 (Ah)	165 Ah
Nominal Voltage (V)	12 V
Height up to terminal (±3 mm)	410 mm
Length (±3 mm)	505 mm
Width (±3 mm)	190 mm
Filled weight (±5% Kg)	60 kg

9.22. Technical Requirement:

All the valves shall confirm to relevant **BIS/BS/AWWA** and bear such embossed certification mark.

Valves, wherever required, shall be provided with extended spindle (AISI-410 material) and head stock so that hand wheels can be provided at 1.2 m level for manual operation.

All valves for water supply & air applications shall be CI (IS:210, FG:220) body with 13% Chrome-steel (AISI-410) spindle and seat & seat ring made of gun metal. All valves for chemical & corrosive application shall be Teflon body & internals.

The valves shall be double flanged body with 'raised-face' flanges and drilling to conform IS: 1538.

RCC Valve chambers/CI surface box as required shall be provided for the valves with CI lockable manhole of standard size.

Suitable anchor blocks shall be provided at bends and other locations where unbalanced forces may develop under normal operation, during power failures, during reverse flow or during testing of pipe line that tend to cause movements in the pipe line.

Valves of size NB 300 and above shall be installed with a dismantling joint or short-piece in the pipe line to facilitate easy replacement.

On completion of erection, trial-run and testing all the pipelines, valves and fittings shall be cleaned thoroughly and painted with 2 coats of enamel paint over by 1 coat of primer. The colour code shall conform to Department's norms for identification of raw water/ clear water/ spent water/ wash water/ air etc. The flow direction shall also be stencilled on the pipe lines.

The scope of work for the tender includes entire piping work & valves of all types as per actual requirement at site for the completeness of the project. Any variation in piping work & valves shall be borne by the contractor and shall not be entertained for extra payment.

9.23. Instrumentations:

The scope of work for the contractor shall include the following instrumentations. The Instrumentation shall be of latest technology and best of their kind used in Water Works. The contractor shall furnish **2-3 makes** with copies of catalogues along with his tender documents that he intends to supply under this scope of work and same shall form a part of contract. The instrument shall be suitable for indication in MKS Units and the respective dials shall be calibrated and printed accordingly.

The electromagnetic full bore type bulk flow meter shall be of reputed make having MID approved and CE marked confirming ISO specification.

Pressure gauges shall be preferably '**Dial**' type with min. 100 mm dia. Dial. The range for the pressure gauges shall be 2 times the normal working pressure of the pipe line. The pressure gauge shall be mounted in vertical position with a three-way cock. It shall have the scales in metric system.

All other Instrumentations mentioned elsewhere in this Agreement shall have to be provided in addition to the above. Besides, any instrumentation which is not indicated above but shall be required for completeness of a system shall have to be provided by the contractor without any extra claim.

9.24. Inspection, Testing, Trial-Run, Guarantee Test, Operation & Maintenance Manual, Completion Drawings, Guarantee & Acceptance General:

- All equipment, accessories, auxiliaries, piping, electrics, instruments, installations, construction, buildings etc. including all mechanical, electrical & civil engineering works covered under the scope of work of contractor shall be subjected to inspection & testing by the Department for its material, quality, workmanship and

the performance. The contractor shall arrange and carry-out all such inspections, testing, trial-run etc. and demonstrate in presence of the Engineer-in-Charge of the Department.

- The cost of such inspection, testing, trial-run, demonstration etc. shall be borne by the contractor. All responsibility of such inspection, testing, trial-run, demonstration etc. and any damage/loss that may cause directly or indirectly shall exclusively rest with the contractor.
- Such inspection, testing, trial-run, demonstration etc. shall, however, not relieve the contractor of their liability for replacing/ rectifying any defects which may subsequently appear or be detected during erection and guarantee period.
- Copies of certificates for materials test, hardness, balancing test along with other routine shop's quality assurance tests shall be furnished by the contractor prior to carrying out of the inspection and testing.

(ii) Tests at works:

- All equipment, sub-assembly and components, auxiliaries and accessories shall be tested at manufacturer's works in accordance with relevant Indian Standards/International Standards. The contractor shall furnish all test certificates etc. related to the quality of all the materials to the Department along with the delivery of the materials at site without which no payment shall be released. However, such test certificates, quality assurance certificates shall not relieve the contractor of it's obligation to replace forth with any instrument/ materials found defective during tests at works/ trial running period/ guarantee period.
- Testing for performance of equipment shall be carried out and be checked with the approved parameters and performance characteristic curves for the purpose of acceptance.

(iii) Tests at Site:

- On completion of erection, all equipment, accessories, auxiliaries, piping, electrics, controls, instruments etc. covered under the scope of work of the contractor shall be tested to demonstrate their smooth operation and proper functioning. All instruments, gauges, interlocks etc. shall be for calibration and for proper functioning during the test. All testing requirements specified elsewhere in this specification and mentioned in relevant Indian standard / International Standards shall be carried out by the contractor. All defective items or any defects observed during the test shall be replaced and/ or rectified by the contractor and test shall be repeated.
- All the water retaining structures shall be tested for **water tightness** as per relevant IS code of practice before starting of Trial run.
- The contractor shall also carry out at site, any tests, which may be required by the State/ Central Government, State Pollution Control & prevention Board and/or any other Statutory Body.

(iv) Trial Run & Hydraulic testing:

- On completion of erection and testing at site the Tenderer shall carry out trial-run & hydraulic testing of all individual items one after another. The duration

of trial run & hydraulic testing for individual items shall be not less than 24 hours in continuous operation. On satisfactory performance of individual items, trial-run & hydraulic testing of composite units, one after another and then of complete 'Installation' shall be carried out. The duration of each trial run' for each composite unit shall not be less than 48 (forty eight) hours continuous operation, and the duration of trial run for complete 'Installation' shall not be less than ninety six (96) hours continuous operation. All defective items or any defect is observed during trial run shall be replaced and/or rectified by the Tenderer.

- The detailed schedule of trial-run and procedure shall be furnished by the Contractor to be approved by Department. Proper record shall be maintained by the contractor for all such testing's and trial run.

(v) **Performance Guarantee:**

- The contractor shall guarantee the parameters, the rated capacity, discharge head, kilo wattage, energy consumption, time duration, water quality etc. for the individual items and for the complete installation.
- A penalty at a rate of two (2) percent of the contract price of the concerned Sedimentation tank/filter Bed/ Chemical dosing system along with the accessories & auxiliaries shall be imposed on the tenderer for every one (1) percent or part thereof shortfall in the rated capacity subject to a ceiling of five (5) percent maximum. In case the shortfall is beyond five (5) percent of the rated capacity, the concerned equipment/ facility/installation shall be rejected at Contractors cost and risk. No extra payment shall be permissible and be claimed by the contractor for any excess (+) tolerance in rated capacity.
- Any variance in tolerance beyond the permissible limit in '**quality' of drinking water** specified in Indian Standards and in Manual on Water Supply & Treatment published by Government of India, shall not be accepted and such installation be summarily rejected. The contractor shall collect the water samples from different unit processes as per requirement as per sampling methods given in Manual on Water Supply and Treatment by CPHEEO, Govt. of India/ Standard Methods for examination of water and wastewater, AWWA for water quality testing and test the **physical, chemical and bacteriological parameters** in any of the reputed laboratories to be certified by the Department at his cost and furnish the test report in support of the guaranteed water quality parameters. However, Department reserves the right to assess the water quality parameters independently through any reputed laboratory of it's choice to check quality parameters at the cost of the contractor.

