



WATCO

**OFFICE OF THE MANAGING DIRECTOR,
GROUND FLOOR, UNNATI BHAWAN, SATYANAGAR,
BHUBANESWAR, ODISHA – 751007.**

Telefax: - +91-674-2571444

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**DETAILED TENDER CALL NOTICE (DTCN)
FOR
“CONSTRUCTION OF ESR AND LAYING OF DISTRIBUTION
SYSTEM INCLUDING AUTOMATION WORK TO DIFFERENT
ZONES OF WARD NO.4 FOR 24X7 WATER SUPPLY TO
NAHARKANTA TO PHULNAKHARA AREA BMC INCLUDING O&M
PERIOD OF 5 YEARS”.**

ESTIMATED COST: Rs.6126.30 Lakh

Bid Identification No. WATCO (W)-11(02)/2026-27 Dtd.13.07.2026

**COST OF TENDER PAPER: 10,000/- + GST @ 18%
(Rupees Ten Thousand plus eighteen percent GST) only**

JULY-2026

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SECTION-1



WATER CORPORATION OF ODISHA
OFFICE OF THE MANAGING DIRECTOR,
GROUND FLOOR, UNNATI BHAWAN, SATYANAGAR,
BHUBANESWAR, ODISHA – 751007.

Telefax: - +91-674-2571444

E-mail – watcoodisha@gmail.com

NOTICE INVITING TENDER (NIT) **NATIONAL COMPETITIVE BIDDING THROUGH e-Procurement**

Bid Identification No- WATCO (W)-11(02)/2026-27 Dtd.13.07.2026

The **Managing Director, WATCO, Bhubaneswar** 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 **Two Bid System** (Part-I: General & Technical Bid and Part-II: Price Bid) from **"The Construction Firms, Companies having "Super" Class Contractors license/ "Super" Class Contractor"** registered with the Odisha State Government and Contractors of equivalent grade/class registered with Central Government/ any other State Government/ MES/ Railways having experience and expertise in Design, Construction, Testing & Commissioning of Similar Type of Works and fulfilling minimum eligibility criteria as stated hereunder and other detailed qualifying requirements given in the DTCN to be eventually drawn up in the **Standard P1 Contract Form of Odisha PWD**. The bid should be submitted on-line in the website www.tendersodisha.gov.in by eligible class of contractors. The bidders should have the necessary Portal Enrolment (with his own Digital Signature Certificate). Contractors registered elsewhere but not registered with Government of Odisha can also 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 work / signing of the Agreement as per prevalent registration norms of the State.

Sl. No.	Name of the work	Value of Work (Rs. Lakh)	Bid Security (EMD) (Rs. Lakh) (Online/BG)	Class of Contractor	Period of Completion	Cost of Bid Document + GST @ 18% (In Rs.) (Online)
1	2	3	4	5	6	7
1.	"Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years".	6126.30	61.27	The Construction Firms, Companies having "Super" Class Contractors license/ "Super" Class Contractor	24 (Twenty-Four) Months	11800/-

2. Mode of Submission of tender: Tender should be submitted online in **www.tendersodisha.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 original documents i.e., Affidavits, Undertakings & Certificates as per the Schedules and Annexure of DTCN that have been uploaded by the bidder in the e-tender website should be submitted for verification during evaluation. The Technical Bid will be opened on **Dt.12.08.2026 at 12:30 PM.**

5. **Critical Dates:-**

SN	Description	Critical Dates
(i)	Period of availability of tenders on-line	From 5:00 PM of Dt.18.07.2026 to 5:00 PM of Dt. 10.08.2026
(ii)	Last date & time of seeking clarification	5:00 PM of Dt. 24.07.2026
(iii)	Last date & time of Submission of BG hardcopy	5:00 PM of Dt.11.08.2026
(iv)	Last date & time of bidding on-line	5:00 PM of Dt. 10.08.2026
(v)	Date & time of opening of Technical Bid	12:30 PM of Dt. 12.08.2026

6. **Minimum Eligibility Criteria:-**

- i) The Construction Firms, Companies having **"Super" Class Contractors license/ "Super" Class Contractor successfully Completed & Commissioned Works of similar nature valuing not less than 30% (Rs.1837.90 Lakhs) of the estimated cost put to tender** in any one year during the last 5 (five) years in any Govt. Sector / Public Sector Undertakings. **The bidder should have completed at least one work involving construction, testing, and commissioning of an Elevated Service Reservoir (ESR) with a minimum capacity of 2 Lakh Liters and a minimum staging height of 20 meters in the last 5 financial years, irrespective of the financial turnover of the similar nature of work.** The firm shall have to submit the performance certificate of the works constructed by them for satisfactory performance from appropriate authority i.e., not below the rank of Executive Engineer /Superintending Engineer /equivalent. Weightage @ 10% per year shall be given on the value of the completed work in the preceding years. ***For this purpose, a project shall be considered to be completed, if more than 90% of the value of work has been completed and such completed value of work is equal to or more than 30% of the estimated project cost.***
- ii) The Construction Firms, Companies having **"Super" Class Contractors license/ "Super" Class Contractors** should have annual financial turnover of not less than **Rs.2450.52 Lakh (40% of the estimated cost put to tender)** in any one year during last 5 (five) years and the turnover need to be certified by Chartered Accountant with UIDN number & Date. Weightage @ 10% per year shall be given on the annual turnover of the preceding years.

7. Escalation Factor (On Compound basis):

Following enhancement/compounding factors will be used for the costs of works executed and the financial figures to a common base value.

<u>Year before</u>	<u>Multiplying factor</u>
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One	1.10
Two	1.21
Three	1.33
Four	1.46
Five	1.61

8. To arrive at the value of completed works, value of multiple contracts executed in a financial year shall be considered. For this purpose, the completion certificates given by the authorities for any one financial year shall be considered. In case value of works executed in any one financial year is not available in the certificates, the same shall be calculated on a pro-rata basis, considering that the total completed value and the time schedule in days.
9. The Bidder should have not been black listed by any Govt./ Govt. Undertaking on the bid submission date. **Self-declaration certificate** by Bidder in the form of Affidavit is to be submitted.
10. All Bidders/Contractors are bound to register themselves in CDMS Portal developed by State Procurement Cell, Odisha, Bhubaneswar. However, the successful out State Bidders those who are not registered in CDMS Portal, Odisha, are bound to register themselves before signing of agreement.
11. The bid for the work shall remain valid for a period of **120 (One Hundred Twenty) days from the date of opening of Price Bid**. 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 earnest money shall stand forfeited.
12. Bids from Consortium/ Unincorporated Joint Venture is not acceptable.
13. Other details can be seen in the bidding documents, which is available in website www.tendersorissa.gov.in.
14. All amendments, time extension etc. will be uploaded in the website only. Bidders should regularly visit the above website to keep themselves updated.
15. Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.
16. **Name and Address of the Officer Inviting Bids**
OFFICE OF THE MANAGING DIRECTOR, WATCO
Ground Floor, Unnati Bhawan, Satya Nagar,
Bhubaneswar-751007, Odisha, India
Telefax: - +91-674-2571444
E-mail – watcoodisha@gmail.com

Sd/-
Managing Director
WATCO, Bhubaneswar.

CHECK LIST TO BE FILLED UP BY THE BIDDER

Name of the Work: "Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years".

Sl. No	Particulars	Reference to Clause no.	Whether furnished		Reference to Page no.
			Yes	No	
01.	Cost of Bid Document + GST @ 18% = Rs.11,800/- (Online remittance)	As per NIT			
02.	Bid Security (EMD) for Rs.61.27 lakh (Online remittance)/BG in the form of Schedule-M	Clause 23.1, Section 2(B) of DTCN			
03.	Copy of valid Contractor's Registration Certificate	Clause (a)v., Section 2(A) of DTCN			
04.	Copy of valid GST Registration Certificate / GSTIN	Clause (a)iii., Section 2(A) of DTCN			
05.	Copy of PAN Card	Clause (a)iv., Section 2(A) of DTCN			
06.	No Relationship Certificate	Clause (a)vii., Section 2(A) of DTCN			
07.	Self-declaration certificate by the bidder in the form of Affidavit for No Criminal Case pending at the time of Bidding	Clause 6, Section 2(B) of DTCN			
08.	Self-declaration certificate by the bidder in the form of Affidavit- declaring that in last 3 financial years they have not applied for/ are undergoing Corporate Debt Restructuring (CDR) /Strategic Debt Restructuring (SDR) or facing recovery proceedings from Financial Institutions or those are facing Sickness and under consideration of Board for Industrial and Financial Reconstruction (BIFR)	Clause 8.4, Section -2(B) of DTCN			
09.	Self-declaration certificate by the bidder in the form of Affidavit- for not being blacklisted by any Govt./ Govt. Undertaking	As per NIT			
10.	Letter for Submission of Tender	Section -2(D) of DTCN			

11.	Tender Declaration	Section -2(E) of DTCN			
12.	Information Regarding Tenderer	Section -3 of DTCN			
13.	Declaration by the tenderer	Section -4 of DTCN			
14.	Work schedule in the form of Bar Chart	Clause 7.14, Section-7 of DTCN			
15.	Structure & Organization	Schedule-A			
16.	Financial Statement	Schedule-B			
17.	List of Tools, Plants & Equipments	Schedule-C			
18.	Works Experience -	Schedule-D			
(a)	List of similar works executed during last 5 years	Schedule-D (Item-3)			
(b)	Works in hand-Approximate value of existing commitment and ongoing works.	Schedule-D (Item-4)			
(c)	Bid Capacity Calculation Sheet	Schedule-D (Item-5)			
19.	Information regarding current litigation, debarring / expelling of the tender or abandonment of the work by the tenderer	Schedule-E			
20.	Electrical License/ MoU with Electrical Contractor for execution of electrical works	Schedule-F			
21.	Affidavit / Declaration	Schedule-G			
22.	Solvency Certificate from a Schedule Bank	Schedule-H			
23.	Bank Guarantee towards Bid Security (If allowed)	Schedule-M			

CONTRACT DATA

A. GENERAL INFORMATIONS

SN	Item	Details
1	Bid Identification No.	WATCO (W)-11(02)/2026-27 Dtd.13.07.2026
2	Name of the Work	"Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years".
3	Officer inviting tender	MANAGING DIRECTOR, WATCO, Bhubaneswar
4	Accepting Authority	Managing Director /Director (Project) WATCO / Vice Chairman, WATCO/ Board of Directors, WATCO
5	Estimated Cost	Rs.6126.30 Lakh

B. BID INFORMATION

6	Intended completion period/Time period assigned for Completion	24 (Twenty-Four) Calendar Months		
7	Last Date & time of submission of Bid	5:00 PM of Dt.10.08.2026		
8	Cost of Bid Document (To be Remitted Online)	Rs.10000.00 + 18% GST		
9	Bid Security (EMD) (To be Remitted Online/ BG)	Rs.61.27 Lakh		
10	Additional Performance Security	In the shape as mentioned at Clause 23 of Section-2(B)		
i)	Amount	Sl No.	Incremental Basic of Additional Performance Security.	Additional Performance Security to be deposited by the Successful bidder
		i	Below 0% but not below 10% of the Project Cost put to bid.	No Additional Performance guarantee/ Security percentage is required.
		ii	Below 10% but not below 20% of the Project Cost put to bid.	0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the Additional Bid Performance Guarantee being 0.1% and the Additional Bid Performance Guarantee percentage shall be

			applied on the bid price.
		iii	Bid price is 20% or more below of the project cost put to bid. 0.2% for every percentage of bid price below 20% of the project cost put to bid in addition to 1% of the bid price and the Additional Bid Performance Guarantee percentage shall be applied on the bid price.
		As per Govt. of Odisha, Works Department OM No.173/W, Bhubaneswar Dt.03.01.2026 on Amendment of Codal & Contractual Provisions.	
ii)	Pledged in favour of	General Manager, WATCO Division-I, Bhubaneswar.	
iii)	Payable at	Bhubaneswar	
iv)	Type of Instrument	As specified in the Bid document	
11	The Financial years of last five years	2021-22 to 2025-26	
12	Bid validity period	120 days from the date of opening of Price Bid	
13	Currency of Contract	Indian Rupees	
14	Language of Contract	English	
C. Agreement Information			
15	Execution of agreement	The successful bidder is to execute the agreement with General Manager, WATCO Division-I, Bhubaneswar representing Managing Director, WATCO, Bhubaneswar.	

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.tendersodisha.gov.in.

- i. **Remittance of Cost of Bid Document (Online).**
- ii. **Remittance/submission of Bid Security (EMD) Online/ in shape of BG**
- iii. **GST Registration Certificate / GSTIN.**
- iv. PAN Card.
- v. Contractor's Registration Certificate.
- vi. Affidavit regarding correctness of certificates.
- vii. Affidavit regarding no relation certificate.
- viii. Work experience certificate from the authority not below the rank of Executive Engineer/ Superintending Engineer.
- ix. Annual Turnover Certificate from Chartered Accountant for last five financial years with break-up of **Construction Works & Total Works** for each financial year.
- x. Section-2(D), Section-2E, Section-3 & Section-4
- xi. Any other relevant required document, if any. (Refer Checklist)

(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. |
| Schedule B - | Financial statement |
| Schedule C - | List of tools, plant & equipment proposed to be deployed in the work. |
| Schedule D - | Work experience |
| Schedule E - | Information regarding current litigation/debarment etc. |
| Schedule F - | Information on Electrical License/Collaboration. |
| Schedule G - | Declaration. |
| Schedule H - | Solvency Certification from Bank |
| Schedule I - | Any other information. |
| Schedule J - | Format for Seeking Clarification |
| Schedule K - | Form of Bank Guarantee for APS |
| Schedule L - | Project Completion |
| Schedule M - | Form of Bank Guarantee for Bid Security |

(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, cannot participate in the tender.
- (e) Cost of Bid Document will be remitted on **online mode** by the Bidder, failing which the bidder will be disqualified
- (f) Cost of Bid security (EMD) will be remitted on **online mode/ through BG** by the Bidder, failing which the bidder will be disqualified

SECTION- 2(B)
INSTRUCTIONS TO BIDDERS
A. GENERAL

1. **Definitions:**

- (a) "Employer" means the **WATCO, BHUBANESWAR** a Government of Odisha owned company represented by the **MANAGING DIRECTOR** or his authorized representative with whom the selected Bidder 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 the Part-I of DTCN) means the document which provides all information needed to prepare their proposals.
- (h) "NIT" (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 (Tender Document Part I – General & Technical Bid) and the Financial Proposal (Tender Document Part II – Price Bid).
- (k) "DTCN" means the Detailed Tender Call Notice prepared by the Employer for the selection of contractor which includes Part-I & II.
- (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 Bid**. 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 **Ward No.04 Naharkanta to Phulnakhara area** of **Khurda** District in the **State of Odisha**.

4. **Source of Funding:**

The work will be funded by **State Government**

5. **Eligibility:**

5.1. A Bidder shall be deemed to have the nationality of India.

5.2. A Bidder shall be **Construction Firms, Companies having "Super" Class Contractors license/ "Super" Class Contractor** registered with the Odisha State Government and Contractors of equivalent grade/class registered with Central Government/ any other State Government/ MES/ Railways.

- 5.3. Registered Contractor of **"Super" Class Contractor** of Odisha State PWD or equivalent class of CPWD / Railway / MES / Central or other State Govt. Proof of registration is to be furnished along with the tender.
6. **History of Litigation and Criminal Record:**
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.
7. The Contractor has to furnish a declaration that no near relatives are working in the cadre of an Assistant Engineer/ Assistant General Manager 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 **Managing Director, WATCO, Bhubaneswar** 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 at **Ward No.04 Naharkanta to Phulnakhara area** in the district of **Khurda** 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 General & Technical Bid and the Price Bid includes the following together with all Addenda thereto, which may be issued in accordance with **Clause 2(B)13 and Clause 2(B)14**.

PART- I: GENERAL & TECHNICAL BID

Section	Description
DTCN Part – I: General & Technical- Bid	
Section-1	Notice Inviting Tender (NIT)
	Check List to be Filled up by the Bidder
	Contract Data
Section-2(A)	Details of the Documents to be Furnished for Online Bidding
Section-2(B)	Instructions to Bidders
Section-2(C)	Data Sheet
Section-2(D)	Letter for Submission of Tender
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
Section-10	Payment Break-up Schedule
Schedule-A to M	Formats for furnishing Information by the Bidder
Appendix - I	Executive Instruction regarding calling for and acceptance of tenders in e-Procurement in Govt. of Odisha
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DTCN Part – II: Price Bid/BoQ	

- 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 format at Schedule-J**

14. **Amendment of Tender Documents:**

14.1. At any time prior to the dead line for submission of tenders, **Managing Director, WATCO, Bhubaneswar** may for any reason, whether at its own initiative, 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, **Managing Director, WATCO, Bhubaneswar** at his discretion, may extend the dead line for the submission of tenders, if necessary.

C. PREPARATION OF TENDER DOCUMENT

15. **Language of the Documents:**

All documents relating to the Tender shall be in the English language.

16. **Documents Comprising the Tender:**

(a) General & Technical Bid (Part-I of Tender Document)

(b) Price Bid (Part-II of Tender Document)

(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 / work experience with specification in construction of water supply scheme / tools, plant, 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)19.12) 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 names of the professional staff to be deployed in the work with their qualification / experience in **Scheduled- 'A'**.
- 19.2. A description of the approach, methodology and work plan for performing the assignment.
- 19.3. The list of the tools, plant, machinery & equipment to be deployed in the work as per **Schedule- 'C'**.
- 19.4. Work completion certificate from an Engineer not below that the rank of General Manager/General Manager equivalent in support of the work executed as furnished in **Scheduled- 'D'**.
- 19.5. Bio-data of the professional staff furnished need be signed by the staff themselves or by their authorized representatives.
- 19.6. Annual financial turn over of the last **5 (Five)** years shall be Audited accounts of the firm/Contractor and certified by Chartered accountant and to be indicated in **Schedule- 'B'**.
- 19.7. Solvency Certificate from a Scheduled Bank (**Schedule- 'H'**).
- 19.8. **GST Registration Certificate / GSTIN.**
- 19.9. Copy of PAN Card.
- 19.10. Copy of Contractor's Registration Certificate.
- 19.11. General Power of Attorney if required in favour of the authorised signatory.
- 19.12. Other information as required.
- 19.13 The Technical Bid shall not include any financial information related to the Price Bid.
Technical Bid containing financial information related to the Price Bid shall be declared non responsive.

20. **The Financial Proposal:**

- 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 in the 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 price 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 **Managing Director, WATCO, Bhubaneswar**.
- 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. **ISD / SD / Additional Perform Security:**

"Security for the due fulfilment of a contract should invariably be taken. The security may be taken in shape of N.S.C./ Post Office Savings Bank Account/ Post Office Time Deposit Account/ Kisan Vikas Patra/ Bank Guarantee (**Schedule-K**) in favour of the **General Manager, WATCO Division-I, Bhubaneswar** from any Nationalized Scheduled Bank in India counter guaranteed by its local Branch at **Bhubaneswar**

As per clause No.4(Exclusion) Odisha procurement preference policy for Micro Small Enterprises of Odisha circulated vide Notification No.566/MSME Dated.24.01.2024 the OSME policy is not be applicable to procurement of service including work contract. Hence, the firm registered under MSME/OSME required to submit EMD during participation.

23.1. **Earnest Money Deposit:**

The Earnest Money Deposit (EMD) of **Rs.61.27 Lakh shall be remitted on online mode/through BG (Schedule-M)**. Tenders without EMD or with Part EMD or EMD in any other form shall not be accepted and such tenders shall be out rightly rejected. **Exemption of EMD is not applicable to the MSME registered firms/units.**

23.2. **Return of EMD:**

The Bank will remit the **Earnest Money Deposit on submission/ cancellation of bids** to respective bidder's accounts as per direction received from TIA through e-procurement system. (as per the Appendix-II of DTCN).

The earnest money given by other **one parties (L₂)** except one whose tender is accepted shall also be refunded within 15 (Fifteen) days of the acceptance of the tender (as per the Appendix-II of DTCN).

EMD shall also be returned to the unsuccessful bidders of General & Technical Bid (Part-I of tender documents) after finalisation of its evaluation (as per the Appendix-II of DTCN).

