



**PANCHAYATIRAJ & DRINKING WATER DEPARTMENT
GOVERNMENT OF ODISHA**

RFP DOCUMENT

**Selection of Agency for Operation &
Maintenance of Rural PWS Works for
Bhubaneswar Division Division, Khurda
District in the State of Odisha**

Bid Identification No. EIC/RWS&S/10/2018-19

September 2018

**Rural Water Supply & Sanitation,
PR&DW Department, Odisha
Jal 'O' Parimal Bhawan, Bhubaneswar, Odisha, 751001**

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SECTION 1

NOTICE INVITING PROPOSAL

**Office of the Engineer-In-Chief, RWS&S
Odisha, Bhubaneswar**

PANCHAYAT RAJ & DRINKING WATER DEPARTMENT, GOVERNMENT OF ODISHA

Jal 'O' Parimal Bhawan, Bhubaneswar – 751001

URL: www.odishapanchayat.gov.in

Email: cerwssodisha@gmail.com

Telephone Phone: 0674-2395734

Bid Identification No. EIC/RWS&S/10/ 18-19

Dated: 17/09/ 2018

1.1. EIC, RWS&S under the administrative department of Panchayati Raj & Drinking Water Department, Odisha invites sealed proposals (Technical and Financial) from eligible firms/operators for Operation & Maintenance of Rural Piped Water Supply Works for Bhubaneswar Division pertaining to Khurda District in the State of Odisha

1.2. Schedule of Events

Date of issue of RFP	19.07.2018
Date & Time of Pre Bid Conference	02.08.2018, 1130 hours
Publication of Pre-Bid Clarification in the Department Website	07.08.2018
Last Date & time of submission of RFPs	05.09.2018
Revised Date & time of submission of RFPs	03.10.2018 up to 1700 hours
Date & time of opening of Technical Bid	06.09.2018
Revised Date & time of opening of Technical Bid	04.10.2018 up to 1130 hours
Tentative Date & time of opening of Financial Bid	To be notified later
Period of Contact	3 (three) years
Mode of Bid submission	Hard Copy Submission
Downloading of RFP	www.odishapanchayat.gov.in/ www.odisha.gov.in
Validity of the Bid	The Bid shall be valid for a period of 180 days from the last date of submission of RFP
Consortium/ Joint Venture	Allowed
Bids Submission address & Contact No.	Engineer-in-Chief Rural Water Supply & Sanitation, Odisha Jal O Parimal Bhawan Unit – V, Bhubaneswar, Odisha. Pin Code: 751001 Tel: 0674-2395734 Fax: 0674-2394946 Email: cerwssodisha@gmail.com

Cost of Document	Rs. 10,000/- (Rupees Ten Thousand)
Bid Security (EMD)	Rs. 5,00,000 (Rupees Five Lakhs)
Performance Security	5 % of the Contract Value

- 1.3. Interested parties may download the RFP document (a complete set of document is available on website) from the website **www.odishapanchayat.com/** **www.tendersorissa.gov.in** and submit the proposal by using the downloaded document, along with the required non-refundable document cost as mentioned in Para 1.3 above. The proposal will be rejected if the applicant changes any clause or annexure of the RFP document downloaded from the website.
- 1.4. Prospective applicants may attend the Pre-bid meeting. The venue, date and time are indicated at Para 1.2 above.
- 1.5. Parties shall ensure that their proposals, complete in all respects, are delivered at O/o EIC, RWS&S, Odisha on or before the closing date and time indicated in the Para 1.2 above, failing which the tender proposals will be treated as late receipt and shall be rejected. The Proposals sent by post/ courier must reach the above said address on or before the closing date and time indicated in Para 1.2 above, failing which it will be treated as late tender and shall be rejected.
- 1.6. In the event of any of the above mentioned dates being declared as a holiday / closed day by Government of Odisha, the documents/bids will be sold/received/opened on the next working day during office hours.
- 1.7. The RFP Documents are not transferable.
- 1.8. All Proposals must be accompanied by EMD and Document Fee as prescribed. Proposals without EMD Document Fee shall be rejected.

Sd/-
**Engineer-In-Chief, RWSS,
Odisha, Bhubaneswar**

INTRODUCTION

2.1 Background

The Rural Water Supply & Sanitation (RWS&S) wing of Panchayati Raj & Drinking Water Department, Government of Odisha is engaged in the execution, operation & maintenance of water supply projects in the State of Odisha and as part of this endeavour, the Authority intends to engage an Agency for **Operation & Maintenance of Rural Piped Water Supply Works for Bhubaneswar Division pertaining to Khurda** District in the State of Odisha as per the terms and conditions specified in the RFP document.

2.2 Objectives

The key objective is to operate and maintain the existing rural water supply system, improving the water service quality and ensure continuous delivery of water to the rural consumers.

2.3 Scope of Work

The scope of work will include a comprehensive assessment of the existing system and operation & maintenance of the water supply schemes. The detailed scope of work, infrastructure requirement and the service level parameters are provided in **Section 6** (Terms of Reference).

2.4 Roles and Responsibilities of Parties

2.4.1 Roles of Authority

- (i) Provide all necessary details of the existing water supply system;
- (ii) Facilitate the Agency in obtaining necessary approvals;
- (iii) Payment of all energy bills of all components of the water supply system will be paid by the authority during O&M period.
- (iv) Water quality testing on a regular basis

2.4.2 Roles of Agency

- (i) Operation & Maintenance of the existing water supply system, including pump and motor, water treatment plant, raising mains, service reservoirs and the distribution system;
- (ii) Refurbishment, operation and maintenance of the water supply facilities from the existing water plants to distribution points (stand post/ household connections) including operation, maintenance of water plants and pumping stations;

- (iii) Transmission of treated water and distribution to stand posts/ households;
- (iv) Provide new household connections where ever required;
- (v) Repair and maintenance of the facilities and replacement of all necessary components as and when required of the water supply system;
- (vi) The operator has the flexibility to install automation instruments for better running efficiency;
- (vii) Purchase of consumables such as bleaching powder, sodium/potassium hypochlorite, common salt to be used wherever bleaching doser, electro chlorinator are installed respectively and administration of dosages for water disinfection;
- (viii) Conducting the disposal processes of the WTP sludge including solid waste sludge, strictly in line with the applicable rules and regulations;
- (ix) Carry out operation and maintenance of the water supply systems as per Performance Standards defined in Annexure-6 of this RFP document;
- (x) Complain redressal system to be setup for each PWS Project related to system repairs;

2.5 Duration of the Project

The total duration for operation and maintenance of the Rural PWS project for Bhubaneswar Division is 3 (three) years from the date of signing of contract.

INSTRUCTIONS TO BIDDER

3.1 General Instructions

- a) The Applicant should prepare and submit its proposal (Technical and Financial) as per instructions given in this section.
- b) The proposal shall be completed with all respects. Incomplete proposals shall be liable for rejection.
- c) The prices quoted shall be **firm** and shall include all taxes and duties. This shall be quoted in the prescribed format only as given in **Annexure 1**.
- d) The Proposal (technical and financial) shall be submitted (with a covering letter as per **Annexure 2**) before the last date of submission.

3.2 Earnest Money Deposit (EMD) and Cost of RFP Document

- a) The tender shall be accompanied by Earnest Money Deposit (EMD) of Rs. 5,00,000 (Rupees Five Lakhs) in the shape of Postal Savings, Pass Book/ NSC/ Post Office Time Deposit Account/ Kissan Vikash Patra/ Deposit Receipt in Nationalized/ Scheduled Bank duly pledged in favor of "Engineer-in-Chief, RWSS Odisha, Bhubaneswar"
- b) Proposal submitted without EMD shall be rejected.
- c) The EMD of unsuccessful parties (applicant) will be returned to them after conclusion of the resultant contract. The EMD of the successful bidder will be returned after receipt of performance security as per the terms of contract.
- d) EMD of a applicants may be forfeited without prejudice to other rights of the proposal inviting authority, if the applicant withdraws or amends its proposal or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information /documents furnished in its tender is incorrect, false, misleading or forged. In addition to the aforesaid grounds, the successful applicant's EMD will also be forfeited without prejudice to other rights of purchaser, if it fails to furnish the required Performance Security within the specified period.
- e) Cost of RFP of Rs. 10,000/- (Rupees Ten thousand only) in the form of demand draft in favor of "Executive Engineer, RWSS Division, Bhubaneswar", payable at Bhubaneswar.

3.3 Structure and Submission of Proposal

- a) The proposals are required to be submitted in two parts (Technical & Financial) separately in sealed envelopes as explained below.

- b) **Envelope 1:** To be marked, as “**Technical Proposal**” shall have two separate envelopes in it marked as “Proof of Eligibility” and “Technical Details” as follows.
- (i) Proof of Eligibility: This will contain the documents in support of eligibility criteria mentioned at Section 4.4.1.
 - (ii) Technical Details: This will contain the documents as mentioned in technical proposal described below;
- c) **Envelope 2:** To be marked as “**Financial Proposal**”
- (i) The applicant shall quote price in the format enclosed as **Annexure I**. The price as quoted shall be for the entire range of activities as defined under **Section 6** of the RFP. It shall cover both capital and operational expenditure to be incurred by the Firm for providing the service. No other payment shall be due to the Firm other than the price as quoted in the Financial Bid
 - (ii) Government shall not pay or bear any cost separately towards capital expenditure. The price offered shall cover both operational and capital expenditure to be incurred by the Firm/ Operator for providing the service.
- d) The two envelopes containing both technical and the financial proposal shall be put in a bigger envelope, which shall be sealed and superscripted with “RFP **Reference No. EIC/RWS&S/10/2018-19** for “RFP for Selection of Agency for Operation & Maintenance of Rural Piped Water Supply Works for Bhubaneswar Division pertaining to Khurda District in the State of Odisha” due for opening on **04.10.2018**.

The offer shall contain no interlineations or overwriting except as necessary to correct errors, in which cases the person or persons signing the tender must initial such correction. In case of discrepancy in the quoted prices, the price written in words will be taken as valid.

3.4 Content of Technical Proposal (Envelop 1)

a) Technical Proposal (Envelop 1)

It shall be submitted along with a forwarding letter (“**Annexure 2**”) in a sealed envelop duly marked on it in bold letter as “**TECHNICAL PROPOSAL**” and shall contain both Proof of Eligibility and Technical Details in separate envelopes.

b) Proof of Eligibility:

- (i) Tender Cost in form of Demand Draft
- (ii) Postal Savings Pass Book/ NSC/ Post Office Time Deposit Account/ Kissan Vikash Patra/ Deposit Receipt in Nationalized/ Scheduled Bank duly pledged towards **E.M.D.**
- (iii) Confirmation regarding furnishing **Performance Security** in case of award of contract.
- (iv) Original RFP document duly stamped and signed in each page along with the Forwarding Letter confirming the performing the assignment as per “**Annexure 2**”.

- (v) Particulars of the applicant as per “**Annexure 3**”
- (vi) Copy of the certificate of Incorporation /Registration.
- (vii) The bidder must attach audited accounts or certificate duly certified by Chartered Accountant for last three years as supporting documents.
- (viii) Work-orders and/or any other supporting documents/experience certificates issued by any government client pertaining to such works done in the past to evidence the fulfillment of the eligibility criteria with respect to capacity and experience.
- (ix) Power of attorney in favor of signatory to the proposal.
- (x) Copy of the certificate of GST with the appropriate authority.
- (xi) A declaration from the applicant in the format given in the “**Annexure 4**” to the effect that the firm has neither been declared as defaulter or black-listed by any competent authority of a government department, government undertakings, local bodies, authorities.

c) Technical Details:

In addition to the above documents, Technical Proposal shall contain following details:

- (i) Provide a detailed profile of the organization.
- (ii) Provide a write-up on the manner in which the bidder proposes to carry out the assignment. In particular, the write-up must include a detailed description of the following:
 - 1) Details of experience in managing similar projects.
 - 2) Proposed operational modalities with time line
 - 3) Proposed organizational structure with roles and responsibilities
 - 4) Detailed recruitment and training plan
 - 5) Detailed Quality Management System
 - 6) Proposed reporting system

d) Financial Proposal

The second envelope shall contain the financial proposal and shall be marked in bold letters as “**FINANCIAL PROPOSAL**”. Prices shall be inclusive of all taxes and duties and quoted in the format enclosed as “**Annexure 1**”.