Five copies of the approved manual for the plant shall be submitted to the Engineer-in-charge prior to the commencement of the maintenance period. They shall be securely bound in A4 sized loose leaf binders, clearly titled, indexed and cross referenced. The final Manuals shall incorporate instructions, recommendations, and advice for the operation of the entire process covering the full range of raw water conditions. If during the maintenance period, the Engineer-in-charge finds that the manual requires modification or enlargement

as a result of subsequent operational and maintenance experience in the works, the contractor shall provide approved modifications for each manual.

The manual shall also include a check list for the mechanical and electrical plant procedures for their smooth operation and maintenance broadly as follows:

- Calibration, adjustment, checking and lubrication of each component.
- Attention at weekly, monthly or other regular intervals to ensure reliable trouble-free operation.
- Complete overhaul, dismantling, reassembling and re-commissioning of various components.
- Identification and selection of suitable lubricants of various, Indian Manufacturer's suitable equivalents.
- Fault findings.
- Maintenance of protective coatings.
- Monitoring of water quality throughout the works including sampling techniques, laboratory and reporting procedure.

The work shall not be considered as complete unless this requirement has been met.

(vi) **Guarantee:**

The Contractor shall guarantee the design, materials, quality, workmanship and the satisfactory performance of all the equipment, accessories, auxiliaries, piping, electrical instruments, installations, constructions, buildings, facilities, infrastructure etc. under his scope of work for a period of **12 (twelve) months** from the date of commissioning. Any defects noticed during the guarantee period shall be replaced / rectified immediately without any extra cost to the Department.

(vii) **Acceptance:**

On completion of construction, the contractor shall clear all the left-over surplus earth, bricks, boulders, debris, scrap, temporary structures etc. from the construction site and present the entire premises in a neat and tidy manner. All units, equipment, tanks, reservoirs, pipelines etc. shall be cleaned thoroughly and disinfection shall be done. **On completion of finishing work, colour wash & painting work, the contractor shall provide name plates on the main units and shall stencil in bold letters the equipment code nos. & direction of flow on all the units, equipment, pipelines, valves etc.** The code nos. scheme shall be worked out in consultation with the Department.

Preliminary Acceptance:

On completion of successful testing, trial running, satisfactory performance guarantee test, successful training, submission of Manual, operating log sheets and completion drawings, the 'Installation' shall be preliminarily accepted by the Department and put into regular operation.

Final Acceptance:

On completion of successful testing, trial running, satisfactory performance guarantee test, successful training, submission of Manual, operating log sheets and completion drawings, the 'Installation' shall be accepted by the Department.

9.25 Testing and inspection.

Material test analysis.

All materials shall be furnished in strict accordance with the codes specified and in accordance with the detailed specification. All sources of material shall be disclosed and relevant test certificates for the physical and chemical properties of the material shall be made available to the owner before the final shop inspection.

Hydrostatic test.

All pipes shall be hydrostatically tested at manufacturers / fabricators shop as per relevant standard.

All piping, after completion of erection shall be tested hydrostatically at pressure as specified elsewhere. The hydrostatic test pressure shall be held for a period of at least 24 hours. However, the Owner's representative/ inspector may require longer period of inspection of all the welded joints and in such cases, pressure shall have to be maintained for a longer period as decided by Owner's representative/ inspector. Leak examination shall be carried out in accordance with ANSI B31.1.

All equipment, steel, temporary piping, instruments necessary for hydraulic testing shall be furnished by the Bidder. The Bidder will also arrange water for the test. Erected buried pipe lines shall be hydrostatically tested before sand wrapping of pipes and backfilling of excavated trenches.

All shop and site tests will be witnessed by the Owner or his authorized representative. At least 15 days advance notice shall be given to the Owner for the shop tests and at least 24 hours advance notice for the site tests.

- i) The form work shall be of steel plates of steel frame, sound and seasoned timber or of any approved materials, having sufficient strength to hold the concrete and withstand ramming and vibrations. If timber shuttering is used it shall be constructed in such a way that none of the concrete grout leaks away and shall be such as to leave a clean smooth surface not requiring further plastering. The surface of all forms in contact with concrete shall be clean, rigid, tight and smooth. Before a piece of work on formwork is concreted, the formwork shall be cleaned of all mortar, shavings, concrete from previous work and all other dirt. It shall then be covered with thin coat of mould oil approved by the purchaser.
- ii) The joints in the form work shall be arranged in a regular pattern.
- iii) Shuttering shall be provided to concrete faces where the slope exceeds 1: 2½.
- iv) The stripping time of all form work shall be in accordance with recommendations contained in **IS:456**.

- v) All **consumables required** for the trial run, performance guarantee test etc. shall be the contractor's responsibility. However, Department shall be responsible for the power consumption & supply of water during the above tests & trial run.

9.26. The specification of **building works** shall be as below:

i) Brick work:

Bricks should conform to IS 1077. First class Fly Ash Bricks in cement mortar (1:4) in foundation and plinth. All non-load bearing outer walls shall be minimum 250 mm thick & inside partition walls shall be minimum 125 mm thick. First class KB bricks in cement mortar (1:6) in superstructure. The thickness of plaster shall not be more than 20 mm size for outside face & 16 mm in the inside face.

ii) Plastering :

All brick works with 16 mm thick cement mortar in 1:6 & all RCC exposed surfaces & roof ceilings except for the Water retaining structures shall be with 12mm thick cement mortar in 1:4 unless specifically mentioned.

iii) PCC :

Minimum 100mm thick **M-15** under RCC foundation and flooring.

iv) Painting / Colouring over Plastering:

All External surfaces shall be painted with two coats of Weather proof acrylic emulsion paint of **Asian Paints (Apex) / Shalimar Paints (Xtra) / Berger Paint (Weather Coat)** make and of approved colour over a coat of primer. All internal surfaces of all the buildings/Room shall be given with two coats of distemper paint over a coat of primer. Ceiling of all round of building shall be painted with two coats of white distemper over a coat of primer.

v) Flooring :

Level of flooring shall be 0.75m above the virgin soil at respective structures. There shall be sand filling between the virgin soil & the floor. Different types of floorings to be adopted for different units as has been discussed under the respective structures in preceding paragraphs. AS flooring (cement concrete flooring) shall be of 25mm thick of 1:2:4 CC with punning over 75 mm CC 1:3:6 base. The dados in all types of flooring shall be of 0.3mtr height.

- a) The contractor shall provide necessary sun shades/Chajja etc. wherever necessary.
- b) The contractor shall provide ramp with gentle slope to the buildings wherever required.
- c) All roofs shall be provided with **grading plaster of 25 mm thick in 1:3** cement plasters with required grading for drainage. There shall be drainage pipes of 110 mm PVC pipes with all fixtures and specials extending up to the surface drain for disposal of rainwater. The number of pipes shall be as per

the roof drainage plan to be approved by the Department. A DPC in C.C 1:2:4 shall be provided at plinth level for a thickness of 40mm for all buildings.

- d) In the event of any deviation from the desired strength, the contractor shall dismantle the defective parts of the construction and make good the same at his own cost. All the building materials including steel rods shall be tested in recognized testing laboratory to be selected by Department at the cost of the contractor. Any material found defective/not to specification shall be replaced forth with by the contractor without any extra financial implication.

The steel rod shall be from **SAIL/TISCO/ VIJAG/JINDAL**.

The testing for water tightness of the structures shall be conducted as per **IS: 3370** and the results shall have to satisfy the relevant provisions of the above code.

All reinforcement shall be checked and recorded prior to concreting by the Engineer-in-charge or his representative and the contractor shall countersign this. Entire concreting work shall be done in the presence of an officer not below the rank of Assistant Engineer, the contractor shall, therefore, give notice of at least two days to the Engineer-in-charge or his representative so that the works can be checked by him or his authorised representative.