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 as mentioned at Clause-23 within **7(seven) days** of receipt of intimation failing which their tender shall be cancelled with the forfeiture of EMD.

aps

23.4. Additional Performance Security:

Additional Performance Security (APS) shall be obtained from the bidder when the bid amount is less than estimated cost put to tender. In such an event, only the successful bidder who has quoted less bid price/rates than the estimated cost put to tender shall have to furnish the exact percentage **(as per following table) in the shape as mentioned at Clause 23** within **7(seven) days** of issue of Letter of Acceptance (LoA) (by e-mail) to the successful bidder otherwise the bid of the successful bidder shall be cancelled and the Earnest Money Deposit/Bid Security shall be forfeited. Further proceeding for Blacklisting shall be initiated against the Bidder.

Government of Odisha vide **Works Department Office Memorandum No.173/W Dt. 03.01.2026** is pleased to fix the following rate of **Additional Performance Security**.

SI No	Incremental Basic of Additional Performance Security.	Additional Performance Security to be deposited by the Successful bidder
i	Below 0% but not below 10% of the Project Cost put to bid.	No Additional Performance guarantee/ Security percentage is required.
ii	Below 10% but not below 20% of the Project Cost put to bid.	0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the Additional Bid Performance Guarantee being 0.1% and the Additional Bid Performance Guarantee percentage shall be applied on the bid price.
iii	Bid price is 20% or more below of the project cost put to bid.	0.2% for every percentage of bid price below 20% of the project cost put to bid in addition to 1% of the bid price and the Additional Bid Performance Guarantee percentage shall be applied on the bid price.
iv	The additional performance guarantee percentage shall be rounded off to the next lower percentage based on whether the decimal point of the percentage of bid price is below 0.5% or next higher percentage based on whether the decimal point of the percentage of bid price is 0.5% or more.	
v	The additional performance security shall be treated as part of the performance security.	
vi	Justification for abnormally low bids shall be scrutinized by the Departmental Technical Committee and recommended to the competent authority of the Administrative Department for the approval of the Additional Performance Security (APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications	

	from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document., If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid/Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.
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23.5. GST Registration Certificate / GSTIN:

Tenderers are required to submit attested copies of valid **GST Registration Certificate / GSTIN**.

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. Total Security Deposit to be received from the bidder is **7% of the accepted value of tender**.

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 **Managing Director, WATCO** 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.
- 24.3.1. 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 12.03.08, 4666/W dated 12.03.2008, 1027/W Dt.24.01.2009 & 7885/W dated 23.07.2013 following changes/ modification/ addendum shall be effected.
- 26.1. **Bid Documents:**
Bid documents consisting of technical bid & price bid 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. **Clarification of Bidding Documents:**
In case of submission of Bids through the e-Procurement Portal, the bidder can seek clarification within the period of seeking clarification as mentioned in tender call notice. The Employers response for the queries raised by the bidder will be posted in the portal
- 26.3. **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 Technical Bid and Financial Bid. Submission of document shall be effected by using Digital Signature Certificate (DSC) of appropriate class and thus shall be in encrypted form.

26.4. Bid Price:

In case of submission of Bids through the e-Procurement Portal, **an intelligent 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 line-item total in words and the total amount in case of item rate tenders shall be calculated automatically and shall be visible to the bidder. In case of percentage tender, 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 contractor will write percentage excess or less up to one decimal point only. The bidder is not supposed to change or modify the format of the excel sheet in any form.

26.5. Bid Security/EMD:

- (i) The bidder shall remit bid security for the amount shown in Col. 4 of the table of Notice Inviting Tender (NIT) **on online mode/ submit in shape of BG**
- (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 uploaded by the bidder is found to be false/ fabricated/ bogus, the bidder will be blacklisted and his EMD/ Bid Security shall be forfeited.

26.6. Submission of Bid:

In case of submission of bids through e-Procurement portal 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 uploaded 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.

26.7. 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.

26.8. The agency should have submitted EPF, ESI & Labour registration certificate.

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 within 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 upload 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:**

30.1 The **Managing Director, WATCO, Bhubaneswar** will open the tenders electronically on the date & time mentioned in the **Notice Inviting Tender (NIT)**.

30.2 (i) A tender shall be rejected if;

- a) Price Bid is not enclosed.
- b) Cost of tender document has not remitted **online** on submission of bid.
- c) EMD as per Clause 2(B)23.1 has not been remitted **online/ submitted in shape of BG**.

(ii) 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.

- a) Proof of eligibility and qualifications is not enclosed.
- b) There are any criminal cases pending.
- c) PAN is not enclosed.
- d) Affidavit is not enclosed.
- e) Power of Attorney is not enclosed.
- f) Record of litigation and arbitration is not enclosed.

- g) Other documents as required not enclosed.
- h) GST Registration Certificate / GSTIN.

30.3. Any such conditions shall be minuted and the price bid shall not be opened. The price bid shall be opened only for those bidders who qualify in the technical evaluation as described at **Clause 33, Section 2(B)**. The date of opening of price bid shall be intimated by FAX/ E-mail/ Speed Post to the qualified bidder of technical evaluation.

30.4. The **Managing Director, WATCO, Bhubaneswar** 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 **Managing Director, WATCO, Bhubaneswar** 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 shall be sought, offered or permitted by the **Managing Director, WATCO, Bhubaneswar** during the evaluation of the tenders.

32. **Determination of Responsiveness:**

32.1. Prior to the detailed evaluation of tenders **Managing Director, WATCO, Bhubaneswar** 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. Tenders, which have not been submitted in the proper form, will be rejected.

32.2. Any tender which is not substantially responsive to the requirements of the tender documents will be rejected by the **Managing Director, WATCO, Bhubaneswar**. 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).

32.3. Conditional Tender shall not be accepted.

32.4. Bid Capacity: These stipulations shall apply to all works **above Rs.3.00 Crores**.

Applicants who meet the minimum qualification criteria will be qualified only if their available bid capacity at the expected time of bidding is more than the total estimated cost of the works. The available bid capacity will be calculated as under:

Assessed Available Bid Capacity = (A*N*2-B), where

A = Maximum value of works executed in any one year during the last five years (updated to the current price level) rate of inflation may be taken as 10 percent per year (escalation factor) which will take in to account the completed as well as works in progress.

(**A'** value corresponding to **Schedule-B**, shall be audited for five years by Regd. Chartered Accountant or competent financial organization/authority).

B = Value of current price level (updated with weightage factor) of the existing commitments and ongoing works to be completed during the next years (Period of completion of works for which bids are invited) and

N = Number of years prescribed for completion of the works for which the bids are invited.

Note: -

- (1) In case of a joint venture, the available bid capacity will be applied for each partner to extent of his proposed participation in the execution of the works.
- (2) The statement showing the value of existing commitments and ongoing works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer-in-charge not below the rank of an Executive Engineer/Superintending Engineer/Equivalent. However, certificate from a registered Chattered Accountant in this regard with verifiable UDIN shall also be accepted
- (3) In case of non-disclosure/hiding of any existing commitment and ongoing works to mislead the tender inviting authority, if detected later, then the tender will be liable for rejection.**

Escalation Factor:

Following enhancement factors will be used for the costs of works executed and the financial figures to a common base value for works completed in India.

<u>Year before</u>	<u>Multiplying factor</u>
One	1.10
Two	1.21
Three	1.33
Four	1.46
Five	1.61

(Applicant should indicate actual figures of costs and amounts for the work executed by them without accounting for the above-mentioned factors)

In case the financial figures and value of completed works are in foreign currency the above enhanced multiplying factors will not be applied. Instead, current market exchange rate (State Bank of India BC selling rate as on the last date of submission of the bid) will be applied for the purpose of conversion of amount in foreign currency into Indian rupees. (Works Deptt. OM No. FA-Codes-97/11-6300 Dt.16.06.2011.)

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 Technical and/or Financial 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 Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.

33.4. Evaluation of Technical Proposals:

- 33.4.1. The Evaluation Committee shall evaluate the Technical Proposals on the basis of their responsiveness to the DTCN.
- 33.4.2. A Proposal shall be rejected at this stage if it does not respond to required aspects of the NIT / DTCN.
- 33.4.3. During technical evaluation, the tenderers should have to make a presentation on the similar nature of works as per eligibility criteria (commissioned & Functional work) before the Evaluation Committee, if so desired by the Committee.

33.5. Evaluation of Financial Proposals:

- 33.5.1. After the technical evaluation is completed, the Employer shall inform in writing or by mail to the contractors, who have qualified in the General and Technical bid (Part-I of DTCN), the date, time and location for opening the Financial Proposals (Price Bids).
- 33.5.2. Financial Proposals of the bidders who qualified in technical evaluation shall be opened.
- 33.5.3. Financial bids determined to be substantially responsive will be checked by the employer for any arithmetic error(s).
- 33.5.4. 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.
- 33.5.5. 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.

33.6. Selection of contractor on the basis of Price Bid:

Other condition being equal, the contractor bidding the lowest price will be considered for acceptance by competent authority.

34. Negotiations:

- 34.1. 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 inconsistent / 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 price bid of the tender by competent authority 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 **Managing Director / Director (Project), WATCO, Bhubaneswar** 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, 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, 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 up load 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.
- d) The bidder shall within **7 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 within **15 days** of issue of LoA, 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.
- e) 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 , OM No.12366/W dated 8.11.2013)

f) 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 P₁**.
- 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: "Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years"
Section-8	Broad Scope of Works: 1. Design, Drawing, Construction, Testing, Commissioning of 5 Nos. Elevated Service Reservoir at capacity 0.7 ML to 1.5 ML at Staging Height 22 m to 26 m. with construction of boundary wall, approach road, gate & laying of paver block in premises of each ESR etc. 2. Construction for SCADA room, Watchman cabin, common Toilet block and Chlorine dose room at each ESR site etc. 3. Post Chlorination and Supply, Installation, testing & commissioning of Pressure control valve, Sluice Valve, Altitude Pilot Control Valve, Electromagnetic Flowmeter, Level Transmitter, Pressure Transmitter, SCADA & PLC with cable laying etc. 4. Providing and Laying of Distribution Network of Dia. 100mm to 450mm DI K-7 and Length- 61308 m. etc. 5. Providing House Service Connection & water meter connection (831 Nos) etc. 6. Road Crossing by Micro-Tunnelling Method etc. 7. Road Restoration Work etc. 8. The Detail item wise quantity as per BoQ.
2(B)1. (a)	Name of the Employer: Managing Director, WATCO, Bhubaneswar.
2(B)33.6	Method of selection: Qualifying in the Technical Bid and L₁ in the Price Bid.
2(B)26.	Two Bid System: Part-I: General & Technical Bid and Part-II: Price Bid to be submitted as detailed at Clause-26, Section-2(B).
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 from the date of opening of Price Bid.
2(B)25.1	Seeking of Clarifications may be requested till 5:00 PM of Dt. 24.07.2026
2(B)30	The tender (Technical Bid) will be opened on following date and time: 12:30 PM of Dt 12.08.2026
2(B)33.5	The date of opening of Price Bid shall be intimated separately by writing or by mail after the technical evaluation is over.

SECTION –2 (D)
LETTER FOR SUBMISSION OF TENDER

[To be filled in by the Bidder]

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

Ref. No. _____/Dated _____

To

The Managing Director, WATCO, Bhubaneswar.

Sub: **Tender for the Work: "Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years".**

Ref: **Identification No. WATCO (W)-11(02)/2026-27 Dtd.13.07.2026 published in the website www.tendersodisha.gov.in.**

Dear Sir,

With reference to the above, we are to inform you that in response to your above referred NIT, 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 price bid.

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 Price 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 **WATCO, Odisha, Bhubaneswar** and such other written instructions as may be given by the WATCO, 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 **Managing Director, WATCO, Odisha, Bhubaneswar**)*

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

Managing Director, WATCO

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		Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years.
2.	Approximate Cost	:	Rs.6126.30 Lakh
3.	Accepted tender Value	:	Rs. _____ Lakh
4.	Bid Security (Earnest Money Deposit) (Online remittance/ In shape of BG)	:	Rs.61.27 Lakh
5.	Initial Security Deposit (@ 2% of the accepted tender)	:	Rs. _____ Lakh
6.	Additional Performance Security (If any)	:	Rs. _____ Lakh
7.	Percentage to be deducted from each Bill as security deposit	:	@ 5 (five) %
8.	Time allotted for completion of the work (from the date of written order to commence)	:	24 (Twenty-Four) Calendar Months
9.	Date of written order to commence.	:	
10.	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. :
- iv. 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. :
- iii. 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 fully been acquainted myself with the local situation regarding materials, labour and the factors pertaining to the work before submitting the tender.
3. I have carefully studied the conditions of the contract, specification and other documents of this work and I agree to execute the same accordingly.
4. 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
5. I shall follow all rules and regulations of the state in force with regard to engagement of labour for the work.
6. 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 of duly authorised vide Resolution No..... dated..... of the Board of Directors of)

In the presence of
(Witnesses)

1.

2.

Contractor

General Manager
WATCO Division-I, Bhubaneswar.

SECTION-6

CONDITIONS OF CONTRACT

6.1. Decision of General Manager is Final & Binding:

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 **General Manager, WATCO Division-I, Bhubaneswar** herein after called the General Manager 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 General Manager 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 General Manager and during the progress of the works to amend on the requisition of the General Manager 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 General Manager 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 General Manager 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 General Manager.

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 General Manager 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 General Manager 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 General Manager 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 General Manager 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 General Manager, 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 General Manager, 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 **Managing Director, WATCO, 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 General Manager 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 General Manager 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 General Manager 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 General Manager 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 General Manager is also to have full power to require other proper materials to be substituted and in case of default, the General Manager 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 General Manager any of the works have been executed with improper materials or defective workmanship, the contractor is then required by the General Manager 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 General Manager 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 General Manager to be amended and

made good by the contractor at his own cost unless the General Manager 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 General Manager 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 General Manager / 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, $\frac{1}{4}^{\text{th}}$ 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, $\frac{3}{4}^{\text{th}}$ of the whole of the work before $\frac{3}{4}^{\text{th}}$ 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 **Managing Director, WATCO, Bhubaneswar** 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 General Manager 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 Director, Managing Director & 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 General Manager 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 General Manager 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 General Manager 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 General Manager by the contractor or may be set off by the General Manager 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 General Manager 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 General Manager 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. amounts 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 at the rate of 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. The cases where the original technically sanctioned estimate gets revised, the technical sanction to the revised estimate will be

obtained from the competent authority as provided under Para 3.11.2 (b) of OPWD Code, Volume-1 Based on the revised technically sanctioned estimate, the Labour & the POL component shall be given the weightage of 5% each as provided in OM No.15847/W dated 19.11.2019 of Works Department and the weightage of 90% on steel, cement, bitumen, pipes, other materials and plant and machinery spare component shall be given as per the technically sanctioned revised estimate excluding the extra items. The revised weightage of "Schedule of Adjustment Data" based on revised technically sanctioned estimate shall be included as an Addendum to the agreement. The technical sanctioning authority shall be the competent authority for this purpose.] (Works Deptt. OM No.1739/W Dt.03.02.2023)

Cl. No.31 of F2/ P1 Contracts Sl. No.	Index description	Source of index	Base value*	Base Date*	Weightage of Item**	
					Sewer/Pipe line work	Structural works
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.			20%	30%
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.			Nil	20%
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.			Nil	20%
31 (a)(iv)	Bitumen (VG-30)	Official retail price of bulk bitumen at the nearest IOC/ HPCL Depot.			Nil	Nil
31 (a)(v)	Pipes	All India Whole sale price index for the			70%	Nil

		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%	5%
31 (c)	POL	Official retail price of HSD at nearest IOCL/ HPCL/ BPCL Consumer Pump Depot.			5%	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.			Nil	20%
Total :					100%	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 General Manager 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) Misbehaviour/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.** If more than one bid is quoted (decimal up to two numbers will be taken for all practical purposes), either at the estimated cost put to tender or less than the estimated cost put to tender, the tender accepting Authority will finalize the tender through a transparent lottery system, where all the concerned bidders/their authorized representatives, the concerned SE/EE of the concerned Division and Divisional Accounts Officer (DAO) will remain present.

If the rate quoted by the SC and ST Category Contractors comes to the rate quoted by the L1 bidder (decimal up to two numbers will be taken for all practical purposes) after availing 10% price preference as per Para 2 of Works Department Resolution No. 27748 dated. 11.10.1977, the tender shall be finalized by the tender accepting authority through a transparent lottery system along with other categories of contractors.

(Works Department OM No.632/W Dtd.09.01.2026).

- 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 **General Manager/ Director/ Managing Director** for his information. In case of failure to notify the change in the constitution within 15 days, the **General Manager/ Director/ Managing Director** 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 General Manager 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 him-self 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 General Manager 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 up to date progress.
 - (iv) Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative up to 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 up to 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 up to 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 General Manager and the Superintending 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/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 **15 (fifteen) days** of receipt of Letter of Acceptance after depositing the ISD.

The ISD shall be deposited **in shape as mentioned at Clause 23, Section- 2(B) of DTCN**. 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 Initial security deposit 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 General Manager 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

General Manager 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 **General Manager** for approval under intimation to the **Director/ Managing Director, WATCO, 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 General Manager 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 proclamation, 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 General Manager 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 General Manager 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 **General Manager** (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 **General Manager**.
- 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 **General Manager**.

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 **General Manager** 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 **Managing Director, WATCO, 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 General Manager shall have the right to enquire into and decide any compliant 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 General Manager or Manager 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 General Manager may grant an exemption form the maintenance of wage bond, 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 General Manager 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 General Manager 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.

7.28.16. **Quality assurance plan:**

Work, supply of mechanical equipment, electrical panel, mandatory spares or services should offer by the contractor followed with quality assurance plan to the department before taking up the work. A quality assurance plan (**QAP**) has to be approved by the competent authority before taking up work, supply of equipment & services.

7.28.17. The quoted rates must include cost towards DMF (@10% of Royalty), EMF (@5% of Royalty), Additional Charges as applicable in addition to royalty of minor minerals used in the project. The same shall be realised from the R/A Bills of contractors on failure to production of money receipt towards payment of same.

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-8

SCOPE OF WORK

8.1 GENERAL

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, "**Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years**".

8.2. Location:

Town : Jharsuguda

District : Jharsuguda

State : Odisha

Connected to : Jharsuguda

Nearest Railway Station : Jharsuguda

8.3. Items of Work to be executed:

Construction of ESR and laying of Distribution system Including Automation work to Different Zones for 24X7 water supply to Jharsuguda Municipality Including O&M period of 5 Years as follows: -

1	Design, Drawing, Construction, Testing, Commissioning of 5 Nos. Elevated Service Reservoir at capacity 0.7 ML to 1.5 ML at Staging Height 22 m to 26 m. etc.
2	Construction for SCADA room, Watchman cabin, common Toilet block and Chlorine dose room at each ESR site etc.
3	Post Chlorination and Supply, Installation, testing & commissioning of Pressure control valve, Sluice Valve, Altitude Pilot Control Valve, Electromagnetic Flowmeter, Level Transmitter, Pressure Transmitter, SCADA & PLC with cable laying etc.
4	Providing and Laying of Distribution Network of Dia. 100mm to 450mm DI K-7 and Length- 61308 m. etc.
5	Providing House Service Connection (831 Nos) etc.
6	Road Crossing by Micro-Tunnelling Method etc.
7	Road Restoration Work etc.
8	The Detail item wise quantity as per BoQ.

As per DTCN Part – II: Price Bid/BoQ

Scope for Operation and Maintenance for 24x7 Water Supply at Naharkanta.