3.5 Price Validity & Contract Period

The tenders shall remain valid for six calendar months for acceptance and the prices quoted shall remain firm through the contract period. The contract may be extended further with mutual consent.

3.6 Opening of Proposal:

The technical proposal will be opened at the time and date specified in the schedule. The Proposer may attend the opening proposals, if they so desire.

3.7 Force Majeure:

- a) The Agency shall not be allowed to suspend or discontinue Services during occurrences of emergencies or Force Majeure events. Provided, in such circumstances of emergencies and Force Majeure event, if the Performance Standards are not complied with because of any damage caused to any of the Project Facilities or non-availability of staff, or inability to provide services in accordance with the Performance Standards as a direct consequence of such Force Majeure events or circumstances then no penalties applicable for the relevant default in Performance Standards would be applied to such particular defaults. Provided further, unless the Force Majeure event is of such nature that it completely prevents the operation, a suspension of or failure to provide Services on the occurrence of a Force Majeure event will be an Event of Default.
- b) The failure of a party to fulfill any of its obligations under the agreement shall not be considered to be a default in so far as such inability arises from an event of force majeure, provided that the party affected by such an event (i) Has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of the agreement, and (ii) Has informed the other party as soon as possible about the occurrence of such an event.

EVALUATION OF PROPOSAL

4.1 Scrutiny of Proposal

The proposal will be scrutinized to determine whether they are complete and meet the essential and important requirements, conditions and whether the bidder is eligible and qualified as per criteria laid down in Section VI of the RFP. The proposals, which do not meet the aforesaid requirements, are liable to be treated as non-responsive and may be ignored. The decision of the inviting authority as to whether the applicant is eligible and qualified or not and whether the proposal is responsive or not shall be final and binding on the proposers/bidders. Financial Proposal (**Envelop-2**) of only those applicants, who qualify in the technical evaluation, will be considered for opening.

4.2 Infirmary / Non-Conformity

The inviting authority may waive minor infirmity and/or non-conformity in a proposal, provided it does not constitute any material deviation. The decision of the proposal inviting authority as to whether the deviation is material or not, shall be final and binding on the bidders.

4.3 Clarification of RFP Document

Wherever necessary, the proposal inviting authority may, at its discretion, seek clarification from the applicant seeking response by a specified date. If no response is received by this date, the inviting authority shall evaluate the offer as per available information.

4.4 Evaluation Process

Tender Evaluation Committee duly appointed by the department in the following manner shall evaluate the proposals:

Stage 1: The proof of eligibility of all applicants shall be examined to confirm if all eligibility criteria are met. The applicants who fail to meet one or more of the stipulated eligibility criteria shall be declared 'ineligible'.

Stage 2: The technical details of all eligible applicants shall be opened next and evaluated on the parameters as indicated below:

4.4.1 Eligibility Criteria

- a) Entity duly registered /incorporated in India having more than five years of relevant working experience as on the date of submission of the proposal/bid.
- b) Minimum average annual turnover of Rs. 20 Crore in last three financial years (2015-16, 2016-17 & 2017-18). The bidder must attach audited Statement of Accounts duly certified its Statutory Auditor for last three financial years and certificate certifying the last three financial years annual turnover as supporting documents.

- c) Should have experience in operation and maintenance of water supply projects or power utility with coverage of minimum 1000 household connections.
- d) Should not have been involved in any litigation that might compromise the delivery of services as required under this contract.
- e) Should not have been blacklisted by any government agency or public sector undertaking in India.

Note:

- (i) The bidder is required to furnish adequate documentary evidence in support of compliance of eligibility criteria along with the proposal.
- (ii) In case of a Joint Venture/ Consortium, the experience of both the members will be taken into consideration for the purpose of eligibility and evaluation. For avoidance of doubt, combined technical and financial experience of the Lead Member and other JV member should meet the requirement as per Clause 4.4.1 of Eligibility Criteria. The Lead Member should meet the technical experience.

4.4.2 Evaluation Criteria

Criteria for Evaluation	Marks	Maximum
Experience in construction and operation & maintenance of similar projects (Piped Water Supply or power utility)		30
More than three years but less than five years	20	
More than five years	30	
Experience in operation & maintenance of other infrastructure projects		10
More than three years but less than five years	5	
More than five years	10	
Avg. Annual Turnover in last three years as per audited statement of accounts:		25
Up to Rs. 25 Cr.	15	
More than Rs. 25 Crore	25	
Experience in operation and maintenance of water supply or power utility projects with coverage of minimum 1000 household connections in India		35
One project	20	
For additional three projects	15	
Total	100	100

In case of a Joint Venture/ Consortium, the experience of both the members will be taken into consideration for the purpose of eligibility and evaluation. For avoidance of doubt, combined technical and financial experience of the Lead Member and other JV

member should meet the requirement as per Clause 4.4.2 of Evaluation Criteria. The Lead Member should meet the technical experience.

Technical proposals scoring less than 60 marks shall be declared as 'not qualified' and their financial proposals shall not be opened.

4.5 Opening of Financial Proposal

Final selection shall be on least cost basis (L1) only among those bidders who scores minimum qualifying mark of 60 in technical evaluation.

TERMS AND CONDITIONS

5.1 Signing of Contract

The proposal inviting authority shall issue the Notice for Award of Contract to the successful bidder within the bid validity period. And the successful bidder will be required to sign and submit the contract unconditionally within 21 days of receipt of such communication (award of contract) along with the performance security.

5.2 Modification to Contract

The contract when executed by the parties shall constitute the entire contract between the parties in connection with the assignment and shall be binding upon the parties. Modification, if any, to the contract shall be in writing and with the consent of the parties. However, in no circumstances, the contract should be inconsistent with the RFP provisions.

5.3 Performance Security

- a) The successful Firm/ Operator shall furnish a performance security in the shape of a Demand Draft/Bank Guarantee/Fixed Deposit Receipt issued by a Nationalised Bank having branch at Bhubaneswar and should be drawn in favour of Tender Inviting Authority for an amount equivalent to 5% of the Contract value. The Bank guarantee shall be as per the format given at "Annexure 5" and remain valid for a period, which is three months beyond the date of expiry of the contract. This shall be submitted within 21 days (minimum) of receiving of Notice for Award of Contract, failing that the EMD may be forfeited and the contract may be cancelled.
- b) If the firm/ Operator violates any of the terms and conditions of contract, the Performance Security shall be liable for forfeiture, wholly or partly, as decided by the authority in addition to premature termination of the contract.
- c) The Purchaser will release the Performance Security without any interest to the Firm (Agency) on successful completion of contractual obligations.

5.4 Compliance of Minimum Wages Act and other applicable Labour Laws

The Firm/ Agency shall comply with all the provisions of Minimum Wages Act and any other labour laws as applicable.

5.5 Employees Provident Fund and Employees State Insurance

The firm / Agency shall comply with all the requirements of EPF and ESI Rules and make necessary payments to its employees.

5.6 Income Tax Deduction at Source

Income tax deduction at source shall be made at the prescribed rates from the bills amount payable to the Firm/ Agency. The deducted amount will be reflected in the requisite Form, which will be issued at the end of the financial year.

5.7 Payment

a) Monthly Service Charges/Fees:

- (i) The payment will be made on monthly basis subject to the submission of correct and complete invoice along with supporting by the Agency. The Agency will raise its invoice on monthly basis at contracted rate to RWS&S, Odisha by 1st week of next month.
- (ii) On receipt of the statement of claim, concerned section/cell under RWS&S, Odisha shall study the correctness and completeness of the claim and supporting documents. All adjustments on the ground of penalty or short performance shall be calculated and recorded properly. The concerned section/cell shall complete the verification in 7 working days and issue a deficiency note, if any to the Agency. On receipt of the same, the Agency shall revert rectifying the deficiencies and submit the final claim to RWS&S, Odisha.
- (iii) Within 15 days of submission of final claim with required supporting documents and duly scrutinized by the concerned Section/ Cell, RWS&S will release the payment.

b) Penalties:

Inability of the proposed solution and setup to deliver the required functionality at performance levels expected at the specified volumes (including the expected increase in volumes) would result in breach of contract and would invoke the penalty clause. The proposed rate of penalty would be as per **Annexure-6** of this RFP document for non-compliance to the performance levels, for that particular year, subject to an upper limit of 10% of value total O&M cost payable in that year.

Inability of the vendor to provide services at the service levels defined would result in breach of contract and would invoke the penalty clause. The proposed rate of penalty would be as per **Annexure-6** of this RFP document for non-compliance to, the service levels for every percentage below the expected levels of service, for that particular service or product, subject to an upper limit of 10% of value of total O&M cost payable in that year. Overall cap for penalties will be 10% of the contract value. Thereafter, the contract may be cancelled and amount paid if any, will be recovered with 1.25% interest per month. The above penalty clauses shall be applicable from the 4th month of operation.

5.8 Damages for Mishap/Injury

The department shall not be responsible for damages of any kind or for any mishap/injury/accident caused to any service engineer/ personnel/property of the firm/ Agency while performing duty. All liabilities, legal or monetary, arising in that eventuality shall be borne by firm/ Agency.

5.9 Termination/Suspension of Agreement:

The Client may, by a notice in writing suspend the agreement if the Agency fails to perform any of his obligations including carrying out the services, provided that such notice of suspension --

- Shall specify the nature of failure, and
- Shall request remedy of such failure within a period not exceeding 15 days after the receipt of such notice.

The Client after giving 30 days clear notice in writing expressing the intention of termination by stating the ground/grounds on the happening of any of the events (a) to (d), may terminate the agreement after giving reasonable opportunity of being heard to the Agency.

- a) If the Agency do not remedy a failure in the performance of his obligations within 15 days of receipt of notice or within such further period as the Client have subsequently approve in writing.
- b) If the Agency becomes insolvent or bankrupt.
- c) If, as a result of force majeure, Agency is unable to perform a material portion of the services for a period of not less than 60 days: or
- d) If, in the judgment of the Client, the Agency is engaged in corrupt or fraudulent practices in competing for or in implementation of the project.

5.10 Arbitration

- a) If dispute or difference of any kind shall arise between the purchaser and the firm/ Agency in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.
- b) If the parties fail to resolve their dispute or difference by such mutual consultations within thirty days of commencement of consultations, then either the purchaser or the firm/ Agency may give notice to the other party of its intention to commence arbitration, as hereinafter provided. The applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India. In that event, the dispute or difference shall be referred to the sole arbitration of an officer to be appointed by the proposal inviting authority as the arbitrator. If the arbitrator to whom the matter is initially referred is transferred or vacates his office or is unable to act for any reason, he / she shall be replaced by another person appointed by tender inviting officer to act as Arbitrator. Such person shall be entitled to proceed with the matter from the stage at which his predecessor left it.
- c) Work under the contract shall, notwithstanding the existence of any such dispute or difference, continue during arbitration proceedings and no payment due or

payable by the Purchaser or the firm / Agency shall be withheld on account of such proceedings unless such payments are the direct subject of the arbitration.

- d) Reference to arbitration shall be a condition precedent to any other action at law.
- e) Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e. Bhubaneswar.

5.11 Applicable Law and Jurisdiction of Court:

The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force. The Court located at the place of issue of contract shall alone have jurisdiction to decide any dispute arising out of in respect of the contract. It is specifically agreed that no other Court shall have jurisdiction in the matter.

Terms of Reference

6.1 Scope of Services

The Agency shall operate & maintain the RPWS projects for 3 (three) calendar years as per the details given below.