- e) The form work shall be of steel plates of steel frame, sound and seasoned timber or of any approved materials, having sufficient strength to old the concrete and withstand ramming and vibrations. If timber shuttering is used it shall be constructed in such a way that none of the concrete grout leaks away and shall be such as to leave a clean smooth surface not requiring further plastering. The surface of all forms in contact with concrete shall be clean, rigid, tight and smooth. Before a piece of work on formwork is concreted, the formwork shall be cleaned of all mortar, shavings, concrete from previous work and all other dirt. It shall then be covered with thin coat of mould oil approved by the purchaser.
- f) The joints in the form work shall be arranged in a regular pattern.
- g) Shuttering shall be provided to concrete faces where the slope exceeds 1: 2½.
- h) The stripping time of all form work shall be in accordance with recommendations contained in **IS:456**.

9.27 Painting:

- i) All the steel works shall be painted.
- ii) Members coming in direct contact with concrete shall not be painted.
- iii) Painting operation and paint schedules shall be as per IS:1477 (part-II).
- iv) All steel structural other than in chemical house shall receive one coat of red oxide zinc chromate primer conforming to IS:2239 after fabrication and one coat of the same primer after erection. Steel structures in chemical house shall receive acid / alkali resistant epoxy based primer.
- v) Priming coat shall be followed by two coats of painting by approved quality colour shade paints. Steel structure in chemical house shall be painted with acid/alkali resistant epoxy-based paint.

- vi) Before starting actual painting operation, the members to be painted shall be thoroughly cleaned of all dirt, grease, rust, scales etc.

9.28 Construction of sluice valve chamber

- i) The internal size of the chamber should be as per scope of work, CI / DI Sluice Valve, N.R. Valves and Air valves etc.
- ii) The thickness of the bed concrete should be 0.10 m in cement concrete (1:4:8) using 4cm hard black granite metal with RCC works of Cement Concrete (1:2:4).
- iii) The brick used for chamber should be K.B. Brick not below then 75 kg/cm² & the cement mortar should be in (1:6) and the wall thickness and the height of the brick work should be 0.25 m x 1.10 m chamber size 0.90x0.90 x 1.2mt
- iv) The plaster work with inside and outside should be done in the cement mortar (1:6).
- v) RCC work should be used as cement concrete (1:1½:3) using 12 mm size hard black granite chips.

Site clearance:

All foundation trenches shall be filled up with excavated materials in layers not exceeding 30cm. including watering and ramming. The site of construction shall be cleared from all rubbish and dressed to proper slope to a distance of 30M around the structure as per the direction of the Engineer-in-Charge.

9.29 Make of Mechanical Equipment: The following makes shall only be allowed unless specifically mentioned elsewhere in this DTCN.

- (a) **Sluice Valves:** DI/CI sluice valves of IVI or IVC/ FOURESS/ KIRLOSKAR/CALSONS/ equivalent with relevant IS specifications.
- (b) **Air Valves:** IVI or IVC/ FOURESS/ KIRLOSKAR/CALSONS/ equivalent
- (c) **Pump & Motor:** Kirloskar/ KSB/ Crompton Greaves/equivalent procurement from EPM Rate contract holder preferred.
- (d) **Cable:** L & T/ Finolex /Havels/BCH.
- (e) **Control panel:** BCH/ L&T/ HAVELS/ SIEMEN.
- (f) **Other Accessories:** The firm shall clearly state the make, which shall be approved by Department.

9.30 Submersible Pumps:

ISI marked Submersible Pump sets in conformity to **IS: 8034:2002** with Amdt. No. - 1, suitable for bore size 200 mm, for use in bore wells for handling clear cold water having motor to IS: 9283:1995 with amdt.1 & 2 of wet type for continuous rating operating at 3000 rpm synchronous, suitable for 415V +/- 6%, 3 Phase AC Supply & specs as under General Technical Requirements & with Head at duty point and Discharge as specified in the scope.

9.31 Cable: (Make – Finolex/ BCH / Havel's / L&T).

The required full length of copper cable, cable clamps and support clamp and other standard accessories are also to be supplied along with the submersible pump. The cable shall be of continuous length and free from any joints, having copper conductor with water proof PVC and rubber sheathing confirming to ISS:594/1977.

9.32 (Centrifugal Pumps) Coupled pump set:

Pump sets with close coupled with horizontal axially split casing with stainless steel shaft, C.I. impeller suitable for handling for cold water and coupled with suitable A.C. three phase induction squirrel cage TEFC type motor with min.1440 rpm 4 pole confirming to IS 325 & IS 12615 with base plate as per IS 1231 to function at voltage $415 \pm 6 \% V$ with insulation class F continuous duty with degree of protection IP 55 as per IS 4691.

9.33 Monoblock:

Supplying of induction (A.C.) motors TEFC type min.1440 rpm 4 pole squirrel cage type confirming to IS 325-1978 Mono block pump sets of single stage, end suction type suitable to function at voltage $220 \pm 6 \% V$ and are fitted with cast iron impellers and casings. Stainless steel bushes and brass impeller locking nuts are provided at the pump end Gunmetal gland, stainless steel studs and brass nuts are fitted to avoid rusting and to make it easy to replace asbestos packing ropes.

9.34 Class of duties:

- i) All motors should be suitable for continuous duty i.e. Class SI as specified IS: 325-1978.
- ii) Additionally, it is recommended that motors should be suitable for minimum 3 equally spaced starts per hour.
- iii) The motor should also be suitable for at least one hot restart.

9.35 Insulations:

With insulation class F continuous duty with degree of protection IP 55 as per IS 4691 Class shall permits temperature rise up-to $80^{\circ} C$.

9.36 Test Certificate :

1. The materials are to be supported with manufacturer's test certificate as per relevant ISS in respect of both pump & motor which shall be arranged at the cost of the Tenderer. The make and size of all accessories shall be indicated in the Tender if otherwise not mentioned in the specification.
2. The Tenderer shall have to furnish a drawing showing the arrangements of the unit. The drawing should be detailed enough indicating the type of technology being proposed for different unit operations. An explanatory note should also be attached to the drawing indicating the function and methodology.
3. Other technical and commercial terms and conditions if any emerged during negotiations shall be given in detail work order.
4. The Tenderers are advised not to make any uncalled-for correspondence with EIC PH Odisha on rates, specification and terms and conditions of the Tender after opening

of the tender. Such correspondence will violate the sanctity of sealed tenders and the tender is liable for rejection

9.37 Mild Steel Works:

SAIL/ TATA/ JINDAL steel M.S black pipes made out of min. 6 mm thick plates with spirally welded conforming to respective IS specification. The MS works are to be fabricated at site as per site conditions. All necessities such as DG set, welding machine, materials etc. shall be provided by the contractor. The work shall be conforming to best state of art.

Test Certificate :

The materials are to be supported with manufacturer's test certificate as per relevant ISS in respect of both pump & motor which shall be arranged at the cost of the Tenderer.

The make and size of all accessories shall be indicated in the Tender if otherwise not mentioned in the specification.

The Tenderer shall have to furnish a drawing showing the arrangements of the unit. The drawing should be detailed enough indicating the type of technology being proposed for different unit operations. An explanatory note should also be attached to the drawing indicating the function and methodology.

Other technical and commercial terms and conditions if any emerged during negotiations shall be given in detail work order.

The Tenderers are advised not to make any uncalled-for correspondence with **Executive Engineer, PH Division, BHABANIPATANA** on rates, specification and terms and conditions of the Tender after opening of the tender. Such correspondence will violate the sanctity of sealed tenders and the tender is liable for rejection.

Jurisdiction in the event of Dispute :

For the purpose of Jurisdiction in the event of dispute, if any, the decision of the EIC PH Odisha will be the final and binding on both the parties. Neither party will have right to bring a suit in regard to any matter covered in this Agreement or contract at any court of law outside the Cuttack.

Authority reserves the rights to accept, reject or cancel any or all the Tenders without assigning any reason thereof.