8.4.1. During the Operation & Maintenance Period, the Authority shall provide to the Contractor access to the Site for Operation & Maintenance in accordance with this Agreement. The obligations of the Contractor hereunder shall include:

- (a) permitting safe & smooth functioning of Water Supply Project;
- (b) undertaking routine maintenance including prompt repairs of Civil, Electrical & Mechanical installations including pipe lines;
- (c) undertaking repairs to structures;
- (d) informing the Authority of any unauthorized use of the water supply project;

- (e) informing the Authority of any encroachments on the water supply project; and
 - (f) operation and maintenance of all conveyance systems necessary for the efficient operation & maintenance of the Water Supply Project in accordance with the provisions of this Agreement.
- 8.4.2. In respect of any Defect or deficiency not specified, the Contractor shall, at its own cost, undertake repair or rectification in accordance with Good Industry Practice, save and except to the extent that such Defect or deficiency shall have arisen on account of any default or neglect of the Authority or a Force Majeure Event.
- 8.4.3. The Contractor shall remove promptly from the Water Supply Project any waste materials (including hazardous materials and waste water), rubbish and other debris (including, without limitation, accident debris) and keep the Water Supply Project in a clean, tidy and orderly condition, and in conformity with the Applicable Laws, Applicable Permits and Good Industry Practice.
- 8.4.5. The Contractor shall prepare a monthly operation & maintenance program (the **Operation & Maintenance Program**) in consultation with the Authority and submit the same to the Authority not later than 10 (ten) days prior to the commencement of the month in which the Operation & Maintenance is to be carried out. For this purpose, a joint monthly inspection by the Contractor and the Authority shall be undertaken. The Operation & Maintenance program shall contain the following:
 - (a) The condition of the Civil, Electrical & Mechanical installations including pipe line in the format prescribed by the Authority,
 - (b) the proposed operation & maintenance works; and
 - (c) deployment of resources for operation & maintenance works.
- 8.4.6. The Contractor shall not close any Zone of the Water Supply Project for undertaking operation & maintenance works except with the prior written approval of the Authority. Such approval shall be sought by the Contractor through a written request to be made at least 10 (ten) days before the proposed closure of Zone and shall be accompanied by particulars thereof. Within 5 (five) business days of receiving such request, the Authority shall grant permission with such modifications as it may deem necessary.
- 8.4.7. Upon receiving the permission pursuant to Clause 8.4.6, the Contractor shall be entitled to close the designated Zone for the period specified therein, and in the event of any delay in re-opening such Zone, the Contractor shall, for every stretch of 250 (two hundred and fifty) meters, or part thereof, pay Damages to the Authority calculated at the rate of 0.1% (zero point one per cent) of the monthly operation & maintenance payment for each day of delay until the Zone has been re-opened for Water Supply.
- 8.4.8 Reduction of payment for non-performance of Operation & Maintenance obligations**
- 8.4.8.1 In the event that the Contractor fails to repair or rectify any Defect or deficiency within the period specified therein, it shall be deemed as failure of performance of Operation & Maintenance obligations by the Contractor and the Authority shall be entitled to effect reduction in monthly lump sum payment for operation & maintenance in calculated at the rate of 0.5% (zero point five per cent) of the monthly operation

& maintenance payment for each 12 hour of delay until the Zone has been re-opened for Water Supply.

- 8.4.8.2. If the nature and extent of any Defect justify more time for its repair or rectification than the time more than 12 hours, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Authority and conveyed to the Contractor.

8.4.9 Authority's right to take remedial measures

In the event the Contractor does not maintain and/or repair the Water Supply Project or any part thereof in conformity with the Operation & Maintenance Requirements, the Operation & Maintenance Manual or the Operation & Maintenance program, as the case may be, and fails to commence remedial works within 15 (fifteen) days of receipt of the Operation & Maintenance Inspection Report or a notice in this behalf from the Authority, the Authority shall, without prejudice to its rights under this Agreement including recession thereof, be entitled to undertake such remedial measures at the cost of the Contractor, and to recover its cost from the Contractor. In addition to recovery of the aforesaid cost, a sum equal to 20% (twenty per cent) of such cost shall be paid by the Contractor to the Authority as Damages.

8.4.10. Restoration of loss or damage to Water Supply Project

Save and except as otherwise expressly provided in this Agreement, in the event that the Water Supply Project or any part thereof suffers any loss or damage during the Operation & Maintenance from any cause attributable to the Contractor, the Contractor shall, at its cost and expense, rectify and remedy such loss or damage forthwith so that the Water Supply Project conforms to the provisions of this Agreement.

8.4.11. Overriding powers of the Authority

- 8.4.11.1. If in the reasonable opinion of the Authority, the Contractor is in material breach of its obligations under this Agreement and, in particular, the Operation & Maintenance Requirements, and such breach is causing or likely to cause material hardship or danger to the Users and pedestrians, the Authority may, without prejudice to any of its rights under this Agreement including recession thereof, by notice require the Contractor to take reasonable measures immediately for rectifying or removing such hardship or danger, as the case may be.

- 8.4.12. The selected agency shall be responsible for the comprehensive operation and maintenance (O&M) of Distribution System, ESR, DG sets, Pump sets & all instrumentation and control systems installed in the 24x7 DMA, including:
Control valves (pressure-reducing valves, actuated valves, etc.),
Flow meters (electromagnetic/ultrasonic),
Pressure gauges and pressure transducers,
Programmable Logic Controller (PLC) systems,
Supervisory Control and Data Acquisition (SCADA) system etc.
The scope also includes ensuring uninterrupted 24x7 water supply service with real-time monitoring and control through SCADA integration.

8.4.13. System Performance & Data Integration

The agency shall ensure all instruments are operational at all times and that their data is correctly logged and displayed on the SCADA dashboard.

Flow, pressure, and control data must be reflected accurately and in real time on the centralized control panel.

The SCADA system must be synchronized with field devices (PLC, transmitters, sensors) to ensure end-to-end functionality.

Any communication loss or system error must be identified and rectified within 24 hours.

8.4.14. Routine Maintenance Responsibilities

The agency shall carry out routine preventive maintenance of all instruments and systems, including:

Calibration of flow meters and pressure sensors

Functional checks of actuated valves and control mechanisms

Cleaning and inspection of sensors

PLC and SCADA software diagnostics and backups

A detailed maintenance logbook shall be maintained and updated by the agency with dates, actions taken, and signatures of the responsible technician.

8.4.15. Instrumentation Faults and Replacement

In case of instrument failure or malfunction, the agency shall:

Immediately report the issue to the department

Diagnose and isolate the faulty component

The agency shall be responsible for their replacement, installation, calibration, and integration into the control system.

No additional payment shall be made to the agency for replacement works.

8.4.16. Control System and SCADA Functionality

The agency shall ensure that:

PLC panels are always live, and all inputs/outputs are working.

SCADA visualization, alarms, and trends are updated and functional.

The control logics and settings (e.g., for valves) are maintained and not tampered with without written instruction from the department.

Any software upgrades or patches to SCADA shall be executed with prior approval.

8.4.17. Monthly Certification

The agency shall submit a Monthly Compliance Certificate in the prescribed format certifying that:

Water supply has been running 24x7 without interruption in the DMA.

All instruments and control systems are functioning properly.

Preventive maintenance has been conducted as per schedule.

Any faults and corrective actions taken have been documented.

The certificate shall be verified and signed by the authorized representative of the agency and countersigned by the departmental in-charge.

8.4.18. Reporting & Documentation

The agency shall submit:

Daily performance reports of flow, pressure, and valve operation (through SCADA or in approved format)

Monthly maintenance and fault summary

SCADA downtime and data loss logs, if any

Reports shall be submitted in both soft and hard copy.

8.4.19. Penalty Clause

In the event of:

Failure of 24x7 water supply due to negligence in instrumentation upkeep

Non-submission of certification/reports

Repeated communication failure with SCADA or prolonged system outage

A penalty as per above clause No.8.4.8.1. contract terms may be levied after review by the department.

8.4.20. Consumables and Chemicals

The Operation & Maintenance Agency shall be solely responsible for the procurement, supply, storage, and utilization of all consumables, chemicals, lubricants, disinfectants, and any other materials required for the smooth and uninterrupted operation of the Water Supply system etc. All such costs shall be borne entirely by the Agency and no separate payment shall be made by the Authority. Failure to maintain adequate stock or to use the required quality and quantity of consumables and chemicals, resulting in disruption of services or deterioration in performance standards, shall attract penalties as specified under the penalty clause of this contract.

N.B.: -

- 1. For all civil works the layout drawing, structural drawing & design, hydraulics design to be approved by the authority before execution.**
- 2. For all mechanical, electrical and automation work, the individual items QAP to be submitted including make and specification to be approved by the authority before execution.**
- 3. Contractor shall take the necessary precautions to avoid the damage to other services such as water supply lines, telephone & electrical cables, storm water drains etc. In case of any damages to any of the services, contractor shall be responsible for restoring the facilities in bare minimum time at his own.**

However, in case where shifting of utilities is required for execution of the project, the executing agency shall inform the authority in advance and provide all logistic support for obtaining necessary permission from the concerned owning authorities. The expenditure to be incurred for the said purpose shall be borne by the Authority.

4. Upon completion of the project, the agency shall submit the as-built drawings to the Department which is mandatory.

SECTION – 09

TECHNICAL SPECIFICATIONS & DESIGN CRITERIA

9.1. Design Standards

CPHEEO manual on Water Supply and relevant I.S. Specification & Standards

9.2. General Conditions:

1. Cement shall not be less than O.P.C.-43 grade of reputed manufactures confirming to relevant IS.
2. The steel reinforcement shall be of SAIL/RINL/TATA/JINDAL STEEL/ SHYAM STEEL 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 approved epoxy 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 equipments, 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 equipments, 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 it's obligation to replace forth with any instrument/materials found defective during tests at works / trial running period/guarantee period.
19. Testing for performance of equipments 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. **Electrical equipments/ installation:** All the Electrical equipments/ installations shall be energy efficient and confirm to star rated/ BEE as applicable. **The Electrical Power Factor should not be less than 0.92.**

23. Piping & Valves:

Type of joint	Tyton/Push on 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.
MS pipe work:	
Specifications	The MS pipes of 100 & 150 mm dia shall confirm to IS:1239 & MS pipe of 200 mm dia. and above shall confirm to IS:3589 (latest revision).
Wall Thickness	Not less than 6 mm upto 300 mm dia Not less than 8 mm above 300mm up to 600 mm dia. Not less than 10 mm above 600mm up to 800 mm dia. Not less than 12 mm above 800mm dia.
In-lining & out coating	The internal Cement Mortar lining as per IS11906/1986 & external 3 LPE (three layer of poly ethylene) coating as per DIN standard for MS pipes of 600mm dia and above. At welded joints there shall be Heat shrink sleeves need to be done at site as per specification. The internal and external lining shall be of food grade epoxy coating not less than 406 micron for MS pipes below 600 mm dia.
Laying	IS:5822/1986
Flange thickness	As per relevant ISS
PVC 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
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.

Specification & material for chemical dosing pipe.	IS: 4985/2000 UPVC.
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.

VALVES FOR WATER APPLICATION

SLUICE VALVES

Shall generally conform to IS 14846, with length over flanges as per PD of IS 14846 corresponding to BS EN – 558 / ISO 5752 Basic Series 3 in DI construction having metal seating (IS 318 Gr. LTB 2). Upto 600 mm diameter should essentially be glandless design.

Component	Material of construction
Body / Door / Dome	Ductile Iron IS 1865 Gr. 400/15 or 500/7
Spindle	Non rising; Stainless Steel AISI 410 / 420
Body seat / Door face	Gun metal: IS 318 Gr. LTB 2 / BS 1400 LG 2 Upto 350 mm – press fitted or deposited 400 mm and above - press fitted and riveted; no screws allowed The body seat / door face width shall be equal, and allowing for reasonable wear travel as specified in IS 14846, or more.
Rivets	Soft annealed brass
Spindle Nut	Gun metal: IS 318 Gr. LTB 2 / Al – bronze
Stem seal	EPDM (GLANDLESS – upto 600 mm) 700 mm and above - Gland & Stuffing box type with hemp packing
Fasteners	Carbon steel (IS 6603 Class 4 / 4.6)
Flange Drilling	IS 1538 Table 4 & 6 or BS EN 1092-2
PN	1.0 / 1.6
Accessories (400 mm and above)	Ball thrust bearings to be housed above the wet chamber ie. above the gland / glandless adaptor. Enclosed Spur Gear Box for ease of operation. Air Plug

Painting / Coating	Inside & Outside epoxy liquid coated DFT minimum 250 micron, shade RAL 5005 / 5015 (BLUE)
Hydro-test (Open Ended only)	Seat: 10 / 16 Kg/cm ² ; Body: 15 / 24 Kg/cm ²
Operation	Manual operation by handwheel. Motorised operation by means of electrical actuator.

For drinking water distribution lines requiring no throttling only, valves up to 300 mm may be of fusion bonded epoxy powder coated resilient seated & glandless type, should the engineer – in – charge insists upon it.

Refer following specification for such valves.

RESILIENT (SOFT) SEAT GATE VALVES

These will be heavy duty with a proven track record of having worked successfully for 10 years in Indian condition, approx. while flange to flange distances may be as per IS – 14846, the valves may generally conform to EN 1171(.).

Component	Material of construction
Body (Pocket less)/Bonnet	Ductile Iron IS 1865 Gr. 400/15 or 500/7
Door	EPDM vulcanized with a DI core, sufficiently strong to withstand PN 1.6 pressure
Spindle	Non rising; Stainless Steel AISI 420
Spindle Nut	Gun metal: IS 318 Gr. LTB 2 / Al – bronze / Brass
Stem seal	EPDM, Toroidal, minimum 3 Nos.
Fasteners	Carbon steel, galvanized/ SS 304
Flange Drilling	IS 1538 Table 4 & 6 or BSEN 1092-2
PN (Mpa)	1.0 / 1.6
Painting / Coating	By fusion bonded Epoxy powder, Inside & Outside, DFT minimum 250-micron m., shade RAL 5005 / 5015 (BLUE)
Hydro-test by Closed end method	Seat: 10 / 16 Kg/cm ² ; Body: 15 / 24 Kg/cm ²

Note:

These valves may be used for only clean, filtered, potable water distribution lines.

These should not be used for treatment (filter) plants, pumping stations, sewage and raw water application.

These should not be used for throttling and scour duty.

Non-Return Valves

Valves up to 600 mm dia. shall conform to IS 5312 Part 1 & above to IS 5312 Part 2. Valves shall be in graded DI with metal to metal (IS 318 Gr. LTB 2) seating; SS AISI 410 stub pins & inclined seat design. The door shall be integral with the hinges and shall have a flat seating face. Valves above $\phi 600$ mm must be of multi – door design. For multi-door non return valves, minimum two (2) sets of suspension lugs shall be cast integrally on the diaphragm plate, sufficiently apart from each other, shall be of adequate strength for assembly with corresponding door hinges, two numbers for each door. In other words, each door must have two integral hinges, sufficiently apart and of adequate strength.

Valves shall have quick closing non – slam characteristics in-built without any external or internal dampening arrangements.

Valves shall be rated PN 1.0 / PN 1.6 (as per final design & BOQ) and flanges faced and drilled as per IS 1538 Table 4 & 6 / IS 9523 / BS EN 1092 – 2. Shall be coated internally and externally with epoxy liquid coating (minimum DFT 250 micron) – Shade: BLUE (RAL 5005/ 5015)

Component	Material of construction
Body / Door (& Diaphragm)	Ductile Iron IS 1865 Gr. 400/15 or 500/7
Hinge pin (for single door type) / Stub pin (for multidoor type)	SS AISI 410
Seat & Face rings	Gun metal: IS 318 Gr. LTB 2
Rivets	Soft annealed brass
Fasteners	Carbon steel (IS 6603 Class 4 / 4.6)
Flange Drilling	IS 1538 Table 4 & 6/ BS EN 1092 – 2
PN	1.0 / 1.6
By – pass arrangement	Optional

Painting / Coating	Inside & Outside epoxy liquid coated; DFT minimum 250-micron, shade RAL 5005 / 5015 (BLUE)
Hydro-test	Seat: 10 / 16 Kg/cm ² ; Body: 15 / 24 Kg/cm ²

COMBINATION AUTOMATIC AIR VALVE - SINGLE CHAMBER TYPE

Air valve for clean, cold potable water up to 50°C

PN 1.0 / 1.6

DN 80 - 200

Single-chamber valve - automatic operation with water.

Two-orifice venting system with 3 functions (supply and release of air as well as automatic venting during operation)

Flange connection dimensions to BS EN 1092 - 2/ IS 1538 Table 4 & 6

Body and Cover made of Ductile Iron IS 1865 Gr. 400 / 15

Inner parts made of stainless-steel grade 304

Seal made of EPDM

Corrosion protection:

Inside and outside with epoxy powder coating; thickness >250 µm, colour: RAL 5005 blue

Accessories: Must have a metal seated gate valves (description as above for Sluice Valves upto 300 mm) of same diameter for isolation purpose, complete with gasket and fasteners.

BUTTERFLY VALVE

The butterfly valves shall generally conform to IS 13095 / BS EN 593, with length over flanges as per Double flanged Short (BS EN 593 / BS EN 558 / ISO 5752 Basic Series 13).

50 to 200 mm: Concentric design

Component	Material of construction
Body	Ductile Iron IS 1865 Gr. 400/15 or 500/7 with EPDM liner in the inside acting as the seat
Disc	Ductile Iron IS 1865 Gr. 400/15 or 500/7
Shaft & Pin	SS AISI 420
Bush	Polymer
'O' ring	NBR
Flange Drilling	EN 1092 – 2, Table 9

PN	1.0 / 1.6
Mandatory accessories:	
Enclosed worm gear box	Required: CI/DI with IP 54 protection
Mechanical Position Indicator	Yes
Limit stops	Yes
Operation	Manual operation by handwheel. Motorised operation by means of electrical actuator.

COATING: Outside coated with epoxy powder; DFT not less than 250 microns. Shade: RAL 5005 (Blue)

250 mm and above: Eccentric Valves

Component	Material of construction
Body / Disc	Ductile Iron GGG 40 / IS 1865 Gr. 400/15 or 500/7
Stub Shafts	SS AISI 431
Bearings	Steel backed Teflon (co-efficient of bearing friction not more than 0.1)
Body seat	Integral (Monel 60) Ni – Cu alloy weld deposited
Disc seal	EPDM
Disc seal retainer	SS 304 / Ductile iron
Shaft seal	Halprene
Internal Fasteners	SS
Flange Drilling	IS 1538 Table 4 & 6/ BS EN 1092 – 2
PN	1.0 / 1.6
Mandatory accessories:	
Enclosed worm gear box with additional spur gear boxes, if required	Required: CI/DI with IP 54 protection
Mechanical Position Indicator	Yes
Limit stops	Yes
Operation	Manual operation by handwheel. Motorised operation by means of electrical actuator.

PAINTING: Inside and outside quoted with liquid epoxy; DFT not less than 250 microns. Shade: RAL 5005 (Blue)

PRESSURE REDUCING / RELIEF / SUSTAINING / ALTITUDE CONTROL VALVES

PRINCIPLE OF ACTION

The impulse transmitting device is a spring and diaphragm operated pressure regulating valve on a bypass to the main valve. Essentially the main valve element is a differentially loaded hydraulically operated freely floating piston operating in a cylinder on the top and seating against a valve seat at the bottom. There is a regulating valve acting as throttle controlling flow of water from the top of the cylinder to regulate the movement of the main valve element. The degree of opening of the valve (port area) under certain conditions of inlet pressure on the downstream side, directly aided by the setting of the spring in the diaphragm operated relay valve. Discharge through the valve depends entirely on the pressure differential between upstream and downstream, also it depends on the system characteristic of the downstream reach of the pipeline.

APPLICATION

As the valve is drop tight in design, it can be adapted to a variety of working conditions. The same basic design can be modified to act as a pressure reducing, a sustaining or a regulating valve. A fixed pressure differential is possible to maintain between upstream or a certain specified downstream pressure when the system so requires. Flow would be infinitely variable from zero to full flow under a given condition which can be determined only having regard to the overall hydraulic parameters of the system.

SIZE RANGE (PN 1.0 / 1.6)

NB: 80, 100, 150, 200, 250, 300, 350, 400, 450, 500 & 600 mm

CONSTRUCTION:

Body / Bonnet / Cover / Internal Valve: DI / S G Iron IS 1865 Gr. 500/7 or 400 /15

Valve Seat: Bronze IS 318 Gr. LTB2

Valve Face / Joint / Membrane: Elastomer

Stem / Disc: SS AISI 304 / 316

Spring: SS AISI 304

Diaphragm operated relay (assembly): Manufacturers standard

Throttling Cock / Needle valve (optional): Gun metal (Manufacturers standard) / SS

Isolating Valve: Manufacturers standard

Strainer: SS or Bronze with Copper Wire Cloth

Pressure gauge: Manufacturers standard

Connecting Pipes: Copper / Stainless Steel / Fabric reinforced rubber with cadmium plated steel connection

Fasteners: Carbon Steel, Galvanized

Coating: Liquid epoxy primer followed by liquid epoxy paint (inside and outside) or fusion bonded epoxy powder coating, min DFT 250 microns; RAL 5005 / 5015 (Blue).