- Supplying required manpower including payment of their wages/ remuneration (requirement of manpower as per Clause 6.6.) for running of pumps at head works/ WTP/ operation of valves at head works, treatment unit, rising main, gravity main and distribution system. Repair of rising main, distribution system, gravity main including repair of stand post and valves chambers, watch and ward of head works, treatment unit, service reservoir and gravity main.
- Supply of consumable like bleaching powder, sodium or calcium hypochlorite, alum/PAC, lime, alum required for treatment of water as per water supply manual as treatment unit according to the turbidity of raw water and maintenance of required residual chlorine at the farthest point of delivery.
- Payment of all energy bills of all components of the water supply system will be paid by the Gram Panchayat during the O&M period.
- Minor & major repair of all civil structural units, electrical and mechanical equipment to run the water supply effectively and efficiently during the O&M period. The items wise list of major repair works has been mentioned in Clause 6.7 of the TOR. For all major repair works, the Operator / Agency shall develop the necessary infrastructure and the payment of the same shall be made to the Agency by the Authority/ Government as per the latest Schedule of Rates (SOR) of Odisha.
- Besides this, any other special repair to civil/ PHE structures, electrical & mechanical equipments etc. are to be done by the contractor as and when required, as per the direction of Engineer-in-Charge for ensuring uninterrupted water supply.
- Payment of manpower, chemicals, consumables, all repairs (minor/ major/ special) shall be borne by the Agency during the O&M period.
- The maintenance work shall be taken up by the Agency as mentioned in this Section
- The Agency shall furnish the information as per the checklist for operation and maintenance mentioned above to the Engineer-in-Charge in a weekly basis, monthly basis, quarterly basis and yearly basis.

6.2 Roles and Responsibilities of Parties

6.2.1 Roles of Authority

- (i) Provide all necessary details of the existing water supply system;

- (ii) Facilitate the Agency in obtaining necessary approvals;
- (iii) Payment of all energy bills of all components of the water supply system will be paid by the authority during O&M period.
- (iv) Water quality testing on a regular basis

6.2.2 Roles of Agency

- (i) Operation & Maintenance of the existing water supply system, including pump and motor, water treatment plant, raising mains, service reservoirs and the distribution system;
- (ii) Refurbishment, operation and maintenance of the water supply facilities from the existing water plants to distribution points (stand post/ household connections) including operation, maintenance of water plants and pumping stations;
- (iii) Transmission of treated water and distribution to stand posts/ households;
- (iv) Provide new household connections where ever required;
- (v) Repair and maintenance of the facilities and replacement of all necessary components of the water supply system;
- (vi) The operator has the flexibility to install automation instruments for better running efficiency;
- (vii) Purchase of consumables such as bleaching powder, sodium/potassium hypochlorite, common salt to be used wherever bleaching doser, electro chlorinator are installed respectively and administration of dosages for water disinfection;
- (viii) Purchase of chlorine and administration of dosages for water purification;
- (ix) Conducting the disposal processes of the WTP sludge including solid waste sludge, strictly in line with the applicable rules and regulations;
- (x) Complain redressal system to be setup for each PWS Project related to system repairs;

6.3 Annual Maintenance of RPWS

1. All materials, components of the piped water supply systems during the period of maintenance shall be the property of Gram Panchayat/ RWSS Organization where the system is installed.
2. Maintenance of the entire system including supply of necessary spare parts

3. Ensure all the house hold of the PWS Scheme covered area will get (adequate) required quantity of supply water @ 40 LPCD taking supply hour as 4 hours/day without facing any problem.
4. The requisite numbers of qualified and trained personnel are required to be deputed / available.
5. The deputed personnel shall be qualified and well trained so that they can handle any type of operation hazard quickly and timely.
6. The deputed personnel shall have to keep the record on daily and monthly basis for the PWS systems as per format to be supplied after commissioning of the PWS.
7. The deputed personnel shall be in a position to check and test all the equipment regularly, so that preventive actions, if any, could be taken well in advance to save any equipment from damage.
8. During the maintenance period of the systems, if there is any defect of any component of all systems the supplier shall be responsible for immediate replacement / rectification. The damaged component may be repaired, if it is understood after examination that after repairing performance of the component shall not be degraded, otherwise the defective component shall have to be replaced by new one without any extra cost.

6.4 Annual Maintenance Instructions:

- 6.4.1 The executants shall furnish 4 copies of maintenance instructions in Odiya / English for approval and supply 5 sets of the approve manuals of instructions at the time of inspection and taking over of the equipment. These manuals shall properly bound in book form and contain all information, description of equipment, diagram etc. necessary to enable the customer to operate and maintain the whole scheme.
- 6.4.2 Systems personnel shall be deputed on such basis so that a qualified / trained person with a minimum Technical qualification should be available at site always during the maintenance period.
- 6.4.3 The Agency shall depute an engineer of their company for the maintenance of the systems who shall be fully responsible for the complete maintenance and optimum operation of the systems. The name and contact nos. of this engineer shall be notified to the Engineer-In-Charge and Gram Panchayat/ VWSC for the purpose of contact, responsibility and correspondence with regard to all trouble shooting.
- 6.4.4 Replacement & repair of damaged parts shall be carried out immediately during the maintenance period so as to ensure at least 95% uptime.
- 6.4.5 Systems operation reports in a format prescribed by the Engineer-In-Charge shall be furnished by the Agency on a monthly basis.

6.4.6 The Agency shall ensure replacement of worn out parts and component during the maintenance period for which purpose the supplier shall carry and maintain minimum inventory of spares at the systems and its works.

6.5 Routine, preventive, breakdown& Capital Maintenance:

6.5.1 Routine and Preventive maintenance shall include such checks and maintenance activities monthly / quarterly / half yearly and yearly basis which are required to be carried out on all the components of the systems to minimize breakdown and to ensure smooth and trouble free running of the all systems. The supplier shall be responsible to carryout routine and preventive maintenance and replacement of each and every component/ equipment of the water supply system and he shall provide all labour, materials, consumables etc. for routine and preventive maintenance of his own cost even though there is no complaint arise in that period and to be recorded in a register duly checked by the Junior Engineer, RWSS and the president of any committee responsible for the piped water supply in the GP/Village or any other member nominated by the Engineer-in-charge/Block Development officer.

- a) Maintenance of BFV/SV/NRV/AV in each month. (The change of gland, nut and bolt etc.) or if required within that period. The change of spindle and ball should be made every year.
- b) Maintenance of Internal Electrification, The change of relay, kitkat, fuse, capacitor etc. in every year or if required within that period.
- c) Maintenance of chlorination system should be made in every day and it should be seen that the residue to be cleaned and the plant is in perfect operating condition.
- d) (i) The pump house, compound wall (includes doors, windows, window grills main gate etc.), RCC UGR/OHR, shall be painted at the end of 2nd year and 4th year by the approved paint as per IS specification and direction of Engineer-in-charge.

(ii) The G.I./ MS pipes used for UGR/OGR laid over in head works & distribution system shall be painted every year after monsoon.
- e) The RCC UGR/OHT tank shall have to be disinfected in every year with proper cleaning.
- f) The pumps and motors installed in the production well shall be removed for overhauling in the manufacturer's approved service centre and to replace the worn out parts at the end of 2nd and 4th year and if required before that. The pump and motor to be replaced in case any major damage occurs and if the repair will be uneconomical as per the direction of engineer-in-charge.
- g) Replacement of taps fitted in standalone storage tank & stand posts must be made as and when complaint is received with the best quality GM/brass taps within 24 hours as it will lead to waste of water.

- h) The above maintenance activities are binding upon the Agency, in case of any failure or negligence in the part of the Agency to attend the complain the Department will take up the work under intimation to the Agency and action will be taken as per the condition of contract.
- 6.5.2 Breakdown maintenance shall mean the maintenance activity including repairs and replacement of any component or equipment of the all systems which is not covered by routine and preventive maintenance and which is required to be carried out as a result of sudden failure / breakdown of that particular component or equipment while the systems is running. The Agency shall be responsible to carry out breakdown maintenance of each and every component of the PWS systems and he shall provide the required manpower, materials, consumables, components or equipment etc. for breakdown maintenance at his own cost irrespective of the reasons of the breakdown/ failure.
- 6.5.3 Capital maintenance shall mean the major overhaul of any component or equipment of the PWS systems with which is not covered by routine, preventive and breakdown maintenance which may become necessary on account of damage due to any unforeseen reason which needs replacement. The capital maintenance of PWS systems and all civil structures shall normally be planned to be carried out on an annual basis. For this purpose a joint inspection by the Agency and Engineer-In-Charge shall be carried out of all the major components of systems, about two months in advance of the Annual Maintenance period. In order to ascertain as to which components of the systems require capital maintenance. In this regard the decision of the Engineer-In-Charge will be final and binding. However, if the condition of any systems and component warrants its capital maintenance at any other time, a joint inspection of the Agency & Engineer-In-Charge shall be carried out immediately on occurrence of such situation and capital maintenance shall be carried out. If required, in consultation with concerned authorities. The decision of the Engineer-In-Charge shall be final and binding.
- 6.5.4 All the security deposit and maintenance cost will be released to the Agency by the Executive Engineer only after recommendation of Junior Engineer / Assistant Engineer and Assistant Executive Engineer of concern RWS&S Divisions.
- 6.5.5 The Agency shall maintain a complaint register which shall be kept at pump house and any complaint received shall be attended within 24 hour. The deputed personnel shall be available in the pump house from 10.00 A.M to 1.30 P.M. to receive the complain
- 6.5.6 The Agency shall repair the following type of defects within 24hrs of receipt of complaint or shutdown of the scheme. The detail of complain to be entered in the complaint register.
- a) Leakage in PVC/GI/HDPE/DI/CI pipe line, Column pipe used for pump motor and for ESR/GSR.
 - b) Leakage in Valve & Stand post tap.

- c) Any type of internal electrical problem, problem in panel board, in Pump & motor, Cable etc.
- d) Damage made in pipe line due to any accident or road repair work or any other reasons.

6.5.7 Repair of PVC/GI/HDPE/DI/CI Pipeline with earth work in excavation & refilling the trench & making good of the road to pre-condition in case of any kind of built up road viz. (WBM/ concrete/RCC/ bituminous) road.

All the cost of labour, materials for repair and replacement during the maintenance period shall be borne by the Agency. The inside and outside of the structures constructed for the PWS project should be kept clean, free from bush and debris and to be a state-of- the-art project for the community.

6.6 Requirement of manpower for O&M

This is an indicative one. The bidder has to assess the same as per the requirement of the project for O&M works.

S No.	System component as per flow line	Category	Required number
1	Overall supervision of O&M of the system	Maintenance Engineer (Minimum qualification Diploma in Civil)	One person for 50 projects
2	Clear water Pump house with production well	1. Pump Operator 2. Watch man	For each pump house
3	Raw water pump house for surface source	1. Pump Operator 2. Watch man	For each pump house
4	Clear water pump house at WTP	1. Pump Operator 2. Watchman	For each clear water pump house
5	Raw water rising main	1. Fitter 2. Helper	For raw water rising main
6	WTP works	1. Valve Operator 2. Helper	For each WTP works.
7	Clear water rising main & distribution	1. Fitter 2. Helper	One number for clear water rising main
8	UGR/ OHT	1. Valve Operator	In case single village project, pump operator will function as valve operator

Check Lists for Operation and Maintenance

A regular schedule of inspection of machinery, equipment their lubrication and servicing programme must be prepared and circulated. Appropriate supervisory control should be exercised to see that these inspections, lubrications and servicing are being regularly carried out. Proper maintenance of pumping machinery needs a trained and skilled staff and should

be well conversant with the equipment. In several cases, a simple trouble which can be set right with a spanner by a skilled hand is converted into a major overhaul by unskilled or semiskilled hand.

The spare parts required for routine maintenance shall be procured well in advance to avoid unnecessary delay in carrying out repairs.