Site clearance

All foundation trenches shall be filled up with excavated materials in layers not exceeding 30cm including watering and ramming. The site of construction shall be cleared from all rubbish and dressed to proper slope to a distance of 30m around the structures as per the direction of the Engineer-in-charge.

Note:

1. Any item or any provision/requirement if not included in the Scope of work, but is necessary to be provided for the completion of the project and for its functional necessity, the contractor shall provide the same. No extra payment shall be admissible on this account.

2. Notwithstanding anything to the contrary contained in Paragraph 1 above, the following Specifications and Standards shall apply to the Water Supply Project, and for purposes of this Agreement, the aforesaid Specifications and Standards shall be deemed to be amended to the extent set forth below:
[Deviations from the aforesaid Specifications and Standards shall be listed out here. Such deviations shall be specified only if they are considered essential in view of project-specific requirements.]

All provisions of the technical scope of work & terms & conditions of the contract have been read by Me/Us and I/We certify that I/We clearly understand them & agree to abide by them.

Witness

Contractor

Section-10

PAYMENT BREAK-UP SCHEDULE

1.0	Where Supply & Installation is in Contractor's scope	
i.	On supply of items at site	70%
ii.	On Installation & successful commissioning duly certified by Engineer-in-charge	30%

Note: The above Payment Terms are typical for Water Supply Projects. The same shall be applicable for the items as per Scope of Work of this DTCN.

SCHEDULE – A

STRUCTURE & ORGANISATION

1. General Information

a) Name of Applicant

b) Head Office Address

e-Mail Address:

Telephone No.

Fax :

c) Regional Office Address (if any)

e-Mail Address:

Telephone No.

Fax :

d) Local Office (if any)

e-Mail Address:

Telephone No.

Fax :

e) Class of contractor / firm and year of incorporation
(attach copy of certificate of registration)

f) Name and Address of Bankers

g) Main Lines of Business

h) Establishment details:

Signature of the bidder

SCHEDULE – B
LIST OF PLANT & EQUIPMENT

Proposed to be deployed by the Applicant for use in the work

(Additional equipments if any may be added)

Sl. No.	List of plants & equipments	Owned		Leased		Remarks
		Nos.	Ownership certificate furnished / not furnished	Nos.	Lease deed along with the ownership certificate furnished / not furnished	
1	2	3	4	5	6	7
1.	Concrete Hopper Mixer 15 cum/Hr.					
2.	Plate / Skid Vibrator					
3.	Needle Vibrator					
4.	Water Tanker					
5.	Weigh batching plant					
6.	Excavator (Hydraulic)					
7.	Water Tank					
8.	Truck (10 Tonne capacity)					
9.	Generator (32KW capacity)					
10.	Compressive testing machine					
11.	Slump test apparatus					
12.	Theodolite					
13.	Lavelling instrument					
14.	Dewatering Pump set from 5 to 20 HP capacity					
15.	Steel shuttering plates (600 x 1200mm) with steel scaffoldings					
16.	Transportation trolley					

SCHEDULE –C

**INFORMATION REGARDING CURRENT LITIGATION, DEBARRING / EXPELLING
OF TENDER OF ABANDONMENT OF WORK BY TENDER**

1. (a) Is the applicant currently involved in any litigation relating to any contract works - **Yes/No**
(b) If yes, give details

- 2.(a) Has the applicant or any of its constituent partners have been debarred / expelled by any agency in India during the last 5 years - **Yes/No**
(b) If yes, give details

- 3 (a) Has the applicant or any of its constituent partners failed to perform/absconded/ rescinded on any contract work in India during the last 5 years - **Yes/No**
(b) If yes, give details

Note : If any information in this schedule is found to be incorrect or concealed pre-qualification application will be summarily rejected.

Signature of the bidder

SCHEDULE –D

DECLARATION BY THE TENDERER

6. I/We have visited the site and have fully been acquainted myself/ourself with the local situation regarding materials, labour and the factors pertaining to the work before submitting the tender.
7. I/We have carefully studied the conditions of the contract, specification and other documents of this work and I/We agree to execute the same accordingly.
8. I/We solemnly pledge that I/We shall be sincere in discharging my/our duties as responsible contractor and complete the work within the prescribed time limit. I/We shall submit detailed construction programme with target dates for various items and stages of work keeping in view the time limit and shall accordingly arrange for necessary labours, materials, and equipments etc., punctually. In case there are deviations from the construction programme, I/We shall abide by the decision of the Engineer-in-charge for revision of the programme and shall arrange for labour, materials, equipments etc
9. I/We shall follow all rules and regulations of the state in force with regard to engagement of labour for the work.
10. The documents furnished with the tender are correct to the best of my/our knowledge and belief and if any information found to be incorrect in future, the Department has the liberty to take any action as deemed fit.
11. Should this tender be accepted I/We hereby agree to abide by and fulfil all the terms and provisions of the said conditions and special conditions of the contract annexed hereto or in default thereof to forfeit and pay to the Governor of Odisha the sums of money mentioned in the said conditions and in the event of such default the transaction effected by this tender shall cease and determine.

Date:

Place:

Signature of the Tenderer
Name/Organisation
Seal

SCHEDULE – E

AFFIDAVIT

1. I/We _____ certify that all information furnished is true and agree that my / our Tender shall be rejected if I / we am / are found to have misled or made false representation in the form of any of the Schedules of Supplementary information and / or statements submitted in proof of the eligibility and qualification requirements or if I / We have a record of poor performance such as absconding from work, works not properly completed as per contract, inordinate delays in completion, financial failure and / or has / have participated in previous Tendering for the same work/s and had quoted unreasonable high Tender premium. In addition I/we shall be blacklisted and the work be taken over invoking relevant clause of the General conditions of contract and conditions of particular application.
2. I/We _____ certify that no criminal cases are pending against me/us partners at the time of submitting the Tender.
3. I/We _____ accept that my / our Tender shall be rejected if any criminal cases are pending against me/us/partners of the firm at the time of submitting the Tender.
4. I/We _____ agree that if the history of litigation, criminal cases pending against me/us/Partners furnished by me/us is false, I / We _____ will attend by the action taken by the H&U.D. Deptt., without approaching any court whatsoever for redress. However, I/We shall be given suitable opportunity to offer my/our explanation before action is taken against me/us.
5. I/We _____ certify that the following addenda issued by the Executive Engineer, PH Division, Bhabanipatana have been received by me/us and incorporated in my/ our Tender.
 1. _____ dated _____
 2. _____ dated _____
 3. _____ dated _____

(Add if the addenda issued are more than 3)
6. Further I/We _____ certify that no near relatives in the cadre of an Assistant Engineer or above are working in the PHEO of H & U.D. Deptt., in Govt. Odisha.
7. I / We _____ certify that the technical specification for which I have quoted rate is as per the requirement of the DTCN.

Dated this day of 200.. ..

Signature in the capacity of duly authorized to sign the Tender for and on behalf of

... ..

(Block Capitals)

Signature of Witness:

Name of Witness:

Address of Witness:

SCHEDULE – F

ANY OTHER INFORMATION, IF ANY

**Guidelines/ Procedure to be followed in introduction of
e-Procurement in Government of Odisha.**

**Government of Odisha
Works Department**

Office Memorandum

File No.FA-R-3/08 – 1027 /W, Dated 24.01.2009

Sub: Guidelines/ Procedure to be followed in introduction of e-Procurement in Government of Odisha.