Flange standard: EN 1092 – 2, Table 9. Drilling may be as per IS 1538 Table 6.

Manufacturer should be able to demonstrate on their shop floor pressure reduction to a preset value in the downstream side other than hydro-static tests.

PLUNGER FLOW CONTROL VALVES

Plunger valves shall be double flanged. The flow path with annular flow cross section in any open position shall be rotationally symmetric. The movement of piston / plunger by means of

crank / shaft / spindle drives shall be Axial / Linear along with irreversible worm gear box including position indicator. The material of construction shall be as under:

Body / End Cover	Ductile Iron GGG 40 / IS 1865 Gr. 400 / 15
Plunger / Needle / Piston	Stainless Steel AISI 304
Guide	Bronze
Shaft / Crank	Stainless Steel with 13% Chromium (AISI 420) OR AISI 304
Seal (on body)	EPDM
Seal Retainer	SS AISI 304 / CF 8 / CF 8M
Bush	Bronze / Gun Metal to IS 318 Gr. LTB 2 / Engineered Plastic
Pinion	SS AISI 304
Pinion Bush	PTFE
Worm Gear Box	Manufacturer's standard
Internal fasteners	SS AISI 304
External fasteners	Carbon Steel (hot dip galvanized)

The valves shall be designed for flow control applications for providing precise control over the flow rates. The valves shall be designed to cause minimum head loss.

The valves may preferably be provided with electrical actuators having the control facility for intermediate valve positioning by connecting external signal. The electric actuator shall be complete with integral starter, push button station, local / off / remote selector switch, adequate nos. of intermediate limit switches, thermal overload relay, space heater, local position indicator (LCD display). Shall be of regulating duty (with continuous duty motor) complete with positioner / inching duty (max 150 starts per hr) complete with electronic position transmitter (4 – 20mA). Commands / electric signals for positioning of the control valve actuators will be from local PLC unit. The Contractor shall comply with the compatibility requirements of the flow control valves with local PLC unit by providing industry standard digital communication protocol. The electric actuators shall be designed to provide the required torque for operations in the flow and pressure conditions of the water transfer system. Gear assembly shall be provided as necessary.

A handwheel shall be provided so that the valve can be operated even when the power supply of the control valve has failed. The torque requirements at the handwheel shall be such that one person can operate the valve against the maximum unbalanced head.

The body shall be protected from corrosion by providing epoxy powder / liquid coating; Shade RAL 5005 (Blue), min. DFT 250 microns.

The body of the valve shall be designed and tested for the applicable pressure rating of the system i.e., PN 1.0 / 1.6. Flanges to be drilled as per IS 1538 Table 4 & 6 or BS EN 1092 – 2.

General

1. Hydro – testing:

	PN 1.0	PN 1.6	Criterion
Seat test (Kg/cm ²)	10	16	Drop - tight
Body test (Kg/cm ²)	15	24	No leakage and deformation

2. Torque / Operating effort / Operating time: Manufacturer to furnish data and if required supporting calculation for review / approval.

3. Motorised Valves to be operated with AUMA Epac / Rotork Syncropak electrical actuator complete with integral starter, suitable for hooking on to SCADA system. If inching duty is required for butterfly valves to be used for throttling, actuators shall additionally include electronic position transmitter (for 4-20 mA feedback signal)

4. All Electrically operated valves must be operated fully at least 2 times to demonstrate trouble free and smooth operation. Additionally, 10 % of such valves must be cracked open with Electric actuator with the closed seat under full differential/ working pressure to demonstrate proper selection of Gear box (where applicable) and Electric actuator.

Technical Requirement:

1. All the valves shall confirm to relevant **BIS/BS/AWWA** and bear such embossed certification mark.
2. Valves, wherever required, shall be provided with extended spindle (AISI-410/420 material) and head stock so that hand wheels can be provided at 1.2 m level for manual operation.
3. All valves for water supply & air applications shall be DI body with 13% Chrome-steel (AISI-410/420) spindle and seat & seat ring made of gun metal. All valves for chemical & corrosive application shall be Teflon body & internals.
4. The valves shall be double flanged body with 'raised-face' flanges and drilling to conform IS: 1538.
5. RCC Valve chambers/CI surface box as required shall be provided for the valves with CI lockable manhole of standard size.
6. 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.
7. 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.
8. 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.
9. 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.

24. **ESR**

Design and Construction of RCC Water Storage Elevated Service Reservoir of different capacity (as per BoQ) with all works such as soil investigation, Design, drawing RCC foundation, excavation, back filling & disposal of earth, RCC & PCC of required grade, shuttering, Epoxy painting of structure, finishing with loading, delivery, washout and overflow connection pipes up to 10m beyond tank structure, valves fitting, expansion joints, level indicator, lighting arrester etc. including supply of all labours, materials, tools & plants including testing & commissioning etc all complete as per specification and direction of Engineer-in-charge.

Elevated Service Reservoirs (ESR)

Design and Construction of RCC Water Storage Elevated Service Reservoir of different capacity (as per BoQ) with all works such as soil investigation, Design, drawing, RCC

foundation, excavation, back filling & disposal of earth, RCC & PCC of required grade, shuttering, Epoxy painting of structure, finishing with loading, delivery, washout connection pipes up to 10m beyond tank structure, valves fitting, expansion joints, level indicator, lighting arrester, grid earthing etc. including supply of all labours, materials, tools & plants including testing & commissioning etc all complete as per specification and direction of Engineer-in-charge.

- a) Site clearance and removal of all trees, debris, above and underground structures etc. Stacking of dismantled material and disposal of surplus material. Site dressing and levelling the surrounding ground to the final ground level.
- b) Excavation in foundation in all kinds of soil, including shoring and shuttering wherever required. Stacking of excavated material and disposal of surplus material.
- c) Design and Construction of RCC Water Storage Elevated Service Reservoir of different capacity (as per BoQ) with all works such as soil investigation, Design, drawing RCC foundation, excavation, back filling & disposal of earth, RCC & PCC of required grade, shuttering, Epoxy painting of structure, finishing with loading, delivery, washout connection pipes upto 10m beyond tank structure, valves fitting, expansion joints, level indicator, lighting arrester etc. including supply of all labours, materials, tools & plants including testing & commissioning etc all complete as per specification and direction of Engineer-in-charge.

Soil Investigation for ESR shall be in the contractor's scope.

Details of Elevated Service Reservoirs

SL	Location	ESR capacity	Stage height (m)	Outlet diameter (mm)	Loading line Dia(mm)	Pipe material
1	Banguwari	1500.00 KL	25.00	As per direction of Engineer in charge		
2	Banguwari	1500.00 KL	25.00	As per direction of Engineer in charge		
3	Nakhara	1500.00 KL	22.00	As per direction of Engineer in charge		
4	Near NH	1500.00 KL	26.00	As per direction of Engineer in charge		
5	Shivshakti Nagar	700.00 KL	25.00	As per direction of Engineer in charge		

- d) Backfilling of foundation with selected excavated earth and disposal of the surplus earth as per detailed specification.
- e) Supplying, laying, jointing and fixing of CI/ DI pipes (inlet, outlet, overflow and scour, etc.), specials and valves of required size including embedding wherever necessary, excavation of trench for laying of pipe line, construction of valve chamber, testing and commissioning of pipe line. The overflow and scour pipeline is to be extended up to nearest drain.
- f) Supply, erection and testing of EM/ Ultrasonic water level indicator to indicate the

water level in the ESR, manual water gauge & electromagnetic full bore type flow meter at inlet of ESR, appropriate size double chamber altitude pilot control valve of grade WCB (as per BoQ) at inlet of ESR 200 mm. dia pressure gauge in the loading line with necessary SS needle valve, snubber etc including necessary isolation valve (as per BoQ).

- g) Manholes with cover, stainless steel access ladder for inside of tank and another fixed type steel ladder on outside wall of tank and Stainless steel of 304 grades in hand railing using 50 mm dia of 2 mm thick circular pipe with Balustrade of size 32mm x 32mm x 2 mm @ 0.90mtr. C/C and stainless square pipe bracing of size 32mm x 32mm x 2mm in 3 rows in stair case, etc., including safety, installation, testing, commissioning, making connections with existing pipeline, as per specifications and drawings.
- h) Construction of required number and size of valve chambers as per approved drawing.
- i) Supply and fixing of 4nos. number **lightening arrester** on top of dome of Elevated Service Reservoir as per relevant IS code.
- j) Supply of fluorescent Glow Sign Board & Signage's with details in attractive colors with all fittings, etc. of appropriate size and fixing it at appropriate height at the entrance gate as well as in the compound wherever required as per detailed specifications and directions of Engineer in Charge.

1. **Site Plan:**

The location of ESR shall be as per direction of Engineer-in-charge.

2. **Site Visit:**

The tenderer before tendering shall inspect the site at his own cost in consultation with Engineer in charge of the work and shall satisfy him with regard to the nature and extent of the work involved, the actual site conditions, and existing facilities & shall collect any other information which may be required before submitting the tender. Any claim afterwards by the tenderer shall not be entertained on account of the ignorance of the site conditions.

3. **Format Language and Units:**

The language of all documents shall be in English. Units of measurement in the documents, on the drawings, and the submissions shall be in S.I/ Metric Units.

4. **Quality of Material and Workmanship:**

All the materials supplied by the contractor shall be best of their respective kinds and shall comply with latest revisions of Indian Standards/ International Standards/ Water Supply & Public Health regulations stipulated by Govt. of India, AWWA, State Pollution Control & Prevention Board, Indian Electricity Rules and other statutory requirements of Govt. of India and Govt. of Orissa.

The contractor shall be responsible for the design of the entire system and quality of materials and workmanship. The contractor shall guarantee the satisfactory functioning & performance. If any modification/ replacement is necessitated during trial-run and guarantee period, the same shall be carried out immediately free of cost.

5. Construction & Erection Facilities:

Water, power, accommodation and storage of materials for construction, erection and fabrication at site shall be arranged by the contractor at his own cost. The power supply & consumption during the construction stage shall be the responsibility of the contractor & no extra payment shall be made on account of this. Department will be responsible for supply of water for testing, trial running & commissioning of the pipeline. The power supply and consumption during testing and commissioning and trial running shall be the Department's responsibility.

6. Testing:

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.

7. Completion Schedule:

The time is the essence of this contract. The entire job is to be completed as specified elsewhere in the tender. The tenderer shall submit a work plan indicating starting and completion dates of each activity.

On approval, the work Plan shall form a part of the contract as detailed in the Section-6 & 7 of this DTCN. The successful tenderer shall submit work plan for monitoring of the project as per relevant clause of "Conditions of Contract / Special Condition of Contract".

8. Tendering:

Ordinarily, modifications of technical specifications during execution of the work shall not be permitted excepting in cases where such a modification is warranted due to technical requirements.

1. Soil Investigation Report: -

- i. The agency has to conduct various type of tests at his own cost at the proposed site of structure as per IS specification through recognized Govt. Laboratory of Odisha to ascertain the correct S.B.C of the proposed site & based on that report the design & drawing shall be prepared & submitted to department for approval.
- ii. While designing the reservoir (GSR/ESR) it shall be ensured that the weight of the structure including foundation water, weight of earth over burden of foundation / slab/ raft/ as applicable shall be within the permissible limit of SBC.

2. Machine mix shall be used in concrete works of structure. 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 & 28 days for testing by the department at any recognized Govt. testing laboratory, selected by the department and the testing charges shall be borne by the contractor. Besides the above arrangements, contractor shall also carry out such tests as required by the department at regular intervals at his own cost. Samples shall be taken from the concrete prepared for use in the following components of the structure.

25. House Service Connection

The house service connection shall consist of one clamp saddle with engineering plastic clamp & underneath projection for self-interlocking with D.I main pipe, one brass ferrule, one gunmetal valve, two compression adaptor & two double compression elbow as per ISO17885 standard and MDPE pipe (PE-80 blue pipe) 6 meter (approx.) as per ISO4427 standard. The clamp saddle shall be of wrap around design, wide skirt and wide straps support which shall reinforce the pipe providing stability to saddle, non-corrosive plastic body moulded to stainless steel threaded metal insert for taping.

Double compression elbow shall be suitable for ½ inch MDPE pipe as per ISO 4427 standard PN-16 compression adaptor one side should suit ½ inch dia. MDPE pipe and other side female threaded as per ISO17885 standard with pressure rating PN-16.

26. WATER METER

Serial numbers and labeling. The manufacturer's serial number shall be stamped on the main case of all meters. The serial number shall consist of all numeric digits.

Technical data. Proponent shall provide all manuals, diagrams, tolerance charts, exploded views, parts numbers, pricing, electronic diagrams, and any Materials Safety Data Sheets (MSDS) if applicable within thirty (30) days of the Notice to Proceed.

Tamper resistance. Where a meter is of split case manufacture it shall have 3/32" seal wire holes through two (2) aligned case bolts or one (1) 3/32" seal wire hole through both halves of case.

Accuracy. The meter product will meet or exceed meter accuracy of ±2% between the liters per minute (lpm) "minimum flow rate" to "maximum flow rate" for **Five (5) years** from date of installation. The meter shall also meet or exceed extended low-flow accuracy of ±5% from the following "extended low-flow rates" to the "minimum flow rate" for **Five (5) years** from date of installation as per ISO 4064 – 2014 or BIS 779:1994 latest revision.

External case bolts. Where a meter has external case bolts, cap bolts, washers, and nuts these shall be of sufficient strength for the purpose and must be of non-corrosive material designed for easy removal after long service.

Interchangeability. All meters of the same size or capability shall be manufactured so as to permit complete interchangeability of all parts.

Rejection. Water meters that do not meet the requirements of this specification shall be rejected by WATCO, the meters will be removed by the manufacturer at its own expense and replaced within the 7 days of the removal of meters from consumer premises.

Meter Type: The domestic type water meters from 15mm to 40mm sizes MID certified with MID No. duly printed on dial shall be magnetically coupled, Multijet, inferential type, dry dial, IP 68 protection, totalizer enclosed in metallic housing suitable against antifraud attempts, screwed ends.

Applicable Standards: Water meter shall confirm to ISO 4064:2014 with MID certification. MID certificate and FCRI Life cycle test certificate to be produced. Water meter should have certificate for the Model Approval as per the Indian legal Metrology Act 2009.

Detailed Description MultiJet water meter

The water meter and accessories shall be manufactured from materials of adequate strength and durability. The materials, which come in contact with the potable water, shall not create a toxic hazard, shall not support microbial growth, and shall not give rise to unpleasant taste or discoloration in the water supply. The meters shall be supplied complete with brass nuts and brass nipples, strainer & sealing.

The manufacturer shall provide specific details of materials used for various parts of the meter in particular to the material specified in technical specifications as below.

Meter Body-

- 26.1.1 The body of the meter shall be of either Brass or Bronze. The firm shall specifically mention in the offer; the metal used in manufacturing.
- 26.1.2 Material that come in contact with the water supply shall withstand 2 ppm (Parts per million) of chlorine residual in the water supply and shall be resistant to corrosion.
- 26.1.3 The lower case of the meter shall be painted with thermal painting externally. The painting materials should be safe for human uses and not affect human health.

Hydraulics- The measuring chamber and the turbine shall be made of Engineering plastic. The spindle and bearings inside the hydraulic chamber shall be made of polished stainless steel with hard metal tip/sapphire.

Magnet Shield- The pressure plate which separates the dry side and wet side of the meter must have provision to place magnetic shield of mild steel between the register and the pressure plate to avoid magnetic tampering.

Meter Cap-The Meter cap housing the totalizer shall be made engineering plastic with suitable locking arrangement so as not to allow easy tampering.

Seal- Meter will be provided with monolithic plastic seal with copper/SS wire or Rust proof

sealing wire. The seal or seal wire if broken will indicate tampering attempt.

The Totalizer and Totalizer Shield-

The Register shall be designed in such a way that if the Register protective transparent window is broken for a reason or another the Register cannot be removed from its place.

Totalizer-

- A] It shall be of straight reading type and shall register in cubic meter units
- B] The Totalizer reading shall be set to zero at the factory, except the volume registered while testing the meters at the factory.
- C] The Register shall consist of a row of at least 5 in-line consecutive digits to denote minimum reading of 99999KL. Another two digits or pointers shall register flows in litres and should be of a different colour.
- D] The totalizer should be of closed type. Closed Type means that even if meter is opened the rollers and gears of totalizer are protected in an enclosure can.
- E] The Totalizer must be suitable for test on an electronic test bench.
- F] The Totalizer shall be enclosed in metallic housing (ANTI CORROSIVE) suitable against antifraud attempts.
- G] The Totalizer should have IP 68 Ingress protection class supported by certificate from FCRI.

Flow Characteristics- The acceptable flow parameters required to measure low flows accurately as per ISO 4064:2014.

Meter should have minimum dynamic range of 100 (R 100).

Marking on Meter - The water meter shall be clearly and indelibly marked with the following information, either grouped or distributed on the casing, the indicating device dial, an identification plate, or on the meter cover if it is not detachable

- 26.2.1.1.1. Unit of measurement: cubic meter or Kilo liters
- 26.2.1.1.2. Value of Q_3 , Q_3/Q_1 , Q_2/Q_1 and the pressure loss class
- 26.2.1.1.3. Name or trademark of the manufacturer
- 26.2.1.1.4. Name of Customer – WATCO (With permanent embossing, no stickering)
- 26.2.1.1.5. Year of manufacture and serial number
- 26.2.1.1.6. Direction of flow on both sides of the body of meter
- 26.2.1.1.7. size of meter
- 26.2.1.1.8. Maximum admissible pressure
- 26.2.1.1.9. Letter V or H,
- 26.2.1.1.10. Temperature class,
- 26.2.1.1.11. CE and certificate No

Third-party Pre-shipment inspection at Manufacturer's place-

The Supplier shall before shipping provide details and approved the recognized independent Third-party Inspection Agency. The cost for pre-shipment inspection and tests to be borne by bidder witnessed by the TPI at his premises.

The TPI approved document to witness test by inspector shall include below minimum tests.

- Visual marking – as per tender specifications

- Accuracy testing as per ISO 4064:2014 – 3 Flows
- Pressure Tightness

Supply decision will be made after the Third-Party Inspector provide the independent Inspection Report to the Purchaser.

Testing of Supply Lot after deliver at Site

Each supplied lot will undergo lot acceptance testing at FCRI. The samples will be selected at random and acceptance criterion shall be as per the latest BIS 779:1994. Accuracy and pressure tests of these samples will be conducted at FCRI as per ISO 4064:2014.

Installation -Meter shall be either in vertical, horizontal or at angle as per site condition.

Water Supply - Present water supply in state of Odisha is intermittent, so the selected meter shall be suitable for the sudden change of pressure.

Head Loss – The maximum head loss at nominal flow rate shall not be more than 0.63 Bar as per ISO 4064:2014

The mechanical meter shall not observe air as reading and considering the present supply (Intermittent) the meter selected shall be provided with the air release valves wherever there is intermittent water supply with these meters and the quoted rate shall be inclusive of this provision also.

The manufacturer shall specify whether the meter is designed to measure reverse flow. If it is, the reverse flow volume shall either be subtracted from the indicated volume or shall be separately recorded.

Environmental temperature 0 degree C to 50 degree C or the T50 Class as per ISO 4064-2014 (0.1 to 50 degree C)

The ambient humidity range for water meters is 0 % to 100 % at 40 °C

The water meter shall be able to withstand the influence of abnormal velocity fields as defined in the test procedures in ISO 4064-3

Pressure Rating Minimum field pressure 16 Bar or Class MAP16 as per ISO 4064-2014

26.2 Warranty

All the supplied water meters their peripherals and equipment, etc., must have a written warranty from the manufacturer covering not less than 5 years from the date of installation.