The operator should however be able to maintain log book properly and regularly indicating the fuel consumption, hours worked and quantity of water pumped etc., The log book of the equipment should also indicate the record of break downs and repairs, data wise and cost of repairs and consumption of fuel etc., This record would provide a fairly good idea and timely indication about the particular equipment being worn out, requiring major over-haul or replacement

1. Source & Intakes

- (i) Monitoring for inflows
- (ii) Monitoring for Drawals
- (iii) Quality of Raw Water
- (iv) Industrial & Domestic Discharge
- (v) Action plan for pre-chlorination of raw water

2. Transmission

- (i) Check for stock of spare pipes and specials and jointing materials for replacement
- (ii) Performance of Sluice valves, air valves, expansion joints, rollers
- (iii) Leak detection surveys
- (iv) Inspect record of break downs and to identify vulnerable lengths for special attention

3. Treatment Plant

- (i) Flow Meter
- (ii) Cleaned of silt
- (iii) Calibration and checking accuracy
- (iv) Servicing

4. Chemical Feeding Unit

- (i) Painting alum tanks
- (ii) Cleaning of V notch weirs and floats
- (iii) Spares for mixing unit
- (iv) Inspect Jar test facilities

5. Flash mixer

- (i) painting
- (ii) Spares for flash mixer

6. Flocculator

- (i) Painting
- (ii) Lubrication of mechanical devices
- (iii) Non-mechanical - desludging for every six months

7. Clarifier

- (i) Overhauling
- (ii) Painting prior to monsoon
- (iii) Condition of sludge lines
- (iv) Free movement of telescopic sludge device
- (v) Check for Alignment of wheels-rubber wheels may be replaced
- (vi) Outlet weirs (Biological growth - Algae growth)
- (vii) Efficiency of various units
- (viii) Trolley Wheels
- (ix) Lubricating
- (x) Reduction gear box
- (xi) Checking oil
- (xii) Turn table
- (xiii) Checking oil
- (xiv) Vehicle motors
- (xv) Cleaning of dust
- (xvi) Carbon brushes
- (xvii) Bearings
- (xviii) Rail / Track
- (xix) Gap between two rails and Alignments
- (xx) Rubber wheels - Wear & tear, alignment
- (xxi) MS Scrapper & Bolts and nuts

8. Rapid Gravity Filters

- (i) Check for water quality at various stages Daily Check for alum dose
- (ii) Check for washing

Note the readings regarding:

- (iii) Quantity of water received
- (iv) Quantity of water wasted
- (v) Quantity of filtered water produced
- (vi) Quantity of water consumed for back
- (vii) washing of filters
- (viii) Pressure gauge reading at blower
- (ix) Loss of head for filters just before wash & after wash
- (x) Rate of filtration
- (xi) Quality of filtered water
- (xii) Observation for any sand carried away
- (xiii) Adequate depth of water over filter media
- (xiv) Status of operation of valves
- (xv) Performance of blower
- (xvi) Uniform washing of bed by air and water

- (xvii) (search for dead pockets)
- (xviii) Check for sand depth & air binding
- (xix) Observe length of filter run and loss of head and compare
- (xx) Observe rate of filtration
- (xxi) Performance of filter regarding output & quality
- (xxii) Check the surface of filter media for cracks, encrustation of media, mud balls
slime growths
- (xxiii) Check for media depth
- (xxiv) Check performance of filters
- (xxv) Status of functioning of: Instrumentation, Valves, Blowers
- (xxvi) Check for corrosion of all underwater equipment

9. Chlorinators

Note the following readings:

- (i) Dosage of chlorine, Residual of chlorine and Pressure readings of chlorine
- (ii) In case of doser chlorinator, daily cleaning of the containers with fresh water.
- (iii) In case of electro chlorinators ,putting common salt as per requirement
- (iv) In case of batch method of electro chlorinator putting common salt as per requirement on daily basis and cleaning of reaction tank after supply of water
- (v) Cleaning of electrode on regular interval.
- (vi) Uninterrupted supply of water for chlorinator
- (vii) Check the incoming water lines
- (viii) Check the solution feeder lines
- (ix) Check the ventilation of chlorine house
- (x) Check the structural safety of chlorine house

10. Transformers (In case maintained by Department)

- (i) Oil level in transformer
- (ii) Relay alarm circuit
- (iii) Load (Amperes)
- (iv) Voltage
- (v) Bushings
- (vi) Dehydrating breathers
- (vii) Voltage tap changing switch
- (viii) Dielectric strength of oil
- (ix) AB switch contacts
- (x) Drop in fuse contacts
- (xi) All bus bars
- (xii) Earth resistance
- (xiii) Lightning arresters
- (xiv) Relays
- (xv) Oil in transformers
- (xvi) Once in 2 years
- (xvii) Painting to transformers, poles and fencing

11. Motors

Daily checks

- (i) Eliminate dirt (Less than 1 000 KVA)
- (ii) Oiling and greasing to avoid friction
- (iii) Check for vibration
- (iv) Check for tightness of contacts
- (v) Operation at rated voltage
- (vi) Check tripping elements to offer protection
- (vii) Inspect contact points for any deposition
- (viii) Clean the cabinet to remove dirt
- (ix) Check for fuse ratings
- (x) Check whether manufacturers recommendations are followed regarding
- (xi) Quality of oil and grease
- (xii) Correct periodical of lubrication
- (xiii) Check for performance of capacitors

12. Pumps

Daily Checks:

- (i) Timing of pump running
- (ii) Observe for leakges through stuffing box
- (iii) Bearing temperature
- (iv) Any undue noise or vibration
- (v) Readings of pressure, voltage and current

Half Yearly checks

- (vi) Free movement of the gland of stuffing box
- (vii) Cleaning and oiling of gland bolts
- (viii) Inspection of the gland packing
- (ix) Alignment of pump and drive
- (x) Cleaning of oil lubricated bearings/or grease lubricated and replacing oil and grease
- (xi) Clean and examine all bearings for flows

Annual Checks :

- (i) Examine shaft sleeves for wear or scour
- (ii) Check clearance at wearing ring
- (iii) Check impeller hubs and vane tips for pitting or erosion
- (iv) Calibration of all instruments and flow meters
- (v) Check performance of pump Q, H, KW and efficiency
- (vi) Check for availability of required tools
- (vii) Check for availability of lubricants and other consumables such as gland packing, bolts etc.
- (viii) Check for repair facilities such as pullers, clamps, machinery, welding set, grinder,
- (ix) blower, drilling machine etc.

- (x) Records to be kept on the Operations :
- (xi) Note the water levels in the SR s (for all compartments) at hourly intervals.
- (xii) Note the time and relevant operation of control valves with time of opening and closure or throttling position of the valves.
- (xiii) Note the hourly flow meter readings both on the inlets and outlets
- (xiv) Note the hourly residual chlorine readings of inflow water and outflow water
- (xv) Record on when the structure of the reservoir was last repaired to attend to structural defects or arrest leakage and the cost of materials and labour cost thereof
- (xvi) Record on when the reservoir was last cleaned and the cost of materials and labour cost thereof
- (xvii) Record on when the reservoir was last painted and the cost of materials and labour cost thereof
- (xviii) Record on when the piping at the reservoir was last painted and the cost of materials and labour cost thereof

13. Clear Water Sump and Service Reservoir (SR)

- (i) Check for proper closure of washout valves
- (ii) Check for functioning of Water level indicators
- (iii) Check for status of ventilators; whether Fly proof mesh over ventilators requires to be replaced
- (iv) Check for the status of Manhole covers; are they corroded ?
- (v) Check the water quality and find the necessity to clean and disinfect insides
- (vi) Check whether the roof of SR is clean and whether the surroundings of SR are clean
- (vii) Check whether the Operation of valves is smooth without any abrupt stoppage during closure
- (viii) Check for leakage through valves at gland, bolts or any other place
- (ix) Check whether closure of a valve results in complete stoppage of flow or if any flow passes the valve (passing valve)
- (x) Check for any structural damages to the reservoir especially whether the roof is corroded due to chlorination and assess the structural soundness of the reservoir
- (xi) Assess the status of ladder and railings whether corroded?
- (xii) Check for leakage through the structure of the SR
- (xiii) Check for leakage through interconnecting pipe work at the SR
- (xiv) Check for any signs of corrosion of interconnecting pipe work at the SR
- (xv) Inspect for any possibilities of pollution of the water stored in the reservoir
- (xvi) Status of out-fall drain for scour and overflow
- (xvii) Assess the need for painting of the reservoir and piping work
- (xviii) Assess the status of lightning arrestor where provided
- (xix) Check for the availability of consumables, spares and tools

14. Checks to be carried out in the distribution system:

- (i) Check whether the Operation of valves is smooth without any abrupt stoppage during closure
- (ii) Check whether closure of a valve results in complete stoppage of flow or if any flow passes the valve (passing valve)

- (iii) Check for status of scouring and then proper closure of washout valves
- (iv) Check for leaks through pipes
- (v) Check for leakage through valves at gland, bolts or any other place
- (vi) Check for leaks at the appurtenances
- (vii) Check for any signs of corrosion of pipelines
- (viii) Check for the status of Manhole covers over the chambers; are they corroded ?
- (ix) Inspect for any possibilities of pollution of the distribution system water stored
- (x) Status of out-fall drain for scour and overflow
- (xi) Assess the need for painting of the piping work
- (xii) Check for availability of spares for valves and pipes and jointing materials
- (xiii) Review the method of giving consumer connections in the field
- (xiv) Preparation of water budget for each zone
- (xv) served by one reservoir
- (xvi) Number of connections given
- (xvii) Status of Distribution System
- (xviii) Review of pressures
- (xix) Review of flows
- (xx) Study of inflows and outflows
- (xxi) Identify source of leakage
- (xxii) Unauthorised connections if any
- (xxiii) Review facilities for repair of consumer meters
- (xxiv) Availability of updated system map

6.7. Major Works

The items wise list of all major repair works has been mentioned below and rest all are minor works. For all major repair works, the Operator / Agency shall develop the necessary infrastructure and the payment of the same shall be made to the Agency by the Authority/ Government as per the latest Schedule of Rates (SOR) of Odisha.

Head Works

- Source failure
- Source Inadequacy
- Transformer damage
- Theft of conductor

Distribution line

- Damage of pipeline (necessitating replacement)

6.7. CHECK LIST FOR MAINTENANCE

Name of PWS:

Name of the contractor:

District/ Division:

Block/ GP/ Village:

Date of commission of the scheme:

Defect liability period from to

Agreement No.:

Maintenance period from to

Date of inspection/ reporting:

Name of person inspected/ reported:

Designation (not below the rank of JE/ AE):

1. Surrounding of pump house, intake well, OHT, WTP, UGR, clean & maintain
2. Painting & coloring done (once a every 2 years)
Month & year to be indicated
3. Log book updated:
4. Leakage in pipeline/ SV/ NRV noticed:
5. No. of stand post functioning:
6. Total no. of stand post:
7. No. of complaint received:
8. No. of complaint attended:
9. Adequate pressure at the highest level:

Yes	No
Yes	No
Yes	No
Yes	No

10. PWS out of order due to power failure:

Days

Years

11. PWS out of order due to mechanical & other failure:

Days

Years

Signature of JE/ AE

Verified & found correct & recommended for payment:

Signature of AE/ AEE/ DEE

Accepted for payment:

Signature of EE

NB: *In case AE/ AEE/ DEE do not agree to the report then he shall return the report to the reporting officer with reason.*

6.8. Exit Management

At the end of the contract, the Agency has to support an orderly, controlled transition of responsibility for the provision of the services to the new Agency without any disruption in the services to RWSS. The Agency is required to submit the Exit Management Plan 6 months before the completion of the contract. The Exit Management Plan shall be based on mutually agreed terms between Agency and RWSS.

6.9. Consideration

- (a) The Client (RWS&S, Odisha) do hereby agree that if the an Agency shall duly implement the project in the manner aforesaid, observe and keep the said terms and conditions then the Client will pay or cause to be paid to the Agency at the time and in the manner set forth in the said terms.
- (b) The payment pattern will be as specified below-
 - (i) The payment will be made on monthly basis subject to the submission of correct and complete invoice along with supporting by the Agency. The Agency will raise its invoice on monthly basis at contracted rate to RWS&S, Odisha by 1st week of next month.
 - (ii) On receipt of the statement of claim, concerned section/cell under RWS&S, Odisha shall study the correctness and completeness of the claim and supporting documents. All adjustments on the ground of penalty or short performance shall be calculated and recorded properly. The concerned section/cell shall complete the verification in 7 working days and issue a deficiency note, if any to the Agency. On receipt of the same, the Agency shall revert rectifying the deficiencies and submit the final claim to RWS&S, Odisha.
 - (iii) Within 15 days of submission of final claim with required supporting documents and duly scrutinized by the concerned Section/ Cell, RWS&S will release the payment.