1. This office memorandum consists of the procedural requirement of e-Procurement and shall be made part of the Detailed Tender Call Notice or Instruction to Bidder for all "Works" tenders hosted in the portal.
2. The e-Procurement portal of the Government of Odisha is "[https// tendersorissa.gov.in](https://tendersorissa.gov.in)"
3. Use of valid Digital Signature Certificate of appropriate class (class II or Class III) issued from a registered Certifying Authority (CA) as stipulated by Controller of Certifying Authorities. (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudhra etc is mandatory for all users.
4. The DSC issued to the Department users is valid for the period of two years only. All the Department users are responsible to revalidate their DSC prior to expiry.
5. For all purpose, the server time displayed in the e-procurement portal shall be the time to be followed by all the users.
6. Government after careful consideration has decided to host all tenders costing 20 lakhs or above in the e-procurement portal. This will be applicable across all Engineering Departments such as Works Department, Department of Water Resources, Rural Development and Housing & Urban Development Department. Government of Odisha also welcomes hosting of tenders by any other departments, authority, corporations, local bodies etc of the State with prior approval from Information Technology Department.
7. The e-procurement shall be operated compliant to relevant provisions of OGFR / OPWD code/ Accounts Code/ Government statutes including any amendments brought from time to time to suit to the requirement of the best national practice.
8. Registration in the e-procurement portal is without levy of any charges but Government reserves the right to levy any charges for such value added services in future.
9. Contractors not registered with Government of Odisha, can participate in the e-procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of the work as per prevalent registration norms of the State.
10. For the role management "Department", is the Administrative Department, Organisation or wing is the Chief Engineer or highest tender accepting authority or equivalent officer under the Administrative Department, Division-II is the Executive Engineer or equivalent officer, Division is the Executive Engineer or equivalent officer and sub-division is the Assistant Engineer or equivalent officer.
11. The e-procurement software assigns role for operation of the module for specific function. The terminologies used in the Portal and their respective functions in the software are as follows:
 - a. **Application Administrator:** (NIC and State Procurement Cell)
 - i. Master Management
 - ii. Nodal officer creation
 - iii. Report Generation
 - iv. Transfer and blocking of officers.
 - b. **Nodal Officer:** (At Organisation level not below the Executive Engineer or equivalent rank).

- i. Creation of Users
 - ii. Role Assignment
 - iii. Transfers and blocking of Officers
 - c. **Procurement Officer-Publisher:** (Officer having Tender inviting power at any level).
 - i. Publishing of Tender
 - ii. Publishing of Corrigendum / addendum/ cancellation of Tender
 - iii. Bid Clarification
 - iv. Uploading of pre-Bid Minutes
 - v. Report generation
 - d. **Procurement Officer – Administrator:** (Generally sub-ordinate officer to Officer inviting the tender).
 - i. Creation of Tender
 - ii. Creation of corrigendum / addendum/ cancellation of Tender
 - iii. Report generation
 - e. **Procurement officer – Opener:** (Generally sub-ordinate officer to officer inviting the Tender).
 - i. Opening of Bid
 - f. **Procurement Officer–Evaluator:** (Generally sub-ordinate officer to officer inviting the Tender).
 - i. Evaluating Bid
 - g. **Procurement Officer–Auditor:** (Procurement Officer – Publisher and/or Accounts Officer/ Finance Officer).
 - i. To take up auditing.
12. **NOTICE INVITING BIDS (NIB) OR INVITATION FOR BID (IFB):**
- a. The Notice inviting Bids (NIB) and Bid documents etc., shall be in the standard formats as applicable to conventional Bids and will be finalized/ approved by the officers competent as in the case of conventional Bids.
 - b. The officers competent to publish NIB in case of conventional Bids will host the NIB in the portal. Simultaneously, a notification should also be published in the newspapers, as per existing rules preferably, in the following format, to effect economy:-

Government of Odisha “e” Procurement Notice Bid Identification No: _____ 1. Name of the Work: _____ 2. Estimated cost Rs. _____ 3. Period of completion: _____ 4. Date & time of availability of bid document in the portal _____ 5. Last date/ time for receipt of bids in the portal: _____ 6. Name and address of the Officer inviting Bid: _____ Further details can be seen from the e-procurement portal “https://tendersorissa.gov.in”

- c. All the volumes/ documents shall be uploaded in the portal by the Procurement Officer Administrator and published by Procurement Officer Publisher (Officer inviting tender) using their DSCs in appropriate format so that the document is not tampered with.
 - d. The tender documents published by the Tender Inviting Officer (Procurement Officer Publisher) in the website <https://tendersorissa.gov.in> will appear in the “Latest Active Tenders”. The Bidders/ Guest Users can download the Bid documents only after the due date & time of sale. the publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the ‘Notice Inviting Bid’ after which the same will be removed from the list of Latest Active tenders.
13. **ISSUE OF ADDENDA/ CORRIGENDA/ CANCELLATION NOTICE:**
- a. The Procurement Officer Publisher (Officer inviting tender) shall publish any addendum / corrigendum / cancellation of tender in the website <https://tendersorissa.gov.in>, notice board and through paper publication and such notice shall form part of the bidding documents.

- b. The system shall generate a mail to those bidders who have already uploaded their tenders and those bidders if they wish, can modify their tender.

14. **PARTICIPATION IN BID**

- a. **PORTAL REGISTRATION:** The Contractor / Bidder intending to participate in the bid is required to register in the portal using his/ her active personal / official e-mail ID as his/ her Login ID and attach his/ her valid Digital signature certificate (DSC) to his/ her unique Login ID. He / she will enter relevant information as asked for about the farm/ contractor. This is a one time activity for registering in Portal.
 - i. Bidders participating through Joint Venture shall declare the authorized signatory through Memorandum of Understanding duly registered and enroll in the portal in the name and style of the Joint Venture Company. It is mandatory that the DSC issued in the name of the authorized signatory is used in the portal.
 - ii. Any third party/ company/ person under a service contract for operation of e-procurement system in the State or his/ their subsidiaries or their parent companies shall be ineligible to participate in the procurement processes that are undertaken through the e-procurement system irrespective of who operates the system.
- b. **LOGGING TO THE PORTAL:** The Contractor/ Bidder is required to type his/ her Login ID and password. The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CA stored in system database. The system checks the unique Login ID, password & DSC combination and authenticates the login process for use of portal.
- c. **DOWNLOADING OF BID:** The bidder can download the tender of his choice and save it in his system to undertake necessary preparatory work off-line and upload the completed tender at his convenience before the closing date and time of submission.
- d. **CLARIFICATION ON BID:** The bidder may ask question online in the e-procurement portal using his/ her DSC; provided the questions are raised within the period of seeking clarification as mentioned in tender call notice/ Bid. The officer inviting the bid/ procurement officer- publisher will clarify queries related to the tender.
- e. **PREPARATION OF BID:**
 - i) The bids may consist of general arrangements drawings or typical or any other drawing relevant to the work for which bid has been invited. Bidder may download these drawings and take out the print for detail study and preparation of his bid. Any other drawings and documents pertaining to the works available with the officer inviting the Bid will be open for inspection by the bidders.
 - ii) The bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including cost of Bid document, Bid security, Declaration form, price bid etc and store in the system.
- f. **PAYMENT OF EMD/ BID SECURITY AND COST OF BID DOCUMENTS:**
 - i) The Bidder shall furnish, as part of his Bid, a bid security for the amount mentioned under NIT/ Contract Data. The bidder shall scan all the written / printed pages of the bid security and upload the same in portal document format (PDF) to the system in designated piece of the technical Bid. Furnishing scanned copy of such documents is mandatory otherwise his/ her bid shall be declared as non-responsive and liable for rejection.
 - ii) The EMD or Bid Security payable along with the bid is 1% of the estimated contract value (ECV) or as mentioned in the bid document. The validity period of the EMD or Bid Security shall be as mentioned in the bid document. Any bid not accompanied by an acceptable Bid Security and not secured as indicated in the bid document shall be rejected as non-responsive. The bid security shall be retained till such time the successful bidder furnishes Initial Security Deposit (ISD) or Performance security acceptable to the officer inviting the Bid. Failure of the successful Bidder to comply with the requirements shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security. The Bid security in the form of FD/ BG shall be from a Nationalized Bank valid for a period of 45 days beyond the validity of the Bid. Bid Security in other form is acceptable if the bid documents provides for it.