Replacement Guarantee / Maintenance liability

All the installed smart water meters, their peripherals and equipment etc. will be subject to a defect liability period of 5 year beginning from the successful commissioning date. This means that if there is a malfunction or breakdown within the period the supplier will be responsible for making good the same by repair/ replacement at his cost.

Spare parts (For Mechanical Meters) and Spare Meters

The supplier / Manufacturer must keep 5 % of minimum spare meters at store of total supplied meters at any given time also must show prove that spares for all the supplied/installed items are available and that they will continue to be produced for the

next 5 years at the least. It will be preferable for the spares to be within the country, and full explanation given of their availability.

In case the spares are overseas, full contacts, i.e. email, website, postal address and office telephone must be given and tested for workability. The language of communication must be ENGLISH.

26.3 Weatherproof

The equipment to be supplied will be installed and used in unfavorable weather conditions, such as in water, very humid, exposed to any external conditions etc. it is therefore required to supply equipment with all units of build standard to IP 68.

26.4 Installation and Commissioning

After award and delivery, the manufacturer representative or Engineer shall support the installation and configuration of the meters at site with his plumbers or trained technician, then satisfy himself that the installation and configuration is okay, the supplier will in the presence of the WATCO representatives, go through and test every part of the system for proper functionality. There will be pre-agreed and WATCO approved sign-off forms on which to fill the test results.

The approval of the installation does not relieve the Manufacturer of defects thereafter in accordance to the contract.

Commissioning will involve the official startup of the normal operations of the meter. This will take place after successful testing. Commissioning should be done as soon as possible after installation of the meter. The replacement guarantee liability period of 5 years shall begin from the date of successful commissioning of consumer meter.

26.5 Site and Factory Visit

Prior to award, the WATCO may conduct a factory visit & site visit where the proposed solution has been implemented by the technically responsive manufacturer.

26.6 QUALITY CONTROL REQUIREMENT

Quality Control

The tenderer shall provide adequate supervision at all stages of supply of consumer water meters, support during installation and commissioning of meters (training to WATCO engineers / staff appointed Contractors / Plumbers in installation of water meters) etc. and shall examine all components for the stipulated requirement in this bid documents.

Installation at site

When the consumer water meter is delivered at Store / City, representative of the manufacturer and the representative(s) of the WATCO shall jointly carry out the acceptance tests at time of delivery. The acceptance tests must include the requirement as stipulated above. Random check of the consumer meter installations at site to verify that it is installed as per the manufacturer recommended manual / drawings. WATCO will ask the manufacturer from supplied meter to be tested at the FCRI at expenses of manufacturer as per provisions of relevant code.

26.7 COMMISSIONING

After the installation, the Consumer meter shall be at the WATCO's disposal for a trial period of 15 days. If the delivered Consumer meter performs in accordance with the specifications and without faults or malfunctions during this period, the consumer meter will be accepted. If not, the faults or malfunctions are to be rectified and a further trial period of 15 days is to be added to permit an additional attempt to meet the contract specifications. Maximum two attempts will be given to meet the contract specification. After two attempts if the Consumer meter is not found functioning/ performing properly as per the specification laid out in the tender, the WATCO may reject the Consumer meter. The decision of the WATCO in this regard shall be final and binding on the tenderer. The loss caused if any due to rejection shall be entirely borne by the tenderer. The tenderer shall return the amount paid to him along with interest @ 12% per annum. The WATCO shall in no case be responsible for any loss of damage that may occur to the rejected stores while these are in its premises.

After supply of the meter, WATCO will send the meters to FCRI for the testing purpose. If the manufacturers meters fail, the requirements defined in the IS for sample sizing and the criterion of acceptance for supply lot. If the meters fail, the requirements as defined in the BIS, the vendor / Manufacturer will be debarred from the future bidding for minimum of 5 years. The vendor / Manufacturer shall return the amount paid to him along with interest @ 12% per annum. The WATCO shall in no case be responsible for any loss of damage that may occur to the rejected meters and the manufacturer will not liable for any payment towards setup of other facilities as desired in the contract with supply of consumer meters.

After commissioning of the equipment/ instrument and completion of Delivery, the WATCO will issue a Delivery & Acceptance certificate as per the proforma devised after signing of the contract.

TECHNICAL SPECIFICATIONS FOR CUSTOMER METER INSTALLATION

1. Meter installation shall confirm to the following codes and standards.

- i. Installation manual of specific meter brand provided by the respective manufacturer
- ii. IS 9890:1981, Specifications for General Purpose Ball Valves
- iii. IS 15778: 2007 CPVC Pipes and Fittings
- iv. Uniform Illustrated Plumbing Code of India 2017
- v. Manual on Water Supply and Treatment, CPHEEO, Ministry of Urban Development, Government of India

2 METER ASSEMBLY INSTALLATIONS

Meter assemblies must be installed with the minimum clearance shown in the Figure 1. Meters must be located where than can be easily accessed and read by a meter reader. The meter assembly must be supported by a rigid and secure support. Where metal pipes are used this is sufficient. If plastic pipes are used additional support must be provided.

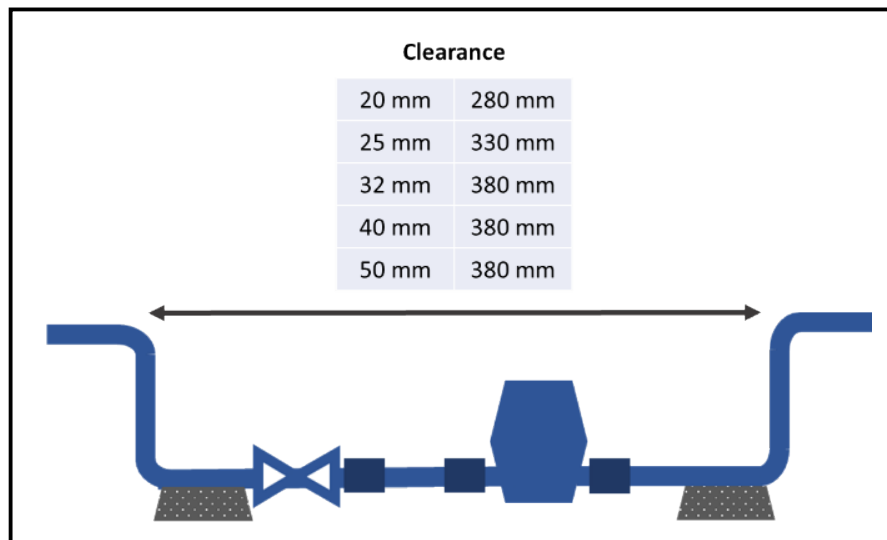


Figure 1 Meter Assembly

It is not always possible to install a meter assembly below ground, especially where meters are being retro fitted to existing connections. It is acceptable to use other forms of assemblies in these circumstances, such as above ground assemblies or enclosed assemblies. Regardless of which form of assembly is used the requirements for the installation of meters and meter assemblies contained in this manual apply.

3 LOCATION OF WATER METERS

Water meters are to be located as follows.

- a) Must be accessible for reading, maintenance and replacement
- b) Must not be in areas susceptible to ponding
- c) Must be horizontally mounted (or as specified by the manufacturer)
- d) Must be in position immediately downstream of the meter isolating valve

If a meter is located inside a building an isolating valve must be installed either side of the meter. If a meter is installed below ground it must be installed in a free draining meter box. Water meters that are installed in exposed locations such that they are subject to risk of must be protected by rigid clamping to the property wall or to a post. The standard meter sizes are 15mm and 20 mm.

The meter must be installed in a meter box on the service pipe, unless a prior approval is obtained from the Section Officer. If a meter is installed inside a building under a special approval, the location must be accessible to the meter reader, in the case of any servicing of the meter or inspection.

For meter installation and the meter box must be located at a minimum 1000mm inside the front property boundary wall and 600mm from left or right property boundary wall. Where the water main is within private property, in a right-of way, the meter or meter box should be placed outside the right-of-way. Also, an area at least 300 mm distance around the meter box should be free of major plants, shrubs, trees, objects, to facilitate the future

maintenance work of the meter installation. In all possible cases, the meter installation should be off driveway or parking areas.

When meter is installed in the utility room or elsewhere inside the building, the installation should be within reasonable distance of a floor drain. Under no circumstances a meter be installed in a bathroom or a bedroom. The area of 600 mm distance in front of the meter shall be free of obstruction, to allow for convenient reading and servicing of the meter. The meter installed-area should have a minimum headroom clearance of 2 metres. No electronic, electrical, mechanical, and water sensitive equipment or machinery should be placed or installed under the meter installation, or in an area where splash or flow from the meter settings or pipes could occur during the servicing of the meter.

Meters should be installed horizontally with register casings plumb, facing upward. When a meter is installed in a chamber, the meter should be centred as much as possible in the chamber. Unless otherwise specified by the manufacturer. Where possible, the minimum distance between the meter and the upstream gate valve should be equivalent to eight pipe diameters (8ϕ). Similarly, five pipe diameters (5ϕ) of straight run pipe is required downstream of the meter. The distance between the meter and the downstream check valve should not be smaller than five pipe diameters (5ϕ).

Meters, valves, and bypasses should be supported with appropriate pipe stands or clamps. Meter installations must be checked for leakage at completion of the installation. Assembly should be flushed and air must be eliminated from the system. By running water through the meter and performing a visual check of the low-flow indicator, the proper operation of the meter should be established.

For all temporary connections, meters must be installed at the upstream end of the connection.

1 WATER METER ASSEMBLIES

The Indian Standard BIS 779 sets out the required configuration for water meter assemblies. This configuration is shown in Figure 2.

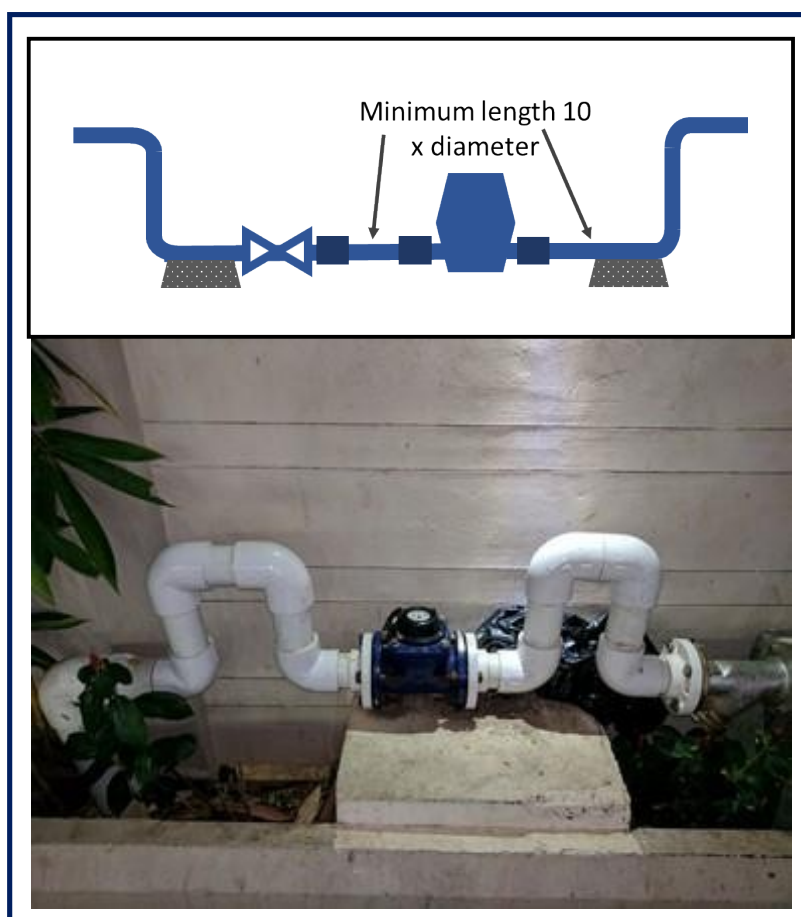


Figure 2 Standard Meter Assembly

It is particularly important to ensure the minimum lengths of pipe shown in Figure 2 are provided so that laminar flow is established through the meter. Field observations, even with newly installed meters, reveal that this requirement is rarely provided. Where this is the case the component of non-revenue water which is termed "meter inaccuracies and data errors" can expect to be large, even from day one¹.

Strainer

Where required, strainers should be installed immediately upstream of the meter using a flanged connection. Manufacturers specification can be adopted in terms of distance between the meter and the strainer. Strainers must be straight type and of the same size as the meter. Strainer mesh material should be corrosion-resistant (such as stainless steel). Strainer should have an effective straining area of at least twice the bore diameter of the meter.

Isolation Valves (Inlet and Outlet Valves)

Isolation valves must be provided, at specified distances, upstream and downstream of the meter assembly to facilitate the removal of meter and strainer cases without the wasteful flow of water. Valves should comply with the requirements stipulated in respective IS Codes.

27. DG set:

1)	Technical Data	
	SCOPE OF SUPPLY	Stationary type having a net electrical output of rated capacities as specified in BOQ at specified site conditions of 0 to 50' C ambient temperature and 100% relative humidity on FOR site basis.
2)	Equipment attached with DG	i) Diesel engine complete with all accessories.
		(ii) An alternator directly coupled to the engine through coupling, complete with all accessories.
		(iii) Automatic voltage regulator.
		(iv) Complete starting arrangement, including upto 125 KVA- one No./ above 125 KVA-2 Nos. of batteries & chargers.
		(v) Base frame, foundation bolts etc.
		(vi) Fuel tank of capacity. (as per CPWD Manual) a. 125 KVA to 200 KVA – Minimum 285 Litres b. 250 KVA to 320 KVA – Minimum 500 Litres c. 500 KVA to 750 KVA – Minimum 900 Litres
		(vii) Engine Cooling and lubrication system.
		(viii) Engine air filtering system.
		(ix) Exhaust silencer package.
		(x) Set of GI pipes, valves, strainers, unloading hose pipes as required for fuel transfer system from storage area to fuel tank including electrically driven fuel pump.
		(xi) All lubri at site. The fuel oil for first commissioning will also be provided by the contractor, consumable, touch up paints etc. for first filling, testing & commissioning contractor.
		(xii) AMF panel for control, metering and alarm.
		(xiii) Enclosure for silent type D.G. Set
3)	SCOPE OF SERVICE	(i) Design, manufacture, shop testing including assembly test.
		(ii) Despatch, transportation to site.
		(iii) Erection, testing & commissioning with all equipments/materials required for the purpose.
		(iv) Drawings, data, design calculations and printed erection, operation & maintenance manual.
		(v) Certification and compliance for meeting noise level & emission parameters and other requirements in accordance with latest Notification of MOEF.
4)	TECHNICAL REQUIREMENT	
	RATING OF DG SET	DG set net output after considering deration for engine and alternator separately due to temperature rise inside the enclosure and on account of power reduction due to auxiliaries shall be for different capacity DG sets as

		specified in BOQ, 1500RPM, 0.8Pf, 415V, 3 phase, 50Hz.DG sets shall also be rated for 110% of full load for 1 hour in every twelve hrs of continuous running.
	VOLTAGE VARIATION	(+) 5% of the set value provision shall exist to adjust the set value between 90% to 110% of nominal Generator voltage of 415V.
	FREQUENCY	50Hz±2%
	TEMPERATURE	The Diesel Generator and other auxiliary motor shall be of H class with temperature rise limited to Class-F for temperature rise consideration.
	NOISE LEVEL & EMISSION PARAMETERS	As per latest Notification of MOEF/ CPCB4
5)	PLANT DESIGN	
	DIESEL ENGINE	The engine shall comply with the IS 10002/BS 5514/11S0 3046; latest edition
		Diesel engine shall be turbo charged multicylinder V-type/ in line type with mechanical fuel injection system.
		The engine with all accessories shall be enclosed in a enclosure to make it work Silently (within permissible noise level) without any degradation in its performance,
		The Diesel Engines shall be directly air/water cooled. Cooling of water through radiator and fan as envisaged.
		The fuel used shall be High Speed Diesel oil (HSD) or Light Diesel Oil (LDO) as per IS:1460.
	AIR SUCTION & FILTRATION	Suction of air shall be from indoor for ventilation and exhaust flue gasses will be let out to outside atmosphere, Condensate traps shall be provided on the exhaust pipe.
		Filter shall be dry type air filter with replaceable elements.
	FUEL AND LUBRICATING OIL SYSTEM	The engine shall have closed loop lubricating system. No moving parts shall require lubrication by hand prior to the start of engine or while it is in operation.
	ENGINE STARTING SYSTEM	Automatic electric starting by DC starter motor shall be provided.
	FUEL INJECTION AND REGULATOR	The engine shall be fitted with electronic governor suitable for class A-I as per IS 10000.
		The engine shall be fitted with a heavy, dynamically balanced fly wheel suitable for constant speed governor duty.
	ALTERNATOR	The alternator shall comply with BS 2613/IS 4722/IEC 34; latest edition.
		The alternator shall be of continuously rated duty, suitable for 415 V, 3 phase, 50 Hz.
		Power development having brush-less, synchronous, self-excited, self-regulating system.
		The alternator shall be drip-proof, screen protected as per IP-23 degree of Protection.
		The rotor shall be dynamically balanced to minimize vibration.
		The alternator shall be fitted with shaft mounted

		centrifugal fan.
		It shall have the winding of class H but limited to Class-F for temperature rise consideration.
		The Alternator regulator shall be directly coupled to the engine and shall be complete with the excitation system, automatic voltage potentiometer and under/over speed protection. regulation of +/- 1%, voltage adjusting
		The alternator with all accessories shall be enclosed in a enclosure to make it work Silently (within permissible noise level)
	Terminal Box	Six (6) output terminals shall be provided in alternator terminal box. Terminals shall be Suitable for 1 No. of single core, XLPE cables per phase suitable to carry rated current of 125 KVA to 750 KVA DG set. The neutral shall be formed in AMF panel. The generator terminal box shall be suitable to house necessary cables and should be made of non-magnetic material.
	COUPLING	The engine and alternator shall be directly coupled by means of self-aligning flexible flange coupling to avoid misalignment.
		The coupling shall be provided with a protecting guard to avoid accidental contract.
	MOUNTING ARRANGEMENT	The engine and alternator shall be mounted on a common heavy duty, rigid fabricated steel base frame constructed from ISMC of suitable sections.
		Adequate number of anti-vibrations mounting pads shall be fixed on the common base frame on which the engine and the alternator shall be mounted to isolate the vibration from passing on to the common base frame or the foundation of the D.G. Set.
	AMF PANEL ARRANGEMENTS	a)Frequency meterb) 3 Nos. single phase CT's for meteringc) 3 Nos. (Provided by LT swgr manufacturer) single phase CT's with KPV 300V & RCT 0.25 ohm for differential protection of DG Set on neutral side only for 500 kVA.d) .One (1) DC Ammeter (0-40A)e) One (1) DC Voltmeter (0-30V)f) One (1) Voltmeter Selector switchg) One (1) AC Ammeterh) One (1) AC Voltmeteri) Three (3) Timers (24V DC)j) Two (2) Auto/Manual Selector Switchk) Two (2) Auto/test/Manual Selector Switchl) Eleven (11) Aux. Contactors suitable for 24V DCm) One (1), Motorised potentiometer for voltage adjustmentn) Two (2) Set Battery charger as specified in Technical Specificationo) One (1) Set Phase & Neutral busbars.p) Any other item required for completion of Control scheme shall be deemed to beincluded.
6)	PERIPHERALS	

	FUEL TANK	The Fuel tank of adequate capacity shall be provided on a suitably fabricated steel platform. The tank shall be complete with level indicator marked in litres, filling inlet with removable screen, an outlet, a drain plug, an air vent, an air breather and necessary piping. The tank shall be painted with oil resistant paint and shall be erected in accordance with Indian explosive act of 1932. Fuel tank shall be kept outside of enclosure. The fuel piping shall be carried out to connect the D.G set kept inside.
		For transferring fuel to Fuel tank transfer pump is envisaged. The capacity of transfer pump shall be adequate to fill the day tank in about 30 minutes. Fuel pump shall be electrically driven.
	BATTERY and BATTERY CHARGER	Two nos. 24V batteries complete with all leads, terminals and stand shall be provided. Each battery shall have sufficient capacity to give 10 nos. successive starting impulse to the diesel engine.
		The battery charger shall be complete with transformer, suitable rating (415 V/3.3 KV, 3 Ph., 50Hz. 1230V, 1Ph., 50 Hz) rectifier circuit, charge rate selector switch for "trickle"/"boost" charge, D.C. ammeter & voltmeter, annunciation panel for battery charge indication /loading / failures.
		The charger shall float and Boost Charge the battery as per recommendation of manufacturer of battery. The charger shall be able to charge a fully discharged battery to a state of full charge in 8 Hrs. with 25% spare capacity.
		Manual control for coarse and fine voltage variation shall be provided. Float charger shall have built-in load limiting features.
		Ripple shall not be more than 1%(r.m.s) to get smooth DC voltage shall be provided.
		Charger shall be provided with Out-put Voltmeter & Ammeter.
	CONTROL PANEL	One local AMF control panel alongwith each D.G. set shall be provided by the Supplier to accommodate these instruments, protective relays, indication lamps etc. The AMF Panel shall have IP-52 degree of Protection as per IS:12063.
		The D.G. sets shall be provided with automatic start facility to make it possible to take full load within 30 seconds of Power Supply failure.
		Testing facility for automatic operation of D.G. Set shall be provided in AMF panel.
		A three-attempt starting facility using two impulse timers and summation timer for engine shall be proved and if the voltage fails to develop within 40 sec. from receiving the first impulse, the set shall block and alarm to this effect shall be provided in the AMF panel.