FORMS & FORMATS

ANNEXURE-1

FORMAT FOR FINANCIAL PROPOSAL

Dated:

To,
The Engineer-In-Chief, RWS&S
Jal 'O' Parimal Bhawan,
Unit-5, Bhubaneswar - 751001
Office Phone: (0674) 2395734

Sub: Request For Proposal (RFP) for "Selection of Agency for Operation & Maintenance of Rural Piped Water Supply Works for Bhubaneswar Division pertaining to Khurda District in the State of Odisha"

(a) We, the undersigned, offer to provide above service in accordance with your RFP. Our Financial proposal for project is given as below;

S. No	Description	Rate inclusive of all expenditure (Capital and Recurring)	Applicable Taxes or Levies, if any.	Total (Amount in Rs.)
1	O&M Cost for Year 1			
2	O&M Cost for Year 2			
3	O&M Cost for Year 3			

(b) Our financial proposal shall be binding upon us subject to any modifications resulting from contract negotiations, up to the expiration of the validity period of the proposal, i.e.....(date).

(c) We undertake in competing for and, if the award is made to us, in executing the above services, we will strongly observe the laws against fraud and corruption to force in India namely Prevention of Corruption Act 1988. We understand that you are not bound to accept any proposal you receive.

Yours sincerely,
Authorized Signature:
(Name, Designation and Address)

COVERING LETTER (TECHNICAL PROPOSAL)

**Letter of Proposal
(On Applicant s Letter Head)**

Dated:

To,
**The EIC, RWS&S
Jal 'O' Parimal Bhawan,
Unit-5, Bhubaneswar - 751001**

Sub: Request For Proposal (RFP) for Selection of Agency for Operation & Maintenance of Rural Piped Water Supply Works for Bhubaneswar Division pertaining to Khurda District in the State of Odisha”.

Dear Sir,

- a) With reference to your RFP document No._____dated _____, I/we, having examined the Bidding Documents and understood their contents, hereby submit my/our Proposal for the aforesaid Project. The Proposal is unconditional and unqualified.
- b) All information provided in the Proposal and in the Annexure to that is true and correct.
- c) This statement is made for the express purpose of qualifying as an Applicant for undertaking the Project.
- d) I/ We shall make available to the Authority/Department any additional information it may find necessary or require to supplement or authenticate the proposal.
- e) I/ We acknowledge the right of Authority/Department to reject our Proposal without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.
- f) We certify that in the last three years, we have neither failed to perform on any contract, as evidenced by imposition of a penalty or a judicial pronouncement or arbitration award, nor been expelled from any project or contract nor have had any contract terminated for breach on our part.
- g) I/ We declare that:
 - (b) I/ We have examined and have no reservations to the RFP Documents, including any Addendum issued by the Authority.
 - (c) I/ We hereby certify that we have taken steps to ensure that, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent

practice, coercive practice, undesirable practice or restrictive practice.

- h) I/ We declare that we are not a Member of a/ any other firm submitting a Proposal for the Project.
- i) I/ We certify that in regard to matters other than security and integrity of the country, we have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
- j) I/ We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.
- k) We further certify that no investigation by a regulatory authority is pending either against us or against our Associates or against our CEO or any of our Directors/ Managers/ employees.
- l) In the event of my/ our being declared as the successful, I/We agree to enter into an Agreement in accordance with the draft that has been provided to in the RFP document. We agree not to seek any changes in the aforesaid draft and agree to abide by the same.
- m) The Fee has been quoted by me/us after taking into consideration all the terms and conditions stated in the RFP.
- n) I/We undertake to provide Performance Security of amount equivalent to 5% of the contract value in case the contract being awarded to us.
- o) The Proposal Cost of Rs. 10,000/- in the form of a Demand Draft (DD no. ----- dated ----- drawn on -----, ----- Branch) is attached.
- p) The EMD of Rs. 5,00,000 (Rupees Five Lakhs) in the form of in the shape of Postal Savings Pass Book/ NSC/ Post Office Time Deposit Account/ Kissan Vikash Patra/ Deposit Receipt in Nationalized/ Scheduled Bank duly pledged in favor of "Engineer-in-Chief, RWSS Odisha, Bhubaneswar".
- q) I/We agree and understand that the Proposal is subject to the provisions of the RFP Documents. In no case, I/We shall have any claim or right of whatsoever nature if the Project is not awarded to me/us or our Proposal is not opened.
- r) I/We agree to keep this offer valid for 180 (one hundred and eighty) days from the Proposal Due Date specified in the RFP.
- s) I/We agree and undertake to abide by all the terms and conditions of the RFP document. In witness thereof, I/we submit this Proposal under and in accordance with the terms of the RFP document.

Yours faithfully,

Date: (Signature of the Authorized signatory)

Place: (Name and designation of the of the Authorized signatory)

Name and seal of Bidder

PARTICULARS OF THE APPLICANT

1. NAME OF THE FIRM:

2. REGISTERED OFFICE:

4. DATE OF INCORPORATION:

5. CONSTITUTION OF THE FIRM:

6. Names of Govt. Dept. / Public Sector undertaking /International clients to whom the bidder has provided similar services, if any:

7. MAIN BUSINESS ACTIVITIES:

8. DETAILS OF MAIN BRANCHES:

9. Annual turnover of the Firm (in INR) from Similar Assignments in India during last three Financial Years. (Please attach copy of the Audited Financial Statements and Statutory Auditor's Certificate clearly specifying the annual turnover for the specified years)

2015-2016:

2016-2017:

2017-2018:

10. DETAILS OF CONTACT PERSONS

NAME:

DESIGNATION:

CONTACT TEL. NO:

MOBILE NO:

FAX NO:

EMAIL ID:

POSTAL ADDRESS:

(Signature of Authorized signatory)

ANNEXURE-4

DECLARATION BY BIDDER

I / We agree that we shall keep our price valid for a period of one year from the date of approval. I / We will abide by all the terms & conditions set forth in the tender documents No. /

I / We do hereby declare I / We have not been de- recognized / black listed by any State Govt. / Union Territory / Govt. of India / Govt. Organisation / Govt. Health Institutions.

Signature of the Applicant:

Date

Name & Address of the Firm:

Affidavit before Executive Magistrate / Notary Public in Rs.50.00 stamp paper.

ANNEXURE-5

PROFORMA FOR BANK GUARANTEE

To,
**The EIC, RWS&S,
Jal 'O' Pariamal Bhawan,
Unit-5, Bhubaneswar - 751001
Office Phone: (0674) 2395734**

WHEREAS.....(Name and address of the Agency)
(Hereinafter called "Agency" has undertaken, in pursuance of contract No.....
dated (Herein called "the Contract") to _____.

AND WHEREAS it has been stipulated by you in the said contract that the Agency shall furnish you with a bank guarantee by a scheduled commercial bank recognized by you for the sum specified therein as security for compliance with its obligations in accordance with the contract;

AND WHEREAS we have agreed to give such a bank guarantee on behalf of the Agency;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of the Agency, up to a total of..... (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the Agency to be in default under the contract and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Agency before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the Agency shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to 24 (fifteen) months from the date of signing of contract i.e. up to..... (Indicate date)

.....
(Signature with date of the authorized officer of the Bank)

.....
Name and designation of the officer

.....
Seal, name & address of the Bank and address of the Branch

ANNEXURE-6

PERFORMANCE STANDARDS

1. Water Quality Parameters

The Agency has to provide dis-infected water. The residual at the tail end should be at least 0.2ppm.

2. Service Level Parameter

S No.	Parameters	Standards
1	Hours of operation	At-least 4 hours (minimum 2 hours in morning & evening) daily
2	Flow Discharge	Flow should be 10 ltr/minute at any given point of time
3	Supply of water	40 lpcd (at the pump house outlet)
4	Complaint Management System	At least 80% of the complaints received should be attained within 24 hours and resolved within 72 hours of registration

3. Penalties

S No.	Description	Penalty Imposed
1	Penalty for not meeting the water quality parameters	0.5% of monthly O&M Cost
2	Penalty for not meeting the hours of supply of water as per the SLB	1.0% of monthly O&M Cost
3	Penalty for not meeting the flow of discharge as per the SLB	0.5% of monthly O&M Cost
4	Penalty for not meeting the supply of water as per the SLB	0.5% of monthly O&M Cost
5	Penalty for breakdown of WTP	Beyond 48 hours, 0.5% of monthly O&M Cost
6	Penalty for breakdown of pumping stations, pumps etc.	Beyond 24 hours, 0.5% of monthly O&M Cost
7	Penalty for breakdown/ leakages in pipelines	Beyond 48 hours, 0.5% of monthly O&M Cost

Details of the Project/ Schemes to be covered for O&M under the Contract

(Enclosed in next page)

Format for Details of Existing Water Supply Schemes

Sl. No.	Block	Name of Scheme	Type of Source	Number of Sources	Quantity of water supplied (per day) in Ltr	UGR Capacity (Yes/No)	OHT Capacity (Yes/No)	Rising Main Category	Type of Pipe	Length of pipeline in mtr	Type of Pump	Type of Treatment	No. of HH connections	No. of Standposts	Population (2011)
1	Baliana	Alarapur	PW	1	47640			GI/ PVC	GI/ PVC	2000	Submerssible	IRP	49	11	907
2	Baliana	Anantapur	PW	1	144400	50000		GI/ PVC	GI/ PVC	9150	Submerssible	IRP	80	45	1769
3	Baliana	Anthury	PW	1	77200			GI/ PVC	GI/ PVC	2400	Submerssible	IRP	86	15	1675
4	Baliana	Atala & Saleswara	PW	1	62400			GI/ PVC	GI/ PVC	4000	Submerssible		66	23	631
5	Baliana	Badachhelipatna & its adj.	PW	1	285720	120000		GI/ PVC	GI/ PVC	12850	Submerssible	IRP	101	45	7790
6	Baliana	Bainchua & Bhelurihat	PW	1	259280	120000		GI/ PVC	GI/ PVC	5250	Submerssible	IRP	482	45	6324
7	Baliana	Baliana	PW	1	264000			GI/ PVC	GI/ PVC	6645	Submerssible	IRP	116	60	4112
8	Baliana	Benupur	PW	2	220600	120000		GI/ PVC	GI/ PVC	8560	Submerssible		29	35	5188
9	Baliana	Bhingarpur	PW	3	285600		100000	GI/ PVC	GI/ PVC	5525	Submerssible	IRP	100	73	5965
10	BALIANTA	BHINGARPUR(PAN DA SAHI)AUG)	PW	1	46280			GI/ PVC	GI/ PVC	3800	Submerssible	IRP	30	20	757
11	Baliana	Bhubanpur	PW	1	218000	100000		GI/ PVC	GI/ PVC	3000	Submerssible	IRP	150	25	2467
12	Baliana	Bishuniapada	PW	1	59520	50000	100000	GI/ PVC	GI/ PVC	1800	Submerssible	IRP	59	45	1062
13	Baliana	Bodhakhandi	PW	3	191000	100000		GI/ PVC	GI/ PVC	8200	Submerssible		173	45	3366
14	Baliana	Brhamanasuanlo	PW	2	49760		100000	GI/ PVC	GI/ PVC	1500	Submerssible	IRP	19	10	1917
15	Baliana	Budhapada	PW	1	84680			GI/ PVC	GI/ PVC	2700	Submerssible	IRP	48	20	1570
16	Baliana	Chadeibara	PW	1	61760			GI/ PVC	GI/ PVC	1500	Submerssible		44	20	1139
17	Baliana	Chhandolo	PW	1	115040			GI/ PVC	GI/ PVC	5900	Submerssible	IRP	20	20	1280
18	Baliana	Dedhala	PW	1	35560		100000	GI/ PVC	GI/ PVC	2300	Submerssible		59	10	763
19	Baliana	Dhamilo	PW	1	91920			GI/ PVC	GI/ PVC	7700	Submerssible	IRP	12	20	511
20	Baliana	Hirapur	PW	1	112480			GI/ PVC	GI/ PVC	2600	Submerssible		20	20	2437
21	Baliana	Jagannathpur & Jayarisan	PW	1	226880			GI/ PVC	GI/ PVC	7300	Submerssible	IRP	182	35	3774
22	Baliana	Janmejyapur	PW	1	31400			GI/ PVC	GI/ PVC	2200	Submerssible		50	15	775
23	Baliana	Jasuapur	PW	1	87200	50000		GI/ PVC	GI/ PVC	3900	Submerssible	IRP	52	30	1966
24	Baliana	Jhinti Sasana	PW	1	404720	100000		GI/ PVC	GI/ PVC	10100	Submerssible			45	3242
25	Baliana	Jhintisan & its adj	PW	1	400320		100000	GI/ PVC	GI/ PVC	10223	Submerssible	IRP	7	40	250
26	Baliana	Jitikarsuanlo	PW	1	131920	50000		GI/ PVC	GI/ PVC	4400	Submerssible	IRP	148	38	1902
27	Baliana	Kenduli	PW	1	51240			GI/ PVC	GI/ PVC	3480	Submerssible			20	991
28	Baliana	Mahukhanda	PW	1	231120	100000		GI/ PVC	GI/ PVC	9650	Submerssible	IRP	113	45	3593
29	Baliana	Nagpursasan	PW	1	54080			GI/ PVC	GI/ PVC	1300	Submerssible		35	20	1241
30	Baliana	Pariapatpur	PW	1	201600			GI/ PVC	GI/ PVC	6400	Submerssible	IRP	32	35	2744
31	Baliana	Prataprudrapur	PW	1	141640			GI/ PVC	GI/ PVC	5150	Submerssible	IRP	13	30	2756
32	Baliana	Pratapsasan	PW	3	624000		120000	GI/ PVC	GI/ PVC	11000	Submerssible		300	90	10937