- iii) The Fixed Deposit / Bank Guarantee or any other form as mentioned in detailed tender call notice in respect of Earnest Money Deposit / Bid Security and the Bank Draft in respect of cost of Bid are to be scanned and uploaded in portable document format (PDF) along with the bid.
- iv) The bidder shall provide the cost of bid and the Bid Security in a sealed cover superscripting the name of the work for which the instruments are intended and the Officer Inviting the Bid. He/ she is not required to write his/ her name on the cover. The original FD/BG/BD shall be physically produced before the Officer inviting the Bid or the concerned Division/ Division-II/ Chief Engineer before the specified period mentioned in the bid; which in no case shall be less than three days excluding the last date of submission and opening of bids (Technical cover opening in case of Double Cover System). The bidder is also allowed to submit the original FD/BG/BD by Registered Post/ Speed post or any other delivery system before the last date & time of opening of tender.
- v) The officers authorized by the Procurement Officer–Publisher (Officer Inviting Tender) shall transmit the sealed envelopes carefully to the Procurement Officer–Publisher prior to opening of the Bid. The Procurement Officer–Publisher shall provide signed receipt with date and time for having received the number of sealed envelopes.
- vi) The Procurement Officer–Publisher (Officer Inviting the Tender) or other concerned officers authorized to receive the Original Bid Security and Bid Cost on behalf of the Procurement Officer–Publisher shall not be responsible for any postal delay and/ or non–receipt of the original copy of the bid security on or before specified date and time. Non submission of bid security within the designated period shall debar the bidder from participating in the on-line bidding system and his portal registration shall be blocked. His name shall also be informed to the registering authority for cancellation of his registration as contractor.
- vii) Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidence towards his eligibility for such exemption.
- viii) Government of Odisha has been actively considering integrating e-payment gateway into the portal for payment of cost of Bid and Bid Security/ Earnest Money Deposit. The process of using e-payment gateway shall be issued separately after it is established.

15. **SUBMISSION OF BID:**

- a. The bidder shall carefully go through the tender and prepare the required documents. The Bid shall have a Technical Bid & a Financial Bid. The Technical Bid generally consist of cost of Bid documents, EMD/ Bid Security, GST, PAN/ TIN, Registration Certificate, Affidavits, Profit Loss Statement, Joint Venture Agreement. List of similar nature works, work in hand, list of machineries, and any other information required by OIT. the Financial Bid shall consist of the Bill of Quantities (BoQ) and any other price related information/ undertaking including rebates.
- b. The protected Bill of Quantities (BoQ) uploaded by the Procurement Officer – Publisher for the Bid is the authentic BoQ. Any alteration or deletion or manipulation in BoQ shall lead to cancellation of Bid.
- c. The Bidder shall up load the scanned copy/ copies of document in support of eligibility criteria and qualification information in prescribed format in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid.
- d. The Bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BoQ) published by the officer inviting tender. the bidder shall type rates in figure only in the rate column of respective item(s) with out leaving any blank cell in the rate column in case of item rate tender and type percentage excess or less upto one decimal place only in case of percentage rate tender.
- e. The bidder shall log on to the portal with his/ her DSC and move to the desired tender for uploading the documents in appropriate place one by one simultaneously checking the documents.
 - i) Bids can not be submitted after due date and time. The bids once submitted can not be viewed, retrieved or corrected. The Bidder should ensure correctness of the bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bids can not be opened even by the OIT or the Procurement Officer–Publisher/Opener before the due date and time of opening.
 - ii) Each process in the e-procurement is time stamped and the system can detect the time of log in of each user including the Bidder.

- iii) The Bidder should ensure clarity / legibility of the document uploaded by him to the portal.
 - iv) The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/ tender.
 - v) The bidder should check the system generated confirmation statement on the status of the submission.
 - vi) The Bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.
 - vii) The tender inviting officer is not responsible for any failure, malfunction, or breakdown of the electronic system used during the e-procurement process.
 - viii) The Bidder is required to up load documents related to his eligibility criteria and qualification information and Bill of Quantities duly filled in. It is not necessary for the part of the Bidder to up-load the drawings and other Bid documents (after signing) while up-loading his bid. It is assumed that the bidder has referred all the drawings and documents uploaded by the Officer inviting the Bid.
 - ix) Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all documents provided in the Bid by the Officer inviting the Bid will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.
 - x) The bidder will not be able to submit his bid after expiry of the date and time of submission of Bid (server time). The date & time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer inviting the Bid.
- f. **SIGNING OF BID:** The 'online bidder' shall digitally sign on all statements, documents, certificates, uploaded by him, owning responsibility for their correctness/ authenticity as per IT ACT 2000. If any of the information furnished by the bidder is found to be false/ fabricated / bogus, his EMD/ Bid security shall stand forfeited and the bidder is liable to be blacklisted.
16. **SECURITY OF BID SUBMISSION:**
- a. All bid uploaded by the Bidder to the portal will be encrypted.
 - b. The encrypted Bid can only be decrypted/ opened by the authorised openers on or after the due date and time.
17. **RESUBMISSION AND WITHDRAWAL OF BIDS:**
- a. Resubmission of bid by the bidders for any number of times before the final date and time of submission is allowed.
 - b. Resubmission of bid shall require uploading of all documents including price bid afresh.
 - c. If the bidder fails to submit his modified bids) within the pre-defined time of receipt, the system shall consider only the last bid submitted.
 - d. The bidder should avoid submission of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure etc.
 - e. The Bidder can withdraw his bid before the closure date and time of receipt of the bid by uploading scanned copy of a letter addressing to the Procurement Officer–Publisher (Officer Inviting Tender) citing reasons for withdrawal. The system shall not allow any withdrawal after expiry of the closure time of the bid.
18. **OPENING OF THE BID:**
- a. Bid opening date and time is specified during tender creation or can be extended through corrigendum. Bids can not be opened before the specified date & time.
 - b. All bid openers have to log on to the portal to decrypt the bid submitted by the bidders.
 - c. The bidders & guest users can view the summary of opening of bids from any system. Contractors are not required to be present during the bid opening at the opening location if they so desire.