		DG set shall be capable of being started! stopped manually from remote as well as local. (Remote START/STOP push button shall be provided in 415V ACDB). However, interlock shall be provided to prevent shutting down operation as long as D.G. Circuit breaker is closed.
	INSTRUMENTATION	a) Lub oil pressure gauge manual & eletronic for data transmission
		b) Water temperature thermometers manual & eletronic for data transmission
		c) Engine tachometer IHR (manual & eletronic for data transmission)
		d) Any other instruments necessary for DG Set operation shall be provided.
	SHUTDOWN SEQUENCE (DG shall commence a shutdown sequence whenever any conditions appear in the system)	a) Overspeed b) Overload c) High temperature of engine and cooling water. - d) High temperature inside enclosure e) Low lube oil pressure f) Generator differential protection g) Short circuit protection h) Under voltage i) Over voltage J) Further interlocking of breaker shall be provided to prevent parallel operation of DG set with normal station supply.
	Pilot indicating lamp	a) Mains ON b) Alternator ON c) Charger ON/OFF d) Breaker ON/OFF e) Main LT Supply ON/OFF
	VISUAL ANNUNCIATION	a) Engine overheating b) low oil pressure c) lack of fuel d) Set failed to start in 30 sees after receiving the first start impulse e) high cooling water temperature f) Low level in daily service fuel tank g) Overspeed trip h) Audio & visual Annunciation for alternator fault.
	DG. SET Enclosure	
	GENERAL REQUIREMENTS	Diesel engine, alternator, AMF panel, Batteries and Chargers shall be installed outdoor in a suitable weather-proof enclosure which shall be provided for protection from rain, sun, dust etc. Further, in addition to the weather proofing, acoustic enclosures shall also be provided such that the noise level of acoustic enclosure DG set shall meet the requirement of MOEF
		Fresh air intake for the Engine shall be available abundantly; without making the Engine to gasp for air intake.
		Engine and Alternator used inside the Enclosure shall carry their manufacturer's Warranty for their respective Models

			and this shall not degrade their performance.
			Exhaust from the Engine shall be let off through Silencer arrangement to keep the noise level within desired limits
			All the Controls for Operation of the D.G. Set shall be easily assessable. There should be provision for emergency shut down from outside the enclosure.
			Arrangement shall be made for housing the Battery set in a tray inside the Enclosure.
	CONSTRUCTION FEATURES:		The hard-ware and accessories shall be high tensile grade. Enclosure shall be given a lasting anti-rust treatment and finished with pleasant environment friendly paint. All the hardware and fixtures shall be rust proof and able to withstand the weather conditions.
			Doors shall be large sized for easy access and provided with long lasting gasket to make the enclosure sound proof.
	NEUTRALLBODY EARTHING		Points shall be available at two side of the enclosure with the help of flexible copper wires from alternator neutral, and electrical panel body respectively. The earthing point shall be isolated through insulator mounted on enclosure
7)	INSTALLATION ARRANGEMENT		
			DG set enclosed in enclosure shall be installed on Concrete Pedestal 300mm above FGL
			Construction of foundation for DG set and associated panels is in scope of supplier
	D G SET SHALL BE SUPPLIED WITH		
8)			i) D G Set test certificate
			(ii) Engine Operation & maintenance Manual.
			(iii) Engine Parts Catalogue.
			(iv) Alternator Operation, maintenance & Spare parts Manual.
			(v) Alternator test certificate
9)	TESTS		The Diesel generator sets shall be tested for routine and acceptance tests as per the relevant IS/IEC standards.
10)	COMMISSIONING CHECKS		
	LOAD TEST		The engine shall be given test run for a period of at least 6 hours. The necessary load to carry out the test shall be provided by the purchaser.
			During the load test, half hourly records of the following shall be taken:
			a) Ambient temperature.
			b) Exhaust temperature if exhaust thermometer is fitted.
			c) Cooling water temperature at a convenient point adjacent to the water output from the engine jacket.
			d) Lubricating oil temperature where oil cooler fitted.
			e) Lubricating oil pressure.

		1) Colour of exhaust gas
		g) Speed
		h) Voltage, wattage and current output. o Oil tank level
	INSULATION RESISTANCE TEST FOR ALTERNATOR	Insulation resistance in mega-ohms between the coils and the frame of the alternator when tested with a 500V megger shall not be less than $IR=2 \times (\text{rated voltage in KV}) + 1$
	CHECK OF FUEL CONSUMPTION	A check of the fuel consumption shall be made during the load run test. This test shall be conducted for the purpose of proper tuning of the engine.
	INSULATION RESISTANCE OF WIRING	Insulation resistance of control panel wiring shall be checked by 500V Megger . The IR shall not be less than one mega ohm.
	FUNCTIONAL TESTS	a) Functional tests on control panel.
		b) Functional test on starting provision on the engine.
		c) Functional tests on all Field devices.
		d) Functional tests on AVR and speed governor.
	MEASUREMENT OF VIBRATION	The vibration shall be measured at load as close to maximum achievable load and shall not exceed 250microns.
	NOISE LEVEL CHECK	as per relevant standard
PART I - GENERAL TECHNICAL REQUIREMENTS		
1.0 Composition		
The Diesel Generator Units (DG Unit) shall consist of the following;		
· Diesel Generator Set		
· Fuel Tank		
· Exhaust System		
· Outdoor Weather Protective and Sound Attenuating Enclosure		
· Automatic Transfer Switch (ATS)		
· External Fuel Tank		
The DG Unit shall be supplied as a complete pre-integrated and pre-assembled unit.		
2.0 Manufacture		
The DG Unit shall be internationally reputed make. DG units shall be supplied from original suppliers and locally assembled units are not acceptable.		
3.0 Service Conditions		
The DG unit shall be designed to be operated at following worse case conditions;		
Altitude		
Ambient temperatures – Outdoor:	Up to 1000 meters above sea-level	
Maximum outdoor	+550 C	
Maximum outdoor daily average	+400 C	
Maximum outdoor yearly average	+300 C	
Minimum outdoor	-100 C	
Highest one day variation	+250 C	
Relative Humidity:		

	Maximum	92%
	Minimum	12%
	Yearly average	44%
	PART II - PARTICULAR TECHNICAL REQUIREMENTS	
	5.0 Standards	
	The DG Units shall be designed, manufactured and tested in compliance with the latest versions of the following standards;	
	· IEC 60034	Rotating Electrical Machines
	· IEC 60085	Thermal Evaluation and Classification of Electrical Insulation
	· IEC 60529	Degrees of Protection provided by Enclosures (IP Code)
	· ISO 10816	Specification for Mechanical Performance: Vibration
	· ISO 3046	Specification for Reciprocating Internal Combustion Engines
	· SI 426	European Commission (dangerous substances)
	· CIMAC	Congress International des Machines a Combustion
	· ISO 9000	Quality assurance
	6.0 Ratings:	
	Required rated Prime Power Capacities (kVA) at an outdoor operating temperature of 55 deg is as follows.	
	15 KVA	
	Bidder should propose generator capacity (KVA) to obtain required prime KVA ratings of 15 KVA at the maximum outdoor operating temperature. Bidder should also provide calculations and reference graphs, etc, to confirm that the proposed generator is capable of providing the required prime KVA rating.	
	7.0 Performance	
	The DG sets shall be capable of delivering rated kVA indicated under item 6 at Prime Power under the service conditions specified in section 3.0.	
	Voltage regulation: ± 0.5 %	
	Frequency regulation: Random frequency variation with any steady load from no load to full load shall not exceed ± 0.25 %.	
	8.0 Diesel Engine	
	The diesel engine shall comply with the specified International IEC Standards or an equivalent international standard and shall be of the four-stroke, multi-cylinder, water-cooled, cold start, direct fuel injection, compression ignition, and preferably turbo-charged type. The crankshaft speed shall not exceed 1500 r.p.m.	
	Speed Governor:	
	The diesel engine shall be fitted with a speed governor capable of accuracy to Class A2 of ISO 3046/IV. The governor is to be fitted with speed control facilities to enable the engine speed to be adjusted from the local control panel.	
	Shutdown System:	
	The engine shall be fitted with a mechanically operated device which will shut off the fuel supply to engine when any of the specified alarm conditions occur.	
	Cooling System:	
	The cooling system shall be filled with chemically treated water mixture by the equipment supplier. Rotating parts shall be guarded against accidental contact in accordance with standard requirements.	

	A vertical fan cooled sectional radiator, rated for the tropical site conditions shall be mounted at the end of the combined under base and driven from the diesel engine. The radiator shall be arranged to cool the engine jacket water and lubricating oil. The radiator must be generously sized to permit operation at full load and overload in the specified ambient conditions. The radiator shall be integral with the generating set. The radiator shall be provided complete with fan claw and guards.
	Pumps:
	Cooling water, lubricating and fuel oil pressurizing pumps shall be provided and mounted on the engine and shall be gear driven from the crankshaft.
	Lubrication:
	Lubrication shall be by means of an engine-driven gear pump and the system shall include full flow oil filters with replaceable elements.
	Safety Guards:
	All moving parts shall be adequately guarded, in order to prevent danger to personnel.
	Fuel:
	The engine shall be designed for operation on diesel fuel.
	Lubricating and Fuel Oil Filters:
	The lubricating and fuel oil filters shall be of the fuel flow type.
	Air Filters:
	Air filters shall be suitable for use in the environmental conditions which are likely to arise locally and the service conditions described in Part 1.
	Starting System:
	The set shall be supplied with a completely self-contained starting system consisting of an engine driven dynamo, a lead acid battery and battery charger.
	The starting system shall be designed such that at engine speeds in excess of the minimum firing speed it shall be impossible to complete the starting circuit. The starting system shall preclude excessive consecutive starting attempts.
	Exhaust System:
	The engine shall be efficiently silenced and be complete with primary and terminal silencer arrangement
	9.0 Alternator
	The alternator shall be synchronous, four pole and brushless excitation type and shall comply with the relevant requirements of Specification IEC 60034 or an equivalent international standard.
	The alternator shall be designed for operation of 10% engine overload at any power factor between unity and rated power factor for a maximum period of one hour in any 12-hour period as permitted by ISO 3046/II.
	The alternator shall be rated for IP-23 protection. The insulation of the winding shall be class H. All winding shall be tropicalized and suitably impregnated to withstand the site ambient conditions.
	The alternator shall be complete with all necessary cooling fans, excitation and voltage regulating equipment. The alternator shall be capable of maintaining its continuous maximum rated output when operating within + 5% of rated voltage and at rated power factor.
	The alternator shall be brushless rotating field, self-exciting and self-regulating type complete with permanent magnets and fully connected damper windings. The stator winding shall be star-connected and shall be brought out together with the neutral point to terminals located in a sheet steel box mounted on top of the generator to facilitate connection of a power cable of suitable capacity.

	The following protection shall be provided for the alternator:
	a. Over Current Protection
	b. Earth Fault Protection.
	10.0 Automatic Transfer Switch (ATS)
	The ATS shall comply with IEC 60947 or equivalent international standard. The separately mounted generator control cubicle and ATS panel shall be of sheet steel vermin proof with lockable hinged front doors.
	A Four pole circuit breaker and auto transfer switch should be provided rated for full load of the current (+ 10% overload).
	The ATS equipment shall be of 3 attempt type and capable of sensing single phase and three phase failure of main supply or any variation in main supply voltage. The main supply and generator supply contactors or Solenoid/Motor operated change over switch shall be of fool proof design with mechanical and electrical interlock.
	11.0 Mounting
	Complete unit to be mounted on robust skid frame. Vibration mountings to be used where required.
	Skid frame to be dimensioned to accommodate generator/alternator assembly, all accessories, sound proof canopy. Skid frame to be of rigid construction suitable for locating on level ground surfaces ranging from compacted earth, crushed rock or a concrete pad.
	12.0 Fuel Tanks
	Built-in Fuel Tank: A minimum capacity of not less than 8-10 hours full running time built in fuel tank shall be provided. Design shall be capable of preventing accidental spilling of fuel and hand pump feeding on emergencies is possible.
	13 External Fuel Tank
	13.1 General
	13.2 Tank Construction
	The tank shall be manufactured from carbon steel with thickness as U.L. Standard 142.
	The tank shall be externally coated with 2 layers of coatings. The prime layer using Red Oxide paint and the top layer using water proof plastic layer.
	Tank shall comply with the normal and emergency venting requirements NFPA 30.
	Tank shall carry a ten (10) years warranty including materials and workmanship.
	Fuel tank to have, lowest point drain facility for water and sludge, fuel level gauge direct mounted or remote electric, filler pipe and locking cap.
	13.3 Accessories
	The tank shall be manufactured to support the following accessory equipment and shall be provided with suitably located lifting lugs: indicator shall be made of plastic pipe connected through suitable valves and approved by the supervising engineer. lockable cap for inspection and manual gauging of fuel level. Gauge port shall be accessible from steps or ladder. minimize the oil spilling during tank filling operation. pipe to prevent the increase of gas pressure inside the tank. The vent opening should be covered with a wire mesh to prevent anything from entering and blocking the vent. .10, Schedule 40 Black steel supply pipe connection with a stainless steel two – piece body, stainless steel ball, Teflon seats and stuffing box ring, lever handle and balancing stops, threaded ends with union Ball Valve. shall be provided with a suitable sized ASME B36.10, Schedule 40 Black Steel Drain pipe connection with a Carbon Steel, Stainless ball, with Viton seals Spill Sump Drain Valve. adder. Steps and ladder shall be of welded steel construction with prime and finish paint of industrial enamel, and shall be designed to conform to OSHA requirements.
	13.4 Fuel Distribution Pipe and Pipe Fittings
	The design criteria shall conform to the following minimum requirements:

	Steel Pipe: ASME B36.10, Schedule 40 Black Steel Fittings:
	ASTM B16.3, 300 lb. Threaded malleable iron, or ASTM A234, forged steel welding type. Finish: Prime and finish paint with industrial enamel.
	13.5 Drawings
	The contractor should submit design (shop) drawings for the tank and fuel pipe distribution, location of fittings and accessories with specific dimensions, for approval by PHEO prior to product fabrication.
	13.6 Test
	The tank shall withstand an internal air pressure test of 3-5 psi.
	13.7 Welding
	Welding shall be carried out in accordance with an approved standard or code of practice. The welding plants and processes used shall be suitable to the materials, configurations and purposes of the welded parts.
	Only qualified welders, certified for the type of welding required, shall be employed. The Contractor shall exercise strict control over the welding conditions and parameters and shall continuously monitor the standard of welding achieved in accordance with the requirements of the Clause on Quality Control and Quality Assurance.
	13.8 CONCRETE FOUNDATION / PAD DRAWINGS
	Detailed drawings of the concrete/pad foundations required for mounting/installation of all equipment shall be provided with all necessary details within three (03) weeks of award of contract.
	14.0 Detailed drawings of the concrete/pad foundations required for mounting/installation of generators shall be provided with all necessary details within three (03) weeks of award of contract.
	15.0 Outdoor Weather Protective Sound Attenuating Enclosure
	The generator set shall be provided with a sound attenuated housing which allows the generator set to operate at full rated load in the ambient conditions. The enclosure shall reduce the sound level of the generator set while operating at full rated load to below 95 dBA at 1 meter from the generator set. Housing configuration and materials used may be of any suitable design which meets application needs, except that acoustic materials used shall be oil and water resistant. No foam materials shall be used.
	The enclosure shall include hinged doors for access to both sides of the engine and alternator, and the control equipment. A panel viewing window shall be provided. Key locking door latches shall be provided for all doors. Door hinges shall be stainless steel.
	The enclosure shall be provided with an exhaust silencer, which is mounted outside of the enclosure, and allows the generator set package to meet specified sound level requirements. Silencer and exhaust shall include a rain cap and rain shield.
	16.0 Fire detection
	Diesel generators housing shall have fire detection system suitable for use in an area containing diesel fuel. The fire detection system shall cut off the fuel supply from the tank in the event of a fire. The fire detection system shall operate an alarm system. The system shall meet the requirements of Iraqi fire regulations.
	17.0 Programme of work
	The supplier shall submit a detailed programme covering the design, manufacture and testing of the diesel generators within two (2) weeks of receipt of the contract award. The reports shall subsequently be submitted on monthly basis, outlining progress and, if necessary, explaining deviations from the programme.
	18.0 Type tests
	Type test reports/certificates of generators need to be submitted with the bid.
	Type tests shall be carried out at an independent laboratory or witnessed by a representative of

	such laboratory.	
	19.0 Testing at manufacture's works	
	The complete diesel generator sets shall be subjected to routing tests as per the standards specified, at the manufacturer's Works to verify that its performance is in accordance with the specifications.	
	The supplier shall submit full details of the methods of testing including connection diagrams for approval at least one (1) month before testing.	
	The supplier shall give a minimum of six (6) weeks' notice that the generators are ready for testing.	
	All costs in connection with the testing shall be borne by the supplier who shall provide UNDP with all the facilities free of charge.	
	The UNDP may nominate representative to witness the factory tests. Certified copies of test reports shall be provided for each unit.	
	20.0 Other requirements	
	(a) Generator set shall have the following facility.	
	Forklift Pockets within Base Frame (up to 350 kW)	
	(b) The control panel shall have the following provisions for the control of DG Set:	
	· Master engine control which for OFF/AUTO/MANUAL/TEST with a facility for starting and stopping of the set.	
	· Selectable Multifunction meter	
	· Engine control monitor.	
	· Alternator voltage monitor.	
	· Engine hours run counter.	
	· Voltmeter and Ammeter	
	· Combined frequency and tachometer	
	(c) The diesel generator shall automatically shut down under following conditions.	
	· Low Oil Pressure	
	· High Engine Temperature	
	· Low Fuel Level	
	· Over/Under Speed	
	· Battery Charge Fail	
	(d) Earthing studs need to be provided.	
	21.0 Warranty-	
	Warranty period shall be one year /1000 hours operation whichever occurs first	
	DATA SHEET SYNCHRONISING AUTO START LOAD SHARE CONTROL MODULE DSE8610 MKII	
	Make	DSE Gen set
	Type	Synchronising Auto Start Control Module
	Control Module Specification	Suitable for use in a multi-generator load share system, designed to synchronise up to 32 generators including electronic and non-electronic engines. It monitors the generator and indicates operational status and fault conditions, automatically starting or stopping the engine on load demand or fault condition