Sl. No.	Block	Name of Scheme	Type of Source	Number of Sources	Quantity of water supplied (per day) in Ltr	UGR Capacity (Yes/No)	OHT Capacity (Yes/No)	Rising Main Category	Type of Pipe	Length of pipeline in mtr	Type of Pump	Type of Treatment	No. of HH connections	No. of Standposts	Population (2011)
33	Balianta	Puranasasan	PW	1	95640			GI/ PVC	GI/ PVC	3700	Submerssible	IRP		20	856
34	Balianta	Purohitpur	PW	1	86440			GI/ PVC	GI/ PVC	3700	Submerssible	IRP	44	10	1827
35	Balianta	Ramchandrapur	PW	3	154040	100000		GI/ PVC	GI/ PVC	6700	Submerssible	IRP	130	30	2387
36	Balianta	Ranapur & Kaijanga	PW	1	76800			GI/ PVC	GI/ PVC	4250	Submerssible		62	25	2017
37	Balianta	Sarakana	PW	1	137640			GI/ PVC	GI/ PVC	725	Submerssible		24	25	2425
38	Balianta	Satakania	Open Well	1	61760			GI/ PVC	GI/ PVC	4500	Submerssible		40	25	520
39	Balianta	Satyabhampur	PW	2	225320			GI/ PVC	GI/ PVC	6725	Submerssible		114	45	3196
40	Balianta	Subalo	PW	2	74840			GI/ PVC	GI/ PVC	4950	Submerssible	IRP	64	35	1143
41	Balianta	Sudhasarangi	PW	1	27560			GI/ PVC	GI/ PVC	1500	Submerssible		22	10	479
42	BALIANTA	UPPERSAHI	PW	1	109600	50000		GI/ PVC	GI/ PVC	3050	Submerssible	IRP	109	22	2370
43	Balipatna	ABHAYMUKHI	PW	1	206400	100000		GI/ PVC	PVC/MS	2650	Submerssible		227	30	2706
44	Balipatna	Amanakuda	PW	1	189520	100000		GI/ PVC	GI/ PVC	6050	Submerssible	IRP	55	42	2579
45	Balipatna	Athantara	PW	1	96240	50000		GI/ PVC	PVC/MS	2400	Submerssible	IRP	108	30	7750
46	Balipatna	Badalsasan	PW	1	68240			GI/ PVC	PVC/MS	3730	Submerssible		18	29	1172
47	Balipatna	Bhagalpur	PW	1	87120			GI/ PVC	PVC/MS	2250	Submerssible		2	16	832
48	Balipatna	Balipatna	PW	1	198000	50000	100000	GI/ PVC	GI/ PVC	8810	Submerssible		11	83	5048
49	Balipatna	Bhairpur	PW	1	84480			GI/ PVC	GI/ PVC	2400	Submerssible		20	9	3093
50	Balipatna	Biswalpada	PW	1	105280	50000		GI/ PVC	PVC/MS	4945	Submerssible		4	17	1594
51	Balipatna	Biswanathpur	PW	1	177120			GI/ PVC	PVC/MS	4850	Submerssible	IRP	66	30	1589
52	Balipatna	Charipadgarh	PW	1	556400			GI/ PVC	PVC/MS	13273	Submerssible	IRP	120	18	3289
53	Balipatna	Darada	PW	1	86480	50000		GI/ PVC	GI/ PVC	3125	Submerssible	IRP	14	24	1338
54	Balipatna	Deulidharpur	PW	1	55800	50000		GI/ PVC	GI/ PVC	4280	Submerssible	IRP	65	14	628
55	Balipatna	GIRINGA	PW	1	89640	50000		GI/ PVC	GI/ PVC	4070	Submerssible	IRP	129	20	1290
56	Balipatna	Guapur	PW	1	117000		100000	GI/ PVC	GI/ PVC	5300	Submerssible	IRP	23	35	1795
57	Balipatna	Khuliso	PW	1	55800			GI/ PVC	PVC/MS	12050	Submerssible	IRP	23	14	969
58	Balipatna	Kulantreagram	PW	1	195320		100000	GI/ PVC	PVC/MS	1250	Submerssible	IRP	7	17	1870
59	Balipatna	Kurujipur	PW	1	99200			GI/ PVC	PVC/MS	5630	Submerssible	IRP	7	26	1199
60	Balipatna	Mukundaspur	PW	1	185920			GI/ PVC	GI/ PVC	2500	Submerssible		7	21	2706
61	Balipatna	Marthapur	PW	1	197120	100000		GI/ PVC	GI/ PVC	6890	Submerssible		65	60	2438
62	Balipatna	Mundahanapatna	PW	1	51840	50000		GI/ PVC	PVC/MS	1380	Submerssible	IRP	2	7	712
63	Balipatna	Narada	PW	1	214840	100000		GI/ PVC	PVC/MS	7700	Submerssible	IRP	14	43	2106
64	Balipatna	Nuagaon	PW	1	90880	50000		GI/ PVC	GI/ PVC	750	Submerssible	IRP	4	30	1524
65	Balipatna	Prataprudrapur-2	PW	1	89280	50000		GI/ PVC	GI/ PVC	3610	Submerssible		26	10	253
66	Balipatna	Pubagada	PW	1	138960			GI/ PVC	GI/ PVC	1850	Submerssible		60	28	1873
67	Balipatna	Rajas	PW	1	316880	100000		GI/ PVC	PVC/MS	12700	Submerssible	IRP	4	57	3561
68	Balipatna	Sarat	PW	1	154080	50000		GI/ PVC	GI/ PVC	7600	Submerssible	IRP	12	22	2082
69	Balipatna	Somansasan	PW	1	103680			GI/ PVC	GI/ PVC	4400	Submerssible		20	20	1923

Sl. No.	Block	Name of Scheme	Type of Source	Number of Sources	Quantity of water supplied (per day) in Ltr	UGR Capacity (Yes/No)	OHT Capacity (Yes/No)	Rising Main Category	Type of Pipe	Length of pipeline in mtr	Type of Pump	Type of Treatment	No. of HH connections	No. of Standposts	Population (2011)
70	Balipatna	Sumudi	PW	1	57240	50000		GI/ PVC	GI/ PVC	4400	Submerssible	IRP	38	20	978
71	Balipatna	Turnitira	PW	1	95360		100000	GI/ PVC	GI/ PVC	4050	Submerssible		4	26	2211
72	Banpur	Ayatapur	PW	2	152600	100000		GI/ PVC	GI/ PVC	2990	Submerssible		188	21	2484
73	Banpur	Badapadar	PW	2	118800	100000		GI/ PVC	GI/ PVC	4800	Submerssible			26	1690
74	Banpur	Beruanbari	PW	2	89480	50000		GI/ PVC	GI/ PVC	2700	Submerssible		3	16	1051
75	Banpur	Bhapur	PW	2	60000	50000		GI/ PVC	GI/ PVC	1750	Submerssible			16	567
76	Banpur	Bhatapada	PW	2	168000	50000		GI/ PVC	GI/ PVC	3600	Submerssible			21	466
77	Banpur	Deogaon	PW	4	232160		50000	GI	GI/ PVC	6590	Submerssible		184	16	2510
78	Banpur	Dikhitapada	PW	1	42320		50000	GI/ PVC	GI/ PVC	1120	Submerssible		22	10	548
79	Banpur	Ekadalia	PW	2	41640	50000		GI/ PVC	GI/ PVC	1830	Submerssible		63	22	999
80	Banpur	Godijhar	PW	2	74000			GI/ PVC	GI/ PVC	2310	Submerssible			13	2265
81	Banpur	GOPINATHPUR	PW	2	84000	50000		GI/ PVC	GI/ PVC	2950	Submerssible		116	16	1268
82	Banpur	Goradajhari	PW	2	107080			GI/ PVC	GI/ PVC	1830	Submerssible			23	2161
83	Banpur	Gurupada	PW	2	65400	50000		GI/ PVC	GI/ PVC	1800	Submerssible		79	10	903
84	Banpur	Halanda	PW	2	89280		100000	GI/ PVC	GI/ PVC	3030	Submerssible			16	1913
85	Banpur	Harichandanpur	PW	2	177280	50000		GI/ PVC	GI/ PVC	2280	Submerssible		112	12	1446
86	Banpur	Jagabandhupur	PW	2	30000			GI/ PVC	GI/ PVC	1430	Submerssible		9	26	1591
87	Banpur	Jibandeipur	PW	2	34000	50000	30000	GI/ PVC	GI/ PVC	1210	Submerssible			12	755
88	Banpur	Khanata	PW	2	88800	50000		GI/ PVC	GI/ PVC	1820	Submerssible		70	12	894
89	Banpur	KULEI	PW	4	297920	100000		GI/ PVC	GI/ PVC	1032	Submerssible		44	60	3014
90	Banpur	Kumaranga	PW	2	37760	50000		GI/ PVC	GI/ PVC	1330	Submerssible		62	22	692
91	Banpur	Moramori	PW	2	124000	100000		GI/ PVC	GI/ PVC	2970	Submerssible			25	1953
92	Banpur	Nachuni	PW	2	119920			GI/ PVC	GI/ PVC	2860	Submerssible		100	28	1470
93	Banpur	Nandapur	PW	4	210600	50000		GI/ PVC	GI/ PVC	4350	Submerssible			43	3276
94	Banpur	Niradripasad	PW	2	69600			GI/ PVC	GI/ PVC	4950	Submerssible		45	18	506
95	Banpur	Pratap	PW	2	103120	50000		GI/ PVC	GI/ PVC	3200	Submerssible			32	1632
96	Banpur	RANIPADA	PW	2	188000	100000		GI/ PVC	GI/ PVC	2450	Submerssible			21	2890
97	Banpur	Sana hantuada	PW	2	75040			GI/ PVC	GI/ PVC	1140	Submerssible		110	22	2879
98	Banpur	Sunakera	PW	2	91160	50000		GI/ PVC	GI/ PVC	1850	Submerssible		5	19	1638
99	Banpur	Sunakhala	PW	3	64000	50000		GI/ PVC	GI/ PVC	1410	Submerssible	IRP		16	1099
100	Banpur	Trilochanpur	PW	2	76720		50000	GI/ PVC	GI/ PVC	1700	Submerssible		91	18	1441
101	Banpur	TUMURAPUT	PW	2	70200	50000		GI/ PVC	GI/ PVC	2630	Submerssible			32	976
102	Banpur	Veteswar	PW	2	135040	100000		GI/ PVC	GI/ PVC	2300	Submerssible	IRP	95	22	2374
103	Begunia	Akhupadar & its adj.	PW	2	95520	50000		GI/ PVC	GI/PVC	4210	Submerssible		5	18	211
104	Begunia	Atri	PW	2	212000	100000		GI/ PVC	GI/PVC	9700	Submerssible	IRP	331	35	3435
105	Begunia	Badaberana	PW	2	124280	50000		GI/ PVC	GI/PVC	720	Submerssible		139	26	2067
106	Begunia	Badatulasipur	PW	2	144000	50000		GI/ PVC	GI/PVC	2800	Submerssible			24	2313
107	Begunia	Baghamari	PW	2	178600			GI/ PVC	GI/PVC	6000	Submerssible		310	40	3851