- d. In the event of the specified date of bid opening being declared a holiday for the officer inviting the Bid, the bids will be opened at the appointed time on the next working day.
 - e. In case bids are invited for more than one package, the order for opening of the "Bid" shall be that in which they appear in the "Invitation for Bid".
 - f. During bid opening, the covers containing original financial instruments towards cost of bid and Bid Security in the form specified in the DTCN/ ITB valid for the period stated in the Bid, received after last date of receipt of bid and before opening of the bids shall be opened and declared. The Procurement Officer–Opener shall continue opening of other documents if he is satisfied about the appropriateness of the cost of Bid and the Bid security.
 - g. Combined bid security for more than one work is not acceptable.
 - h. The electronically submitted bids may be permitted to be opened by the predefined Bid opening officer from their new location if they are transferred after the issue of Notice Inviting Bid and before bid opening. Further action on bid documents shall be taken by the new incumbent of the post.
19. **EVALUATION OF BIDS:**
- a. All the opened bids shall be down loaded and printed for taking up evaluation. The Procurement Officer–Openers shall sign on each page of the documents downloaded and furnish a certificate that the documents as available in the portal for the tender have been down loaded.
 - b. The Procurement Officer–Evaluators shall take up evaluation of bids with respect to the qualification information and other information furnished subject to confirmation of the bid security by the issuing institutions.
 - c. After receipt of confirmation of the bid security, the bidder may be asked in writing to clarify on the documents provided in the Technical Bid, if necessary, with respect to any doubts or illegible documents. The Officer Inviting Tender may ask for any other document of historical nature during Technical evaluation of the tender. Provided in all such cases, furnishing of any document in no way alters the Bidder's price bid. Non submission of legible documents may render the bid non-responsive.
 - d. The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.
 - e. Technical evaluation of all bids shall be carried out as per information furnished by Bidders. But evaluation of bids does not exonerate bidders from checking their original documents at later date. If the bidder is found to have misled the evaluation through wrong information, action as per relevant clause of DTCN / ITB shall be taken against the bidder/ contractor.
 - f. The procurement Officer- Evaluators; will evaluate bids and finalize list of responsive bidders.
 - g. The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer – Openers shall log on to the system in sequence and open the financial bids.
 - i. The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.
 - ii. At the time of opening of "Financial Bid", bidders whose technical bids were found responsive will be opened.
 - a. The responsive bidders name, bid prices, item wise rates, total amount of each item in case of item rate tender and percentage above or less in case of percentage rate tenders will be announced.
 - b. Procurement Officer-Openers shall sign on each page of the downloaded BoQ and the comparative statement and furnish a certificate to that respect.
 - c. Bidder can witness principal activities and view the documents/ summary reports for that particular work by logging on to the portal with his DSC from any where.

20. **NEGOTIATION OF BIDS:**

- a. For examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdown of unit rates.

21. **NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:**

- a. The Employer/ Engineer-in-charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This Letter of Acceptance will state the sum that the Engineer-in-charge will pay the contractor in consideration of the execution & completion of the Works by the Contractor as prescribed by the contract & the amount of performance security and additional performance security required to be furnished. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
- b. The Contractor after furnishing the required acceptable performance security and additional performance security, "Letter to Proceed" or "Work Order" shall be issued by the Engineer-in-Charge with copy thereof to the Procurement Officer–Publisher. The Procurement Officer–Publisher shall up load the summary and declare the process as complete.

Sd/-

24.01.2009EIC-CUM-SECRETARY TO GOVERNMENT

**Online Receipt of Tender Paper Cost & Earnest Money Deposit
through e-Procurement Portal as per
Works Department Letter No.17276/W Dt.06.12.2017**

**Government of Odisha
Works Department**

Office Memorandum

File No.07556900012016–17254/W Dt.05.12.2017

Sub: Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

1. The State Government have formulated rules and procedures for Electronic receipt, accounting and reporting of the receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids through the e-procurement portal of Government of Odisha i.e. "<https://tendersodisha.gov.in>".
2. Electronic receipt of cost of tender paper has been successfully tested through SBI payment gateway. Now it has been decided to introduce electronic receipt of **Cost of Tender Paper and Earnest Money Deposit on submission of bids** through payment gateway of designated banks such as **SBI/ICICI Bank/HDFC Bank** for all Government Departments, State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc. in phases (ANNEXURE-I). The process outline as well as accounting and reporting structure are indicated below :
 - a) It will be carried out through a single banking transaction by the bidder for multiple payments like **Cost of Tender Paper and Earnest Money Deposit on submission of bids**.
 - b) Various payment modes like **Internet banking/ NEFT/RTGS** of Designated Banks and their Aggregator Banks as well can be accessed by the intending bidders.
 - c) Reporting and accounting of the **e-receipts** will be made from a single source.
 - d) Credit of receipts into the Government accounts and to the designated Bank account of the participating entities indicated in Para 2 above would be faster.
3. Only those bidders who successfully remit their **Cost of Tender Paper and Earnest Money Deposit on submission of bids would be eligible to** participate in the tender/bid process. The bidders with pending or failure payment status shall not be able to submit their bid. Tender inviting authority, State Procurement Cell, NIC, the designated Banks shall not be held responsible for such pendency or failure.
4. **Banking arrangement:**
 - a) Designated Banks (**SBI/ICICI Bank/HDFC Bank**) payment gateway are being integrated with e-Procurement portal of Government of Odisha (<https://tendersodisha.gov.in>).

- b) The Designated Banks participating in **Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids** will nominate a **Focal Point Branch** called e-FPB, who is authorized to collect and collate all e-Receipts. Each such branch will act as the Receiving branch and Focal Point Branch notwithstanding the fact that the bidder might have debited his account in any of the bank's branches while making payment.
- 5. Procedures of bid submission using electronic payment of tender paper cost and EMD by bidder:**
- a) **Log on to e-Procurement Portal:** The bidders have to log onto **the** Odisha e-Procurement portal (<https://tendersodisha.gov.in>) using his/her digital signature certificate and then search and then select the required active tender from the "Search Active Tender" option. Now, submit button can be clicked against the selected tender so that it comes to the "My Tenders" section.
- b) **Uploading of Prequalification/Technical/Financial bid:** The bidders have to upload the required Prequalification /Technical/Financial bid, as mentioned in the bidding document and in line with Works Department office memorandum no.7885, dt.23.07.2013.
- c) **Electronic payment of tender paper cost and EMD:** Then the bidders have to select and submit the bank name as available in the payment options
- i. A bidder shall make electronic payment using his/her **internet banking** enabled account with designated Banks or their aggregator banks.
 - ii. A bidder having account in other Banks can make payment using **NEFT/RTGS** facility of designated Banks.
 - Online NEFT/RTGS payment using internet banking of the bank in which the bidder holds his account, by adding the account number as mentioned in the challan as an interbank beneficiary.
- d) **Bid submission:** Only after receipt of intimation at the e-Procurement portal regarding successful transaction by bidder the system will activate the 'Freeze Bid Submission' button to conclude the bid submission process.
- e) **System generated acknowledgement receipt for successful bid submission:** System will generate an acknowledgement receipt for successful bid submission. The bidder should make a note of '**Bid ID**' generated in the acknowledgement receipt for tracking their bid status.
- 6. Settlement of Cost of Tender Paper;**
- a) **Cost of Tender Paper:** In respect of Government receipts on account of **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise-head-wise challans separately

for **Cost of Tender Paper** and instruct the designated Banks to remit the money to the State Government account under different heads. In respect of the cost of tender paper received through the e-procurement portal, the remittance to the Cyber Treasury account will be made to the Head of Account 0075-Misc, General Services-800-Other Receipts -0097-Misc. Receipts-02237-Cost of Tender Paper.

- b) For the time being, the State Procurement Cell (SPC) will use over the counter payment facility of the Odisha Treasury portal. Thereafter, remittance through NEFT & RTGS will be facilitated through the Odisha Treasury portal.
- c) Similarly, in case of State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc., **Cost of Tender Paper**, the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number**. The State Procurement Cell shall generate Bank-wise list of challans and instruct the designated Banks to remit the money through the Odisha Treasury portal. The cost of tender papers will be credited to the registered Bank account of the concerned State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc.
- d) Bank will refund (in case the Tender Inviting Authority (TIA) issues such instructions) the tender fee, EMD to the bidder, in case the tender is cancelled before opening of Bid as per direction received from TIA through e-procurement system.
- e) Back-end Transaction Matrix of Electronic receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids is enclosed in the Annexure.

7. Settlement of Earnest Money Deposit on submission of bids:

- a) The Bank will remit the **Earnest Money Deposit on submission/cancellation of bids** to respective bidders accounts as per direction received from TIA through e-procurement system.

8. Forfeiture of EMD :

Forfeiture of **Earnest Money Deposit on submission of bid** of defaulting bidder is occasioned for various reasons.