	KEY LOAD SHARE FEATURES:	• Peak lopping/sharing (with appropriate DSE mains controller) • Sequential set start • Manual voltage/frequency adjustment • R.O.C.O.F. and vector shift protection • Generator load demand • Automatic hours run balancing • Mains (Utility) decoupling • Mains (Utility) decoupling test mode • Dead bus sensing• Bus failure detection • Direct governor and AVR control • Volts and frequency matching • kW and kvar load sharing • Dead bus synchronising
	Configuration	• Peak lopping/sharing (with appropriate DSE mains controller) • Sequential set start • Manual voltage/frequency adjustment • R.O.C.O.F. and vector shift protection • Generator load demand • Automatic hours run balancing • Mains (Utility) decoupling • Mains (Utility) decoupling test mode • Dead bus sensing • Bus failure detection • Direct governor and AVR control • Volts and frequency matching • kW and kvar load sharing • Dead bus synchronising
2)	ENVIRONMENTAL TESTING STANDARDS	
	ELECTRO-MAGNETIC COMPATIBILITY	BS EN 61000-6-2 EMC Generic Immunity Standard for the Industrial Environment
		BS EN 61000-6-4 EMC Generic Emission Standard for the Industrial Environment
	ELECTRICAL SAFETY	BS EN 60950 Safety of Information Technology Equipment, including Electrical Business Equipment
	TEMPERATURE	BS EN 60068-2-1 Ab/Ae Cold Test -30 oC BS EN 60068-2-2 Bb/Be Dry Heat +70 oC
	VIBRATION	BS EN 60068-2-6 Ten sweeps in each of three major axes 5 Hz to 8 Hz at +/- 7.5 mm, 8Hz to 500 Hz at 2 gn
	HUMIDITY	BS EN 60068-2-30 Db Damp Heat Cyclic 20/55 oC at 95% RH 48 Hours BS EN 60068-2-78 Cab Damp Heat Static 40 oC at 93% RH 48 Hours
	SHOCK	BS EN 60068-2-27 Three shocks in each of three major axes 15 gn in 11 mS
	DEGREES OF PROTECTION	BS EN 60529

	PROVIDED BY ENCLOSURES	IP65 - Front of module when installed into the control panel with the supplied sealing gasket.
	• Real time clock • Manual and automatic fuel pump control • Engine run-time scheduler • Fuel usage monitor and low fuel level alarms • Simultaneous use of all communication ports • Remote SCADA monitoring via various DSE software applications • MODBUS RTU & TCP support with configurable MODBUS pages for integration into building management systems (BMS) • Advanced SMS messaging (additional external modem required) • Start & stop capability via SMS messaging • 3 configurable maintenance alarms • Compatible with a wide range of CAN engines, including tier 4 engine support • Uses DSE Configuration Suite PC Software for simplified configuration • Power modes for when in parallel with the mains • Redundant MSC communication wired to CAN ports • True manual breaker control when in CAN mode • Water in fuel digital input • Fuel tank bund alarm digital input • Separate ramp up and ramp down rates configurable via PLC • Configurable CAN message time- outs • In-built SNMP • Configurable CAN transmit & receive • Battery chargers on DSENet • Compatible in load share systems containing DSE5500, DSE7500, DSE8000 and DSE8600 MKII series. Contact DSE for further details • 132 x 64-pixel ratio display for clarity • Real-time clock provides accurate event logging • Ethernet communication, provides built in advanced remote monitoring.	
3)	KEY BENEFITS • Can be integrated into building management systems (BMS) and programmable logic control (PLC) • Increased input and output expansion capability via DSENet® • Licence-free PC software • IP65 rating (with supplied gasket) offers increased resistance to water ingress • Advanced Internal PLC editor allows user configurable functions to meet specific application requirements.	
4)	EXPANSION DEVICES • DSE124 CAN/MSD Extender • DSE2130 Input Expansion Module • DSE2131 Ratio-metric Input Expansion Module • DSE2133 RTD & Thermo-couple Expansion Module • DSE2152 Ratio-metric Output Expansion Module • DSE2157 Output Expansion Module	
5	Proper Earthing to D.G sets including cost of materials metal strips, G.I pipes, chemicals, cutting & welding and testing at site.	

	Specifications: Supply, Installation & Testing of Earth electrode along with copper plate, Interconnecting copper strips and accessories including excavation of earth pit, filling with charcoal and salt, back filling, providing necessary brickwork, connections, including all labour and materials as per Engineer in-charge. Supply, unloading, handling, installation, testing, Commissioning Over of Copper plate of size 600mmX600mmX6mm. ata depth of 6000mm in an earth pit of 700 x 700 x 2500 mm field with 100kg salt and charcoal mixed with sand in alternate layers 150mm. each up to a hight of 6000mm from bottom. The pipe shall have provision for watering through a funnel. it shall also have provision for connecting 25x6mm. copper flat on two sides. A masonry structure shall be constructed to a depth of 750mm. and with 450 x 450 mm (clear) Chamber, a heavy-duty Cast-iron cover (10kg) complete shall be used to cover the pit. Excavation, backfilling, removal of excess soil is included in the scope complete as per technical specifications, drawings, relevant standards & site conditions.
6	Supply all materials, labours and T & P for construction of Plinth for D.G sets, Fencing with M.S Grills and making shade over the D.G sets etc all complete. (detail estimate attached)
7	Electrical inspection by Govt. electrical inspector for Approval.
8	Supply of Mandatory Spares-Air Filter, Diesel Filter, Controller, self-starter, battery charger, charging alternator, AVR, Diode assembly, flexible pipe, fan belt to dept. during supply etc.
9	Supply of 3phase energy meter with its units including all accessories, installation, commissioning and testing at site.

LIST OF APPROVED MANUFATURES FOR SILENT DG SET FOR INDUSTRIAL USE:

1. Mahindra Power
2. Kirloskar
3. Ashok Leyland
4. Sterling
5. Jackson
6. Cumin Powers
7. Greaves Cotton
8. Greaves
9. TMTL
10. Captiva

N.B.: - In addition to the above in case of any absence of approved make in the list mentioned above the bidder is to propose and obtain approval of proposed venders from the authority before purchase of the material.

COMPLETION CERTIFICATE AND GUARANTEE

After the complete testing the Vendor shall furnish the certificate confirming that the installation has been fully completed and as is in conformity with the technical specification BOQ and all requirements of local Authorities and Statutory Bodies. Maintenance of DG Set, as per schedule, should be strictly carried out to avail warranty. Vendor shall guarantee that the equipment/product offered shall satisfy the requirements of its intended use and be free from latent defects. Vendor shall repair and replace any equipment, which proves to be defective within 12 months from the date of

commissioning and handing over the installation. If any defect is noticed during the guarantee period it shall be rectified /replaced at no extra cost. The guarantee period will again commence from the date of such rectifications / replacement.

The Bidder shall furnish the following documents:

- (a) Written commitment from manufacturer of the Silent Diesel Generator sets with AMF panel.
- (b) Written back-up guarantee letter obtained from both the Manufacturer of the Silent Diesel Generator with different capacity.
- (c) Manufacturers Test Certificated, Guarantee/Warranty & other relevant documents for each DG sets.

Declaration letter of Manufacturer of the DG sets or their Authorized Firms that they shall be present at site during installation, testing for successful; commissioning & safe operation of the DG sets.

28. Supply of PLC Indoor panel Made out of 2 MM C.R sheet of size (800mm x 600mm x1800mm floor mounted)powdered coated 7 tank process with following component i.e,CPU should have 1 MB program memory with extended memory slot,Redundant-24VDC,SMPS 10Amp along with 24V DC SPD,IO count as DI-16,DO-20,AI-20,AO-08 & MODBUS-10 subsystem shall be same series as CPU,7inch Panel Mounted HMI,Modem should have support MQTT Protocol by default, 24volt DC Industrial switch with minimum 6 ethernet, 4 SFP Port each AI shall be equipped with suitable signal isolator of 20Nos & surge protection device 20nos LIU Isolater, 230Volt AC /230volt AC torroidal transfermer,1KVA 230V AC UPS should have capacity to charge 3 nos 12 VDC 65 AH Battery Bank,DP MCB of Adequate current capacity,Led tube light 10inch 5 watt,door limit switch,Fan 6" with louver,4sqmm straight through terminal & fuse terminal 90 nos ,earthing plate.The Approved Make :
(PLC- as per BoQ) including cost of material with all taxes transportation to Site/Storage with insurance.
29. Supply, Installation, Testing and commissioning of Chlorine Dosing machine including laying of PVC pipe interconnection with main waterline, Chemical storage and handling equipment etc. 0-500 Lph Zeroleakge pneumatic diaphragm dosing pump - 2nos, one primary and one standby mode, pressure upto-10bar, 1000 Ltr Chemical tank capacity. Agitator motor - 1nos, strainer, NRV on Pump Outlet, electrically actuate Flow control Valve with PLC compatible VFD Panel for dosing pump and agitator etc. transportation & packaging including cost of materials, all labours, T&P etc. all complete as per the direction of Engineer-in-charge.
30. Supply, Installation ,testing & commissioning of WATER Quality monitor for Residual Chlorine in distribution network, the Input Power Supply should be internal battery (2 of LSH 20 3.6V High Discharge Lithium Battery with Communication and Data Logging through GPRS Modem, Website, RS232 link to PC,RS232 link to Bluetooth dongle to mobile Device ,Storage of up to 55000 data points in the device and having Electrical Connections 1X 9Way Fischer Socket Yellow (102)Style for RS 232/Bluetooth dongle, 1X 5Way Fischer Socket (103)Style for Chlorine Sensor, 1X 9Way Fischer Socket red (102)Style for External Device, 1X 7Way Fischer Socket Grey (102)Style for External Device having Environmental protection IP68 to 1m the analyser is designed to fit

within Standard Hydrant Chamber with Minimum of 300mm between the Hydrant outlet to the underside of the Chamber lid-150mm(w) x 164mm(h) Weight including laying of connecting uPVC pipe Sch-80 & power supply arrangements etc. complete as per requirement & direction of Engineer in Charge. (Make- as per BoQ)

Note:

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.

1. 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

(A) Payment Break-Up Schedule for Pump Sets, VFD Control Panels, PLC System, Actuator Valves, Electric Operated Electromagnetic Flow Meter

(To be procured after approval of QAP & permission from Authority)

Sl.No.	Description of item (payment after completion of item)	Percentage breakup of Price Bid.
1	On Supply of materials with all original test/ guarantee certificates & other required documents	70%
2	On Completion of Installation, Testing & Commissioning	30%

(B) Payment Break-Up Schedule of Elevated Storage Reservoir (ESR)

Sl.No.	Description of item (payment after completion of item).	Percentage breakup of Price Bid.
1	On submission and final approval of design & drawing	1%
2	On completion of foundation & base slab casting	20%
3	On casting of 50% of staging height.	15%
4	On casting of 100% of staging height.	15%
5	On completion of Conical slab, container wall & top dome.	20%
6	On completion of Piping arrangement with valves to ESR.	9%
7	On completion of all finishing work including fitting & fixing of S/S ladder, water level indicator lightening arrestor etc.	10%
8	On completion of Testing, Commissioning & As built Drawing	10%

SCHEDULE – A
STRUCTURE & ORGANISATION

1. General Information

a) Name of Applicant

b) Head Office Address

e-Mail Address:

Telephone No.

Fax:

Mobile Phone No.

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

2. STAFF PROPOSED FOR EXECUTION OF THE WORKS

a) Office

Name(s)	Educational qualification	Designation	Relevant Experience	Remarks

b) Key Engineering Personnel to be deployed at the site

Sl. No.	Name of Engineering Personnel to be deployed	Educational qualification	Experience	Remark
1.				
2.				
3.				
4.				
5.				

Note: BIO-DATA of each personnel shall be attached related with the proposed site.

A summary of the work experience of each key staff shall be attached.

SCHEDULE – B

FINANCIAL STATEMENT

[To be given separately for each constituent Firm]

Financial statement shall be audited for five years by Regd. Chartered Accountant or competent financial organization / authority. The audit certificate should be included with the document.

- 1) Name of Applicant:
- 2) Total annual turnover & Annual turnover in **Construction Works**, undertaken for each of the last five financial years.

(Rs. In lakh)

FINANCIAL YEAR	Home		Abroad		Total	
	Total Turnover	Turnover in Const. Works	Total Turnover	Turnover in Const. Works	Total Turnover	Turnover in Const. Works
2025-26						
2024-25						
2023-24						
2022-23						
2021-22						

3. Applicant's specific financial arrangements (mention amount in Indian Rupees)
 - a) Own Resources
 - b) Bank Credits
 - c) Others (specify)
4. Credit Facilities :
To be supported by certificate for the Bank in **Scheduled 'H'**.

SCHEDULE – C

LIST OF TOOLS, PLANT & EQUIPMENT

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

Sl. No.	List of plants & equipments	Minimum Requirement	Owned	Leased / Hired	Remarks
			Nos. / qnty	Nos. / qnty	
1	2	3	4	5	6
1.	Concrete Hopper Mixer (tilting hopper type)	2 Nos.			
2.	Plate / Skid Vibrator	2 Nos.			
3.	Needle Vibrator	2 Nos.			
4.	Water Tank	2 Nos.			
5.	Levelling instrument	1 No			
6.	Dewatering Pump set from 5 to 20 HP capacity	1 No.			
7.	Steel shuttering plates (600 x 1200mm) with steel scaffoldings	100 Sqm.			
8.	Transportation trolley	2 Nos.			

SCHEDULE – D
WORK EXPERIENCE

1. Name of the firm:
2. Total number of years of experience in **construction work**:
3. List of the similar works executed during last 5 years. (Rs. in lakh)

Sl. No.	Name of the work/ location Agmt. No. & Dt.	Name of the employer	Value of Contract price	Total Value of work executed	Financial year-wise Computed amount	Stipulated date of commencement	Stipulated date of completion	Actual date of completion	Reasons for delay	Remarks
1	2	3	4	5	6	7	8	9	10	11

NB: Certification of the employer not below the rank of General Manager/equivalent is to be furnished in support of the above claim.

4. Approximate value of existing commitment and ongoing works (Applicable where the amount put to tender is more than 3.00 crore):

(Rs. in lakh)

Description of work	Place	Name of employer	Contract No	Contract value	Stipulated period of completion (indicate date of commencement & completion)	Balance value of work to be executed	Remarks
1	2	3	4	5	6	7	8

NB: Certification by the engineer in charge not below the rank General Manager/equivalent in support of the above claim should be furnished. Certificate from Chattered Accountant with verifiable UDIN/Self declaration by the bidder in shape of affidavit shall also be accepted. Non-disclosure sou-moto/hiding of any information if detected later will result in disqualification of the firm.

5. Bid Capacity Calculation (Refer clause 32.3 of Section 2 (B) of DTCN).

A = Maximum value of works executed in any one year during the

last five years (updated to the current price level) = Rs. _____ lakhs.

B= Value of current price level of the existing commitments

and ongoing works to be completed during the next years = Rs. _____lakhs

N= Number of years prescribed for completion of the works for which the bids are invited = 2.0

Assessed Available Bid Capacity = $(A \times N \times 2 - B) \geq$ Amount put to tender in Lakh

6. Works for which bid already submitted but not finalized.

(Rs. in lakh)

Description of work	Place of work	Name & address of employer	Estimated cost of work	Offer valued by the bidder	Stipulated period of completion	Date on which decision expected.	Remarks
1	2	3	4	5	6	7	8

Note: - a) Certificate from the employers not below the rank of General Manager or equivalent may be attached

SCHEDULE –E

**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.

SCHEDULE – F

(Applicable where the proposed works covers Electrical Items of works only)

1. The contractor shall have appropriate class of electrical license for External & Internal Electrical Works.
2. If not, collaboration with contractor having Electrical license of equivalent capacity issued by licensing authority is to be furnished.

SCHEDULE – G

AFFIDAVITS / DECLARATION

1. I/We have read the instructions appended in the DTCN.
2. I/We agree that the decision of the Govt. of Odisha in selection of contractors will be final and binding upon me/us.
3. All the information furnished herewith are correct to the best of my/our knowledge and belief. In case of any information or documents furnished found to be false or incorrect, I / we have no objection if my / our tender is rejected.
4. I/We agree that I/We have no objection if inquiries are made about construction work and its related areas regarding all projects and works listed by us in the accompanying sheets or any other enquiry on information furnished herewith in the accompanying sheets.
5. I/We agreed that I/We have no objection if our past construction works are inspected by any authority of Govt. of Odisha to assess the quality of construction.

Date:

Place:

Signature
Name & Designation
Name of the organisation

SCHEDULE – H

(Refer: Schedule "B" Item – 4)

FORM OF SOLVENCY CERTIFICATE FROM A SCHEDULE BANK

This is to certify that to the best of our knowledge and information M/s./Sri
..... having marginally noted address a
customer of our bank and are/is respectable and can be treated as good for any engagement
upto a limit of Rs. (10% of Amount put to
tender)..... (Rupees
.....)

Signature

For the Bank

Note: In case of partnership firm, certify names of all partners as recorded with the Bank.

SCHEDULE – I

ANY OTHER INFORMATION, IF ANY

SCHEDULE – J

Format for Seeking Clarification
(to be furnished in both MS Word/Excel & PDF Format)

Name of the Firm with e-mail & Mobile No.: _____

Sl. No.	Reference to DTCN/ Clause/ Page	Existing Description & Subject	Clarification Sought	Remarks
1	2	3	4	5

SCHEDULE – K

FORM OF BANK GUARANTEE [Additional Performance Security]

To
The General Manager,
WATCO Division-I, Bhubaneswar.

WHEREAS:

- (A) _____ [name and address of contractor]
(hereinafter called the “**Contractor**”) has executed an agreement (hereinafter called the “Agreement”) with the [General Manager, WATCO Division-I, Bhubaneswar, representing Managing Director, WATCO, Bhubaneswar], (hereinafter called the “**Authority**”) for the construction of the work “**Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years**” subject to and in accordance with the provisions of the Agreement.
- (B) The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Construction Period & Defects Liability Period} (as defined in the Agreement) in a sum of Rs. _____ Lakh (Rupees _____ Lakh) (the “**Guarantee Amount**”).
- (C) We, _____ through our branch at _____ (the “Bank”) have agreed to furnish this bank guarantee (hereinafter called the “Guarantee”) by way of Additional Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor’s obligations during the {Construction Period & Defects Liability Period} under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the

Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of [General Manager, WATCO Division-I, Bhubaneswar], that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the

liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on ****\$. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a

\$ Insert date being 18 (Eighteen) Months from the date of issuance of this Guarantee (in accordance with Clause 23.4 of the Section 2(B) & Clause 6.22 of Section 6).

certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until the Authority pursuant to the provisions of the Agreement releases it earlier.

Signed and sealed this _____ day of _____, 20____ at _____.

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.
- (iii) The stamp papers of appropriate value shall be purchased in the name of bank who issues the "Bank Guarantee".
- (iv) The bank guarantee shall be from a Nationalised/ Scheduled Indian Bank with **counter guaranteed** by its branch at **Bhubaneswar**.

SCHEDULE - L
(See Clause 6.15 of DTCN)

PROJECT COMPLETION SCHEDULE

[In order to closely monitor the execution of the project and to ensure quality, cost and time of the project are not compromised in any manner, the contractor shall provide bar chart & PERT Chart in such a realistic manner so that there will be balance between financial & physical progress with reference to cost & completion time.]

1 Project Completion Schedule

During Construction period, the Contractor shall comply with the requirements set forth in this **Schedule-L** for each of the Project Milestones and the Scheduled Completion Date. Soon after the date of each Project Milestone, the Contractor shall notify the Authority of such compliance along with necessary particulars thereof.

2 Project Milestone-I

- 2.1 Project Milestone-I shall occur on the date falling on the $\frac{1}{4}$ of the Whole Time allowed from the Commencement Date (the “**Project Milestone-I**”).
- 2.2 Prior to the occurrence of Project Milestone-I, the Contractor shall have commenced construction of the Water Supply Project and submitted to the Authority duly and validly prepared a Work done Statements for a value of work not less than **20%** (Twenty percent) of the Contract Price.

3 Project Milestone-II

- 3.1 Project Milestone-II shall occur on the date falling on the $\frac{1}{2}$ of the Whole Time allowed from the Commencement Date (the “**Project Milestone-II**”).
- 3.2 Prior to the occurrence of Project Milestone-II, the Contractor shall have continued with construction of the Water Supply Project and submitted to the Authority duly and validly prepared a cumulative Work done Statements for a value of work not less than **45%** (Forty-five percent) of the Contract Price.