Sl. No.	Block	Name of Scheme	Type of Source	Number of Sources	Quantity of water supplied (per day) in Ltr	UGR Capacity (Yes/No)	OHT Capacity (Yes/No)	Rising Main Category	Type of Pipe	Length of pipeline in mtr	Type of Pump	Type of Treatment	No. of HH connections	No. of Standposts	Population (2011)
108	Begunia	Basudevpur & its	PW	2	104280	500000		GI/ PVC	GI/PVC	4580	Submerssible			18	1112
109	Begunia	Begunia	PW	2	244000	100000	100000	GI/ PVC	GI/PVC	6935	Submerssible		255	40	5345
110	Begunia	Bengitangi	PW	2	50280	50000		GI/ PVC	GI/PVC	2700	Submerssible			20	886
111	Begunia	Bhogada	PW	2	138000	50000		GI/ PVC	GI/PVC	6750	Submerssible		32	20	1988
112	BEGUNIA	BOTALAMA	PW	2	87240	100000	50000	GI/ PVC	GI/PVC	4600	Submerssible		48	25	802
113	Begunia	Chandipala.	PW	2	71880			GI/ PVC	GI/PVC	1790	Submerssible		30	12	1062
114	BEGUNIA	CHHATRAPADA	PW	2	91720	50000		GI/ PVC	GI/PVC	3000	Submerssible			8	1493
115	Begunia	Chotipalanga	PW	2	42480	50000		GI/ PVC	GI/PVC	1950	Submerssible			54	892
116	Begunia	Dangarpada	PW	2	54720	50000		GI/ PVC	GI/PVC	2000	Submerssible			8	804
117	BEGUNIA	DEULI	PW	2	71880	50000	50000	GI/ PVC	GI/PVC	3500	Submerssible		42	25	790
118	Begunia	Dingar	PW	2	136000	150000		GI/ PVC	GI/PVC	3205	Submerssible		49	14	1866
119	BEGUNIA	DURGAPUR	PW	2	103440	100000	50000	GI/ PVC	GI/PVC	7400	Submerssible		45	25	1158
120	Begunia	Goudiapada	PW	2	61440	50000		GI/ PVC	GI/PVC	2200	Submerssible			11	345
121	Begunia	Gobindapur	PW	2	140000	50000		GI/ PVC	GI/PVC	3780	Submerssible		58	25	569
122	Begunia	Gobindapur Swaj	PW	2	77880	50000		GI/ PVC	GI/PVC	1400	Submerssible		15	8	570
123	Begunia	Godi	PW	1	76840	50000		GI/ PVC	GI/PVC	1685	Submerssible			10	932
124	Begunia	Haja	PW	2	156000	50000		GI/ PVC	GI/PVC	4550	Submerssible		38	30	2398
125	Begunia	Hirapur	PW	2	84400		100000	GI/ PVC	GI/PVC	550	Submerssible			12	1420
126	Begunia	Jaganathpur	PW	2	72080	50000		GI/ PVC	GI/PVC	2510	Submerssible			30	425
127	Begunia	Jalabar	PW	2	44400	50000		GI/ PVC	GI/PVC	2400	Submerssible			14	758
128	Begunia	Kalarajhara	PW	2	79880	50000		GI/ PVC	GI/PVC	3675	Submerssible			20	1141
129	Begunia	Kantamalima	PW	2	109400	100000		GI/ PVC	GI/PVC	4800	Submerssible			40	2455
130	Begunia	Karadagadia	PW	2	84360	50000		GI/ PVC	GI/PVC	4150	Submerssible			20	1602
131	Begunia	Kendupalli	PW	2	57200	50000		GI/ PVC	GI/PVC	4100	Submerssible			15	1434
132	Begunia	Khadipadar	PW	2	72480	100000		GI/ PVC	GI/PVC	870	Submerssible			14	903
133	Begunia	Kunjuri	PW	1	60000	50000		GI/ PVC	GI/PVC	1616	Submerssible		34	18	934
134	Begunia	Kuradhilo	PW	2	72000	50000		GI/ PVC	GI/PVC	2750	Submerssible			16	1297
135	BEGUNIA	KURUMA	PW	2	53200	50000		GI/ PVC	GI/PVC	2850	Submerssible		26	16	1153
136	Begunia	Kuspalla	PW	2	175960			GI/ PVC	GI/PVC	1800	Submerssible			20	1449
137	Begunia	Lalitdeipur	PW	2	96000	50000		GI/ PVC	GI/PVC	2240	Submerssible			20	1497
138	Begunia	Manitri	PW	2	72400	50000		GI/ PVC	GI/PVC	3750	Submerssible			20	1059
139	Begunia	Manapurpatna	PW	2	24400	50000		GI/ PVC	GI/PVC	1330	Submerssible			14	414
140	Begunia	Muktapur	PW	2	46000			GI/ PVC	GI/PVC	1230	Submerssible		36	15	935
141	Begunia	Mukundapur	PW	2	79560	50000		GI/ PVC	GI/PVC	2500	Submerssible			20	1987
142	Begunia	Niamuhan	PW	2	164360	100000	100000	GI/ PVC	GI/PVC	6850	Submerssible			40	1505
143	Begunia	Nidhipur	PW	2	54000	50000		GI/ PVC	GI/PVC	3720	Submerssible			22	1503
144	Begunia	Nilakanthapur	PW	2	90000	50000		GI/ PVC	GI/PVC	3700	Submerssible			20	1674
145	Begunia	Pangarsingh	PW	2	82400	50000		GI/ PVC	GI/PVC	4175	Submerssible		57	24	1580

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146	Begunia	Parichal	PW	2	54000	50000		GI/ PVC	GI/PVC	2100	Submerssible			20	1479
147	Begunia	Patanibar	PW	2	48800	50000		GI/ PVC	GI/PVC	3310	Submerssible			40	1213
148	Begunia	Radhakantapur	PW	2	122560	50000		GI/ PVC	GI/PVC	5830	Submerssible			20	2853
149	Begunia	Radhamohanpur	PW	2	86000	100000		GI/ PVC	GI/PVC	3150	Submerssible		36	30	1351
150	Begunia	Routpada	PW	2	114400	50000		GI/ PVC	GI/PVC	6875	Submerssible			24	2196
151	Begunia	Sagadabhanga	PW	2	58800	50000		GI/ PVC	GI/PVC	1650	Submerssible			20	1054
152	Begunia	Sarua	PW	2	168000	50000	100000	GI/ PVC	GI/PVC	5630	Submerssible		149	34	3218
153	Begunia	Siko (Chhima)	PW	1	328720		80000	GI/ PVC	GI/PVC	7470	Submerssible			40	5295
154	BEGUNIA	SIMAR	PW	2	146240	100000	50000	GI/ PVC	GI/PVC	6500	Submerssible		69	25	2659
155	Begunia	Suanlo	PW	1	94040	50000		GI/ PVC	GI/PVC	5290	Submerssible			24	1071
156	Begunia	Talagada	PW	2	66000	100000		GI/ PVC	GI/PVC	2750	Submerssible		56	20	1132
157	Bhubaneswar	Andharua	PW	2	350720	50000		GI/ PVC	GI/ PVC	5535	Submerssible		47	30	2822
158	Bhubaneswar	Basuaghai	PW	1	229480	100000		GI/ PVC	GI/ PVC	3900	Submerssible		24	25	2592
159	Bhubaneswar	BASUAGHAI (BASTI)	PW	1	278200			GI/ PVC	GI/ PVC	3605	Submerssible			30	23
160	Bhubaneswar	Chandaka	PW	1	337000	150000		GI/ PVC	GI/ PVC	4510	Submerssible		265	50	5184
161	Bhubaneswar	Dadha	PW	2	142240	200000		GI/ PVC	GI/ PVC	3762	Submerssible		65	25	1601
162	Bhubaneswar	Daruthenga	PW	1	280000	30000		GI/ PVC	GI/ PVC	3900	Submerssible		52	30	4278
163	Bhubaneswar	Daspur	PW	2	122760	100000		GI/ PVC	GI/ PVC	2180	Submerssible		93	15	1387
164	Bhubaneswar	Dhauli	PW	2	121800	100000	100000	GI/ PVC	GI/ PVC	3900	Submerssible		90	25	5401
165	Bhubaneswar	Durgapurpatna	PW	1	49200			GI/ PVC	GI/ PVC	1250	Submerssible		25	15	801
166	Bhubaneswar	Ghangapatna	PW	1	92920	50000		GI/ PVC	GI/ PVC	1700	Submerssible			10	794
167	Bhubaneswar	Giringaput	PW	1	70680	50000		GI/ PVC	GI/ PVC	1520	Submerssible			10	1260
168	Bhubaneswar	Itipur	PW	2	190000	100000		GI/ PVC	GI/ PVC	3520	Submerssible		17	25	4776
169	Bhubaneswar	Kalyanpur	Intake well	1	1220000	200000		GI/ PVC	GI/ PVC	3390	Submerssible		21	30	11030
170	Bhubaneswar	Kantabada	PW	2	132800			GI/ PVC	GI/ PVC	4530	Submerssible		100	19	2150
171	Bhubaneswar	Kesura	PW	1	329240	200000	100000	GI/ PVC	GI/ PVC	3770	Submerssible		119	30	4382
172	Bhubaneswar	MOHABHOISASAN	PW	2	105400	50000		GI/ PVC	GI/ PVC	2570	Submerssible			15	440
173	Bhubaneswar	Mahura	PW	2	43360	100000		GI/ PVC	GI/ PVC	1830	Submerssible		5	11	565
174	Bhubaneswar	Malipada	PW	1	83400			GI/ PVC	GI/ PVC	2330	Submerssible			20	1507
175	Bhubaneswar	Marchia & Jhinkardiha	PW	1	91360			GI/ PVC	GI/ PVC	1750	Submerssible		114	15	1414
176	Bhubaneswar	Mendhasal	PW & Open Well	2	237040			GI/ PVC	GI/ PVC	2300	Submerssible		38	22	4184
177	Bhubaneswar	Nanput	PW	1	75600			GI/ PVC	GI/ PVC	3830	Submerssible		15	15	1293
178	Bhubaneswar	Raghunathapur (Nathapur)	PW	2	424760	10000		GI/ PVC	GI/ PVC	2087	Submerssible		56	25	3953