- a) In case the **Earnest Money Deposit on submission of bid** is forfeited, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority.
- b) The Tender inviting authorities of the Government Departments will deposit the forfeited **Earnest Money Deposit on submission of bid**, in the State Government Treasury under the appropriate head (8782-Cash Remittances and Adjustments between the officers rendering accounts to the same Accounts Officer-102-P.W.Remittances-1683-Remittances-91028-Remittances into Treasury) after taking the amount as a revenue receipt in their Cash Book under the head 0075-Misc. General Services-00-101 -Unclaimed Deposits-

0097-Misc, Receipts-02080-Misc. Deposits and submit the detail account to DAG (Puri) as a deposit of the Division.

- c) By clicking submit button, system will initiate the forfeiture of EMD. System will not allow the evaluator to edit the initiation after clicking the submit button. Forfeiture option can be carried out in phased manner like one bidder at a time.

9. Role of the Banks:

- a) Make necessary provision / customizations at their end to enable the provision for online payments / refunds as per this document.
- b) Provide necessary real-time message to bidders regarding successful or unsuccessful transactions during online payment processes and redirect them to e-Procurement website with necessary transaction reference details enabling them to submit their bids.
- c) The bank shall ensure transfer of funds from the pooling account to the Government Head/current account of PSUs/ULBs within the next bank working day as per the directions generated from e-Procurement portal.
- d) Bank should provide timely reports and reference details to NIC enabling them to carry out their role as stated below.
- e) Refund of amount to bidders as per the XML file provided by e-Procurement system on the next bank working day from the date of generation of the XML file and also provide a confirmation to NIC on the same.

10. Role of State Procurement Cell:

- a) Communicate requirements of Government departments/ State PSUs/ Autonomous Bodies/ ULBs online payment requirements to National Informatics Centre / the authorised Banks for mapping/ customization.
- b) In every working day, the State Procurement Cell shall generate MIS from the e-Procurement portal to ascertain the tender paper cost received in the e-Tendering process separately bank-wise for the Government Department and the PSUs/ULBs. The SPC shall generate bank-wise separate online challans from the Odisha Treasury portal and make the remittance through over the counter facility or NEFT/RTGS (as and when this functionality is available in Treasury portal) and issue instruction to the bank for remittance of the receipt to the State Government account.
- c) The State Procurement Cell shall be responsible for providing challan details and MIS in respect of the remittance towards tender paper cost to the Tender inviting authorities for their record.
- d) State Procurement Cell shall monitor the progress of e-Tendering by different Government departments / State PSUs/ Autonomous Bodies / ULBs through an MIS. State Procurement Cell shall monitor and send monthly progress reports to the Government.
- e) The e-Procurement system will generate a consolidated refund & settlement XML file as an end of the day activity.

- f) e-procurement system will provide a web service for payment gateway (PG) provider to pull the encrypted refund and settlement details in XML file against a day.
- g) Similarly, payment gateway (PG) provider will provide a web service to pull the refund and settlement status against a day
- h) e-procurement system will update the status accordingly for reconciliation report.

11. Role of National Informatics Centre :

- a) Customize e-Procurement software and web-pages of Government of Odisha (<https://tendersodisha.gov.in>) to enable the provision for electronic payment.
- b) The NIC, Odisha will modify / rectify the errors in electronic data relating to the Chart of Account.
- c) NIC will provide an interface to organisations to download the electronic receipt data.
- d) Enable automatic generation of daily XML files from e-Procurement system and ensure delivery of the same to the authorised Banks for enabling automatic refund/settlement of funds.
- e) NIC shall enable the e-Procurement portal to generate MIS as required for the State Procurement Cell in order to make remittance of the tender paper cost to the State Government account using the Odisha Treasury portal.

12. Role of Cyber Treasury :

- a) The cost of the tender paper deposited by the SPC using the Odisha Treasury Portal which will be accounted for by the Cyber Treasury and it shall submit the accounts to A.G (O) as per the established process.
- b) The Cyber Treasury will provide MIS as required to the SPC for the purpose of accounting and reconciliation of the electronic remittances made to the State Government account.

13. Redressal of Public grievances:

- a) The State Procurement Cell, Odisha, National Informatics Centre, Odisha and the e-FPB will have an effective procedure for dealing with, public complaint for e-Receipt related matters. In case, any mistake is detected by any of the stakeholders in reporting of receipt of tender paper cost and EMD, either suo moto or on being brought to its notice, the State Procurement Cell, Odisha, National Informatics Centre, Odisha unit, Cyber Treasury and the bank will promptly take steps for rectification. The e-Focal Point Branch of the participating Banks, National Informatics Centre, Odisha and the State Procurement Cell, Odisha will notify the contact number and address of the Help Desk for resolution of any dispute regarding e-Receipt.

14. Applicability and modification of existing rules / orders:

The modalities prescribed in this Office Memorandum for downloading of tender paper, submission and rejection of bid, acceptance of Bids as well as refund and forfeiture of earnest deposit will be applicable for electronic submission of bids through e-procurement portal. Existing provisions regulating cost of tender paper,

earnest money deposit in OPWD Code and OGFR would stand modified to the extent prescribed.

- 15.** These arrangements would be made effective after signing of MoU between the designated Banks and the State Procurement Cell, firming up of Banking arrangements and technical integration between designated Bank and e-Procurement Portal.
1. This shall take effect from the date of issue of this Office Memorandum.
2. Accordingly, relevant existing codal/ contractual provision exist vide Office Memorandum No.6785/W Dt.09.05.2017 of Works Department stands modified to the above extent.
3. This has been concurred in by the Finance Department vide their UOR No.-39-WF-I Dt.09.11.2017.

Sd/05.12.2017

E.I.C-cum-Secretary to Govt.

[For any Technical related queries please call at Help desk numbers of State Procurement Cell (SPC), Govt. of Odisha – 1800 3456 765, (0674) 2530998 / 2530996]

ANNXURE-I of Appendix - II

Back-end Transaction Matrix of Electronic receipt and remittance of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

	Cost of Tender Paper on submission of bids	Earnest Money Deposit on submission of bids
Government Departments	I. The payment towards the cost of Tender Paper, in case Government Departments, shall be collected in separate Pooling accounts opened in Focal Point Branch called e-FPB of respective designated banks [as stated in Para 2] at BHABANIPATANA on T+1_day. II. With reference to the Notice Inviting Tender/ Bid Identification Number, the amount so realized is to be remitted to Government Account under the Head Of Account 0075-Misc. General Services-800-Other Receipts-0097-Misc. Receipts-02237-Cost of Tender Paper through Odisha Treasury Portal after opening of the bid.	I. In case of tenders of Government Departments, amount towards Earnest Money Deposit on submission of bids shall be collected in a pooling account opened for this purpose at Focal Point Branch called e-FPB of respective designated banks at BHABANIPATANA and the banks will remit the amount to respective bidder's account within two working days on receipt of instruction from TIA through refund and settlement of e-procurement system. II. In case of forfeiture of Earnest Money Deposit on submission of bids, the e- Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.
State PSUs Statutory Corporations, Autonomous Bodies and Local Bodies.	I. In case of State PSUs, Statutory corporations, Autonomous Bodies and Local Bodies etc. the amount towards Cost of Tender Paper, on submission of bids shall be collected in separated pooling accounts opened in Focal Point Branch called e-FPB of respective designated Banks at BHABANIPATANA on T+1 days. II. The Paper cost will be transferred to the respective current accounts of concerned State PSUs, Statutory Corporation, Autonomous Bodies and Local Bodies etc. after opening of bid.	I. Amount towards EMD on submission of bids shall be collected in a separate pooling account of Focal Point Branch called e-FPB of respective designated banks at BHABANIPATANA and the banks will remit the amount to respective bidder's account on receipt of instruction from TIA through refund and settlement of e-procurement system within two working days from receipt of such instruction. II. In case of forfeiture of Earnest Money deposit on submission of bids, the e- Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.