4 Project Milestone-III

- 4.1 Project Milestone-III shall occur on the date falling on the $\frac{3}{4}$ of the Whole Time allowed from the Commencement Date (the “**Project Milestone-III**”).
- 4.2 Prior to the occurrence of Project Milestone-III, the Contractor shall have continued with construction of the Water Supply Project and submitted to the Authority duly and validly prepared a cumulative Work done Statements for a value of work not less than **75%** (Seventy-five percent) of the Contract Price.

5 Scheduled Completion Date

- 5.1 The Scheduled Completion Date shall occur on the Whole Time allowed **24 (Twenty-Four) Calendar Months** from the Commencement Date.
- 5.2 On or before the Scheduled Completion Date, the Contractor shall have completed construction in accordance with this Agreement.

If the contractor fails to maintain the required progress in terms of each Project Milestone 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 as give in Clause No. 6.15 of the agreement.

SCHEDULE - M
(See Clause 23 & 23.1 of Section-2(B) of DTCN)

Bank Guarantee for BID Security

B.G. No.

Dated:

1. In consideration of **MD, WATCO, Odisha, Bhubaneswar** having its office at **Bhubaneswar**, (hereinafter referred to as the “Authority”, which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the BID of and having its registered office at (hereinafter referred to as the “Bidder” which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns), for the Project **“Construction of ESR and laying of distribution system including automation work to different zones of Ward No.4 for 24x7 water supply to Naharkanta to Phulnakhara area BMC including O&M period of 5 years”** on [Percentage] basis (hereinafter referred to as “the Project”) pursuant to the **DTCN dated 13.07.2026** issued in respect of the Project and other related documents including without limitation the draft contract Agreement (hereinafter collectively referred to as “Bidding Documents”), we (Name of the Bank) having our registered office at and one of its branches at (hereinafter referred to as the “Bank”), at the request of the Bidder, do hereby in terms of **Clause 23 read with Clause 23.1Section-2(B) of the DTCN**, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the DTCN) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of **Rs. *** ** (Rupees *** ** only)** (hereinafter referred to as the “Guarantee”) as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its BID open during the BID validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. *** ** (Rupees *** ** only).
4. This Guarantee shall be irrevocable and remain in full force for a period of 180(one hundred and eighty) days from the BID Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the

Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, *inter alia*, the failure of the Bidder to keep its BID open during the BID validity period set forth in the said Bidding Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.

6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the BIDs or the BID validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.
8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorised to receive the said notice of claim.
10. It shall not be necessary for the Authority to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealised.
11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorised and has full power to execute this Guarantee for and on behalf of the Bank.
13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. *** crore (Rupees *** ** crore only). The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [*** (indicate date falling 180 days after the BID Due Date)].

Signed and Delivered by Bank

By the hand of Mr./Ms, its and authorised official.

(Signature of the Authorised Signatory)
(Official-Seal)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.
- (iii) The stamp papers of appropriate value shall be purchased in the name of bank who issues the “Bank Guarantee”.
- (iv) **The bank guarantee shall be from a Nationalised / Scheduled Indian Bank with counter guaranteed by its branch at Bhubaneswar.**

Bank Details

Name of Bank: State Bank of India, HOD Branch

A/c No. : 35406572672

IFSC: SBIN0010249

Payee Name: Managing Director, WATCO, Bhubaneswar (Current Account)

MICR: 751002028

Appendix - I

**Executive Instruction regarding calling for and acceptance of
tenders in e-Procurement in Govt. of Odisha.**

**Government of Odisha
Works Department**

Office Memorandum

File No.07556900042013 (Pt-II) – 7885/W Dated 23.07.2013

Sub: Codal Provision regarding e-Procurement

After introduction of e-procurement in Government of Odisha, necessary guidelines / procedures has been issued in Works Department Office Memorandum No.1027 dt.24.01.2009 which consists of the procedural requirement for e-procurement of tenders. After careful consideration Government have been pleased to make following modifications to codal provisions by way of addition as Appendix – IX(A) of OPWD Code Vol.II) as follows:

(Appendix-IX (A) of OPWD Code, Vol-II)

**Executive instructions regarding calling for and acceptance of
tenders in e-Procurement.**

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 hoisted in the portal.
2. The e-procurement portal of Government of Odisha is "<https://tendersodisha.gov.in>".
3. Use of valid Digital Signature Certificate of appropriate class (Class II or class III) issued from registered certifying authorities (CA) as stipulated by Controller of Certifying Authorities (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudhra 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 have decided to hoist all tenders costing 10 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 hoisting of tenders by any other departments, authority, corporations, local bodies etc. of the State with prior approval from Works Department. Works

Department is the Nodal Department for the implementation of e-Procurement in the State.

7. The e-procurement shall be operated compliant to relevant provisions of OGFR/ OPWD code/ Accounts code/ Government statues 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. Contractor 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, Division is the General Manager or equivalent Officer and Subdivision is the Assistant Engineer or equivalent officer.
11. The e-Procurement software assigns roles for operation of the module for specific function. The terminologies used in the portal and their respective functions in the software are as follows.
 - 11.1 Application Administrator (NIC & State Procurement Cell)
 - i. Master Management
 - ii. Nodal Officer Creation
 - iii. Report Generation
 - iv. Transfer of Officer's login ID.
 - v. Blocking & unblocking of officer's and bidder's login ID.
 - 11.2 Nodal Officer (At organization level not below the Superintending Engineer or equivalent rank)
 - i. Creation of Users
 - ii. Role Assignment
 - iii. Report Generation
 - iv. Transfer of Officer's login ID.
 - v. Blocking & unblocking of officer's Login ID.
 - 11.3 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.
 - 11.4 Procurement Officer Administrator (Generally sub-ordinate officer to Officer Inviting Tender)
 - i. Creation of Tender

- ii. Creation of Corrigendum / addendum / cancellation of Tender
 - iii. Report generation.
- 11.5 Procurement Officer Opener (Generally sub-ordinate officer to Officer Inviting Tender)
- i. Opening of Bid
- 11.6 Procurement Officer Evaluator (Generally Sub-Ordinate Officer to Officer Inviting Tender)
- i. Evaluating Bid
- 11.7 Procurement Officer-Auditor (Procurement Officer Publisher and/or Accounts Officer / Finance Officer)
- i. To take up auditing

12. NOTICE INVITING BID (NIB) or INVITATION FOR BID (IFB):

- 12.1 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.
- 12.2 The officers competent to publish NIB in case of conventional Bids will host the NIB in 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 O.I.T.:.....
Further details can be seen from the e-procurement portal " https://tendersodisha.gov.in "	

- 12.3 The tender documents published by the Tender Inviting Officer (Procurement Officer Publisher) in the website <https://tendersodisha.gov.in> will appear in the "Latest Active Tender". 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:

- 13.1 The Procurement Officer Publisher (Officer Inviting Tender) shall publish any addendum/ corrigendum/ cancellation of tender in the website

<https://tendersodisha.gov.in>, notice board and through paper publication and such notice shall form part of the bidding documents.

- 13.2 The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to watch the website till last date and time of bid submission for any addendum/ corrigendum/ cancellation thereof. Tender Inviting Authority is not responsible for communication failure of system generated mail.

14. **CREATION AND PUBLISHING OF BID:**

- 14.1 All the volumes/documents shall be uploaded in the portal by the tender creating officer (Procurement Officer Administrator) and published by the Officer Inviting Tender (Procurement Officer Publisher) using their DSCs in appropriate format so that the document is not tampered with

- 14.2 The tender document comprise the notice inviting tender, bid document/ SBD, drawings in .pdf format and the schedule of quantities / BoQ in .xls format to be uploaded by the Officer Inviting Tender.

- 14.3 Procurement Officer Administrator creates tender by filling up the following forms:

i. **BASIC DETAILS**

- ii. **COVER CONTENT:** The Procurement officer Administrator should briefly describe the name and type of documents to be uploaded by the bidder in the following format:

(a) For Single Cover/Packet:

Sl No	Cover Type	Document Description	Type
1	Fee/ Prequal/ Technical/ Finance	Tender Cost, EMD, VAT, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN.	.pdf
		BoQ	.xls

(b) For Two Cover/Packet:

Sl No	Cover Type	Document Description	Type
1	Fee/ Prequal/ Technical	Tender Cost, EMD, VAT, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN.	.pdf
2	Finance	BoQ	.xls
		Special condition if any specifically mentioned by Officer Inviting Tender	.pdf

- iii. **TENDER DOCUMENT:** The Procurement Officer Administrator should upload the NIT in .pdf format.

iv. **WORK ITEM DETAILS**

- v. **FEE DEATILS:** The Procurement Officer Administrator should mention the cost of tender paper and EMD amount as laid down in DTCN/SBD.

- vi. **CRITICAL DATES:** The Procurement Officer Administrator should mention the critical dates of tender such as publishing date, document download start date & end date, seek clarification start date & end date (optional), bid submission start date & closing date, bid opening date as per DTCN/SBD.
- vii. **BID OPENER SELECTION:** The Procurement Officer creator can select two / three / four bid openers for a particular bid. If required the bid openers can also be selected within an organization from other procurement units (Circles /Divisions).
- viii. **WORK ITEM DOCUMENTS:** The Procurement Officer Administrator should upload the digitally signed tender document (SBD/DTCN) or any other addition document/drawings in .pdf format and Bill of Quantities in .xls format.
- ix. **PUBLISHING OF TENDER:** The Procurement Officer Publisher shall publish the tender using his/her DSC after detail scrutiny of the fields created and documents uploaded by the Procurement Officer Administrator. Procurement Officer Publisher can publish tenders for multiple procurement units using multiple DSCs procured for each post separately. After being relieved from the additional charges he has to surrender the additional DSCs to the Nodal Officer of the concerned organisation.

15. **PARTICIPATION IN BID:**

15.1 **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 has to submit the relevant information as asked for about the firm/contractor. The portal registration of the bidder/firm is to be authenticated by the State Procurement Cell after verification of original valid certificates/documents such as (i) PAN and (ii) Registration Certificate (RC) / VAT Clearance Certificate (for procurement of goods) of the concerned bidder. The time period of validity in the portal is at par with validity of RC/ VAT Clearance. Any change of information by the bidder is to be re-authenticated by the State Procurement Cell. After successful authentication bidder can participate in the online bidding process.

15.1.1 Bidders participating through Joint Venture shall declare the authorised signatory through Memorandum of Understanding duly registered and enrol 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 authorised signatory is used in the portal.

15.1.2 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 process that are undertaken through the e-Procurement system irrespective of who operates the system.

15.2 **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 CAs stored in system database. The system checks the unique Login ID, password and DSC combination and authenticates the login process for use of portal.

15.3 DOWNLOADING OF BID: The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience before the closing date and time of submission.

15.4 CLARIFICATION ON BID: The bidder may ask question related to tender 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.

15.5 PREPARATION OF BID

15.5.1 The bids may consist of general arrangements drawings or typical or any other drawings relevant to the work for which bid has been invited. Bidder may download these drawings and takeout 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.

15.5.2 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.

15.6 PAYMENT OF EMD/BID SECURITY AND COST OF BID DOCUMENTS:

15.6.1 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 up load the same in portable document format (PDF) to the system in designated place 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.

15.6.2 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.

15.6.3 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 up loaded in portable document format (PDF) along with the bid.

15.6.4 The tender accepting authority will verify the originals of all the scanned documents of the successful lowest bidder only within 5 days of opening of the tender. In the eventuality of failure on the part of the lowest successful bidder to produce the original documents, he will be debarred in future from participating in tender for 3 years and will be black listed by the competent authority. In such a situation, successful L-2 bidder will be required to produce his original documents for consideration of his tender at the negotiated rate equal to L1 bidder.

15.6.5 Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption

15.6.6 Government of Odisha has been actively considering integrating e-payment gateway in to 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.

16. SUBMISSION OF BID:

16.1 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, VAT, PAN / TIN, Registration Certificate, Affidavits, Profit Loss statement, Joint venture agreement, List of similar nature of 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.

16.2 Bidders are to submit only the original BoQ (in .xls format) uploaded by Procurement Officer Publisher (Officer Inviting Tender) after entering the relevant fields without any alteration/ deletion / modification. Multiple BoQ submission by bidder shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in their rates other than zero value in the specified cells without keeping it blank. In the percentage rate tender the bidder quoting zero percentage is valid and will be taken at par with the estimated rate of the work put to tender.

16.3 The bidder shall upload 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.

16.4 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) without any blank cell in the rate column in case of item rate tender and type

percentage excess or less up to two decimal place only in case of percentage rate tender.

16.5 The bidder shall log on to the portal with his/her DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents.

16.5.1 Bids cannot 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 cannot be opened even by the OIT or the Procurement Officer Publisher/ opener before the due date and time of opening.

16.5.2 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.

16.5.3 The Bidder should ensure clarity/legibility of the document uploaded by him to the portal.

16.5.4 The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.

16.5.5 The bidder should check the system generated confirmation statement on the status of the submission.

16.5.6 The Bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.

16.5.7 The Tender Inviting Officer is not responsible for any failure, malfunction or breakdown of the electronic system used during the e-procurement process.

16.5.8 The Bidder is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantity duly filled in. It is not necessary for the part of the Bidder to up-load the drawings and the other Bid documents (after signing) while uploading his bid. It is assumed that the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid.

16.5.9 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 and 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.

16.6 **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 & his registration in the portal shall be blocked and the bidder is liable to be blacklisted.

17. **SECURITY OF BID SUBMISSION:**

17.1 All bid uploaded by the Bidder to the portal will be encrypted.

17.2 The encrypted Bid can only be decrypted / opened by the authorised openers on or after the due date and time.

18. RESUBMISSION AND WITHDRAWAL OF BIDS:

- 18.1 Resubmission of bid by the bidders for any number of times before the final date and time of submission is allowed.
- 18.2 Resubmission of bid shall require uploading of all documents including price bid afresh.
- 18.3 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.
- 18.4 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.
- 18.5 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.

19. OPENING OF THE BID:

- 19.1 Bid opening date and time is specified during tender creation or can be extended through corrigendum. Bids cannot be opened before the specified date & time.
- 19.2 All bid openers have to log-on to the portal to decrypt the bid submitted by the bidders.
- 19.3 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.
- 19.4 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.
- 19.5 Combined bid security for more than one work is not acceptable.
- 19.6 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.
- 19.7 In case of non-responsive tender the officer inviting tender should complete the e-Procurement process by uploading the official letter for cancelled / re-tender.

20. EVALUATION OF BIDS :

- 20.1 All the opened bids shall be downloaded and printed for taking up evaluation. The officer authorized to open the tender shall sign and number on each page of the documents downloaded and furnish a certificate that "the documents as available in the portal containing _____ nos. of pages".
- 20.2 The bidder may be asked in writing/ online (in their registered e-mail ids) to clarify on the uploaded 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. The authority inviting bid may reserve the right to accept any additional document.

- 20.3 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.
- 20.4 The Technical evaluation of all the bids shall be carried out as per information furnished by Bidders.
- 20.5 The Procurement Officer-Evaluators; will evaluate bid and finalize list of responsive bidders.
- 20.6 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.
 - 20.6.1 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.
 - 20.6.2 At the time of opening of "Financial Bid", bidders whose technical bids were found responsive will be opened.
 - 20.6.3 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.
 - 20.6.4 Procurement Officer-Openers shall sign on each page of the downloaded BoQ and the Comparative Statement and furnish a certificate to that respect.
 - 20.6.5 Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.
 - 20.6.6 System provides an option to Procurement Officer Publisher for reconsidering the rejected bid with the approval of concern Chief Engineer / Head of Department.

21. NEGOTIATION OF BIDS:

- 21.1 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.

22. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:

- 22.1 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 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.

- 22.2 The Contractor after furnishing the required acceptable Performance Security & 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.
- 22.3 If the L-1 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. Besides the consortium / JV / firm where such an agency / firm already happens to be or is going to be a partner/member/proprietor, he/ they shall neither be allowed for participation in bidding for three years nor his/ their application will be considered for registration and action will be initiated to blacklist him / them. In that case, the L-2 bidder, if fulfils other required criteria, would be called for drawing agreement for execution of work subject to condition that the L-2 bidder negotiates at par with the rate quoted by the L-1 bidder, otherwise the tender will be cancelled.

23. BLOCKING OF PORTAL REGISTRATION:

- 23.1 If the Registration Certificate of the Contractor is cancelled /suspended by the registering authority/ blacklisted by the competent authority his portal registration shall be blocked automatically on receipt of information to that effect.
- 23.2 The portal registration blocked in the ground mentioned in the above Para-23.1 shall be unblocked automatically in receipt of revocation order of cancellation / suspension/ blacklisting from the concerned authority.
- 23.3 The Officer Inviting Tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the Officer Inviting Tender is required to issue an intimation to the defaulting bidder about his unsatisfactory reply and recommend to the Chief Manager (Tech.) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer/ Heads of Office if any of the following provisions are violated.
- 23.3.1 Fails to furnish original Technical / Financial (Tender Paper Cost, EMD/Bid Security) instruments before the designated officer within the stipulated date and time.
- 23.3.2 Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period.
- 23.3.3 Fails to execute the agreement within the stipulated date.
- 23.3.4 If any of the information furnished by the bidder is found to be false / fabricated / bogus.

Accordingly the Officer Inviting Tender shall recommend to the Chief Manager (Tech.), State Procurement Cell, Odisha for blocking of portal registration of bidder and simultaneously action shall also be initiated by OFFICER INVITING TENDER for blacklisting as per Appendix- XXXIV of OPWD Code, Volume-II.

24. GUIDELINES FOR UNBLOCKING OF PORTAL REGISTRATION:

24.1 UNBLOCKING OF PORTAL REGISTRATION:

Unblocking of portal registration of a contractor shall be done by a Committee consisting of the following members.

EIC (Civil)-cum-CPO,	-	Chairman
Engineer-in-Chief (WR)	-	Member
Concerned Chief Engineer	-	Member
Sr. Manager (Finance), SPC	-	Member
Officer Inviting Tender	-	Member
Chief Manager (Technical), SPC	-	Convener

24.2 The Chief Manager (Tech), State Procurement Cell will be the convener and he will maintain all records for this purpose. The Committee shall meet not less than once in a month if required & shall consider the recommendation of the officer inviting tender for unblocking of portal registration. The quorum of the meeting will be four.

24.3 The minimum period of blocking of Portal Registration shall in no case be less than 90 days. After blocking of Portal Registration, the Contractor whose Portal Registration has been blocked may file application to the concerned officer inviting tender showing sufficient ground for unblocking of his portal registration along with a Treasury Challan showing deposit of Rs. 10,000/- (Rupees ten thousand) only (non-refundable) under the head of accounts '0059 - Public Works' as processing fees. The officer inviting tender shall forward the application filed by the contractor to the Chief Manager (Tech), State Procurement Cell.

24.4 On receipt of recommendation from the concerned Chief Engineer along with the copy of challan as mentioned above, the Chief Manager (Tech) being the member Convener of the Committee shall place the case before the Committee for examination and taking a decision in this regard. After examination the Committee may recommend for unblocking of the portal registration of said contractor if the Committee is satisfied that the fault committed by the contractor is either unintentional or done for the first time.

24.5 After scrutiny by the State Procurement Cell if it is found that the portal registration of a contractor has been blocked for the 2nd time the Chief Manager (Tech), SPC may not consider his case to be placed before the Committee and may advice the concerned officer inviting tender to issue show cause notice to the contractor asking him to explain as to why his portal registration shall not remain blocked. On receipt of show cause reply from the contractor the officer inviting tender shall examine the same & if considered proper he may report to the Chief Manager (Tech), SPC along with his views furnishing the copy of the show cause reply for placement of the same before the Committee for taking a decision in respect of blocking/ unblocking. If the Committee found that the contractor is in habit of committing such fault again and again intentionally the committee may advice the concerned officer inviting tender to initiate proceeding for blacklisting as per the existing rule.

1. These amendments shall take effect from the date of issue of the order.
2. This amendment is an addition to the existing provision and will be placed below Appendix-IX to OPWD Col, Vol-II.
3. Accordingly Office Memorandum No.1027 dt.24.01.2009 stands modified.
4. This has been concurred in by the Finance Department vide their UOR No.3-WF-1 dt.04.01.2013.

Sd/19.07.2013
E.I.C-cum-Secretary to Govt.

**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 - IV

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 Bhubaneswar 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 Bhubaneswar 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 Bhubaneswar 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 Bhubaneswar 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.