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179	Bhubaneswar	Padasahi	PW	2	166320			GI/ PVC	GI/ PVC	5515	Submerssible		60	15	1911
180	Bhubaneswar	Padmakesharipur	PW	1	30160			GI/ PVC	GI/ PVC	2450	Submerssible		26	10	4998
181	Bhubaneswar	Paikarpur	PW	2	113400		100000	GI/ PVC	GI/ PVC	3990	Submerssible			25	1959
182	Bhubaneswar	Pathargadia	PW	1	90920			GI/ PVC	GI/ PVC	4000	Submerssible			15	345
183	Bhubaneswar	Patarapada	PW	2	117600	100000		GI/ PVC	GI/ PVC	3200	Submerssible			30	6864
184	Bhubaneswar	Raghunathpur	PW	1	54000			GI/ PVC	GI/ PVC	5075	Submerssible			25	1911
185	Bhubaneswar	Retanga	PW	1	66320			GI/ PVC	GI/ PVC	2700	Submerssible			15	1092
186	Bhubaneswar	Shymasunderpur	PW	1	67160			GI/ PVC	GI/ PVC	880	Submerssible		23	10	297
187	Bhubaneswar	Sisupalgarh	PW	2	434800	150000	100000	GI/ PVC	GI/ PVC	4200	Submerssible		128	30	3032
188	Bhubaneswar	Sundarpur	PW	1	16360			GI/ PVC	GI/ PVC	950	Submerssible		30	7	337
189	Bhubaneswar	Tamando	PW	2	222080	100000		GI/ PVC	GI/ PVC	9530	Submerssible		183	30	4324
190	Bhubaneswar	Tikarpada	PW	2	171200	100000		GI/ PVC	GI/ PVC	6710	Submerssible		36	30	3067
191	Bolgarh	Arakhapalli	PW	2	158000			GI/ PVC	GI/ PVC	3585	Submerssible		2	16	2883
192	Bolgarh	Asanpalli	PW	2	35840	50000		GI/ PVC	GI/ PVC	1000	Submerssible		3	15	735
193	Bolgarh	Asalaradala	PW	2	189600	100000		GI/ PVC	GI/ PVC	3975	Submerssible			33	1659
194	Bolgarh	Badakumari	PW	2	101760	50000		GI/ PVC	GI/ PVC	3000	Submerssible		5	20	3090
195	Bolgarh	Bankoi	PW	2	200000	50000		GI/ PVC	GI/ PVC	3084	Submerssible			20	3220
196	Bolgarh	Barabati	PW	2	42720			GI/ PVC	GI/ PVC	1575	Submerssible			12	743
197	Bolgarh	Baypalli	PW	2	82400		100000	GI/ PVC	GI/ PVC	830	Submerssible			20	889
198	Bolgarh	Bhabanipur & its adj.	PW	2	166320			GI/ PVC	GI/ PVC	3620	Submerssible		8	30	2081
199	Bolgarh	BHIMAPADA	PW	2	77240	50000		GI/ PVC	GI/ PVC	1320	Submerssible		4	21	373
200	Bolgarh	Bilakhauruni (Swaj)	PW	2	94200	100000		GI/ PVC	GI/ PVC	3400	Submerssible			28	1609
201	Bolgarh	Bolagarh	PW	2	214800	100000	100000	GI/CI	PVC/CI/GI	7550	Submerssible		139	22	5282
202	Bolgarh	Chandrasekharpur (Swaj)	PW	2	96200	100000		GI/ PVC	GI/ PVC	3200	Submerssible		4	42	1975
203	Bolgarh	Chuda	PW	2	119560	50000		GI/ PVC	GI/ PVC	1800	Submerssible			46	2589
204	Bolgarh	Dabarudhua & its adj.	PW	2	110000			GI/ PVC	GI/ PVC	3820	Submerssible		5	25	1421
205	Bolgarh	Daleisahi	PW	2	76000			GI/ PVC	GI/ PVC	8120	Submerssible		324	156	7034
206	Bolgarh	Deuli	PW	2	101400	50000		GI/ PVC	GI/ PVC	4000	Submerssible		2	30	1059
207	Bolgarh	Dhalapathara	PW	2	130200	50000	100000	GI/ PVC	GI/ PVC	4290	Submerssible		7	42	1984
208	Bolgarh	Fasioda (Tangi sahi)	PW	2	84920			GI/ PVC	GI/ PVC	2960	Submerssible		130	52	733
209	Bolgarh	Gabadihapatna	PW	2	72000	100000		GI/ PVC	GI/ PVC	9535	Submerssible		10	25	1809
210	Bolgarh	Gediapalli	PW	2	39520	50000		GI/ PVC	GI/ PVC	2090	Submerssible		17	20	627
211	Bolgarh	Gobardhanpur	PW	2	96200	50000		GI/ PVC	GI/ PVC	2130	Submerssible		13	45	1659
212	Bolgarh	Gopalpur	PW	2	74320	50000		GI/ PVC	GI/ PVC	2460	Submerssible		4	25	178
213	Bolgarh	Gopalipada	PW	2	46800			GI/ PVC	GI/ PVC	830	Submerssible		8	12	812

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214	Bolgarh	Jamusahi	PW	1	29120			GI/ PVC	GI/ PVC	750	Submerssible			4	411
215	Bolgarh	Jaripada	PW	1	139520			GI/ PVC	GI/ PVC	1845	Submerssible		15	17	3588
216	Bolgarh	Talakadaba	PW	2	163040	100000		GI/ PVC	GI/ PVC	5075	Submerssible		15	35	2496
217	Bolgarh	Kalanga	PW	2	47520	50000		GI/ PVC	GI/ PVC	1970	Submerssible			20	1153
218	Bolgarh	Khalikote	PW	1	146400			GI/ PVC	GI/ PVC	1100	Submerssible			11	1006
219	Bolgarh	KHANATI	PW	2	56440			GI/ PVC	GI/ PVC	1970	Submerssible			25	716
220	Bolgarh	Khanguria	PW	2	101880			GI/ PVC	GI/ PVC	3150	Submerssible		16	14	1345
221	Bolgarh	Kudaberani	PW	2	58880	100000		GI/ PVC	GI/ PVC	2460	Submerssible		16	22	1271
222	Bolgarh	Kotasingha	PW	2	49000		100000	GI/ PVC	GI/ PVC	1200	Submerssible		3	18	763
223	Bolgarh	Manibandha	PW	2	69680	50000		GI/ PVC	GI/ PVC	3560	Submerssible		3	22	1395
224	Bolgarh	Mugamanda	PW	2	48160	50000		GI/ PVC	GI/ PVC	2150	Submerssible		4	22	572
225	Bolgarh	Nandapali	PW	2	116000	50000		GI/ PVC	GI/ PVC	4250	Submerssible		5	22	429
226	Bolgarh	Naupada	PW	2	31600	50000		GI/ PVC	GI/ PVC	1140	Submerssible			10	305
227	Bolgarh	Paikasahi	PW	2	82400			GI/ PVC	GI/ PVC	2120	Submerssible			12	1084
228	Bolgarh	Patpursasan	PW	2	19320			GI/ PVC	GI/ PVC	955	Submerssible		10	13	420
229	Bolgarh	Pichukuli	PW	1	86640	50000		GI/ PVC	GI/ PVC	3400	Submerssible		17	31	1609
230	Bolgarh	RAMPUR	PW	2	40800			GI/ PVC	GI/ PVC	1020	Submerssible		25	10	613
231	Bolgarh	Rasol	PW	2	61480	50000		GI/ PVC	GI/ PVC	1490	Submerssible		6	18	1135
232	Bolgarh	Sargargaon	Intake well	1	426800			GI/ PVC	GI/ PVC	2300	Submerssible		6	18	1198
233	Bolgarh	Salatara	PW	2	62320	50000		GI/ PVC	GI/ PVC	3900	Submerssible		9	20	922
234	Bolgarh	SANAPADAR	PW	2	206800	50000		GI/ PVC	GI/ PVC	3940	Submerssible		21	22	3398
235	Bolgarh	Singhpur	PW	1	48680			GI/ PVC	GI/ PVC	1206	Submerssible			12	1122
236	Bolgarh	Srichandanpur & its adj.	PW	2	158720			GI/ PVC	GI/ PVC	2200	Submerssible		2	20	1447
237	Bolgarh	Tikatal	PW	2	50000	50000		GI/ PVC	GI/ PVC	1550	Submerssible			6	881
238	Bolgarh	Tutiapada	PW	2	116000	200000		GI/ PVC	GI/ PVC	7200	Submerssible		200	13	2617
239	Bolgarh	Malisahi	PW	2	129880	100000	50000	GI/DI	DI/GI/PVC	2400	Submerssible			20	1060
240	Chilika	Ankula	PW	2	43720	50000		GI/ PVC	GI/ PVC	1900	Submerssible		20	22	1161
241	Chilika	Analdiha	PW	2	80800	50000		GI/ PVC	GI/ PVC	3100	Submerssible	IRP		18	870
242	Chilika	Balinasi	PW	3	170600	100000		GI/ PVC	GI/ PVC	15515	Submerssible			45	4374
243	Chilika	Barunpada	PW	2	35480	50000		GI/ PVC	GI/ PVC	1160	Submerssible			12	133
244	Chilika	Baulabandha	PW	2	248000	50000	50000	GI/CI	PVC/CI/GI	4095	Submerssible			28	5914
245	CHILIKA	BHAHGABATIPUR	PW	2	428000	200000	100000	GI/ PVC	GI/ PVC	9550	Submerssible			45	5409
246	Chilika	Biribadi	PW	2	226640	100000	100000	GI/ PVC	GI/ PVC	5400	Submerssible			18	2224
247	Chilika	Brahmankosadiha	PW	2	51520			GI/ PVC	GI/ PVC	2400	Submerssible		1	11	870
248	Chilika	Chandeswar	PW	3	164000	50000	100000	GI/CI	GI/ PVC	5445	Submerssible			21	2771
249	Chilika	Chhotaraypur	PW	2	56440	50000		GI/ PVC	GI/ PVC	2000	Submerssible			11	798

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250	Chilika	Dhunala	PW	2	152160	100000		GI/ PVC	GI/ PVC	3350	Submerssible			25	2118
251	Chilika	Dungamala	PW	2	469440	50000		GI/ PVC	GI/ PVC	7600	Submerssible			22	307
252	Chilika	Gangadharpur	PW	2	59200	50000		GI/ PVC	GI/ PVC	3265	Submerssible			18	433
253	Chilika	Baradihi	PW	2	105680	100000		GI/ PVC	GI/ PVC	2900	Submerssible			20	2741
254	Chilika	Haripur	PW	2	160760	100000		GI/ PVC	GI/ PVC	2900	Submerssible		5	28	2180
255	Chilika	Hatabaradi & its adj.	PW	2	329040	100000	100000	GI/ PVC	GI/ PVC	8945	Submerssible			35	4061
256	Chilika	Jaripada	PW	4	412600	100000		GI/ PVC	GI/ PVC	9900	Submerssible			45	6249
257	Chilika	Kaithapalla	PW	2	127720	50000		GI/ PVC	GI/ PVC	1790	Submerssible			12	2046
258	Chilika	Kalakaleswar	PW	1	38120			GI/ PVC	GI/ PVC	830	Submerssible			11	1156
259	Chilika	Kharibandha	UGR Saheb Bandha	1	40440		10000	GI/ PVC	GI/ PVC	1270	Submerssible		2	10	1405
260	Chilika	Kumandal patna	PW	2	47280	50000		GI/ PVC	GI/ PVC	1185	Submerssible			33	1448
261	CHILIKA	MANSINGHPUR (PART)	PW	2	341320	100000	100000	GI/ PVC	GI/ PVC	5550	Submerssible			35	5762
262	Chilika	Mundal	PW	2	42720			GI/ PVC	GI/ PVC	1500	Submerssible		2	12	359
263	Chilika	Nimuna	PW	2	74000	50000		GI/ PVC	GI/ PVC	3300	Submerssible	IRP		15	754
264	Chilika	Paikakosadiha	PW	2	59560	50000		GI/ PVC	GI/ PVC	1450	Submerssible		1	12	1067
265	Chilika	Parabal	PW	3	66200	50000		GI/ PVC	GI/ PVC	1640	Submerssible			12	769
266	Chilika	Putana	PW	2	41680	50000		GI/ PVC	GI/ PVC	1900	Submerssible			10	164
267	Chilika	Rahanbeli & its adj.	PW	2	146840			GI/ PVC	GI/ PVC	4050	Submerssible			22	1474
268	Chilika	Rajendrapur	PW	1	32640	50000		GI/ PVC	GI/ PVC	1260	Submerssible			12	419
269	Chilika	Sananairi	PW	2	356520	100000	100000	GI/ PVC	GI/ PVC	7040	Submerssible			35	3326
270	Chilika	Saralsing	PW	1	30880	50000		GI/ PVC	GI/ PVC	1900	Submerssible		1	11	828
271	Chilika	Singheswar & adj. villages	Intake well & PW	2	1149680	900000		GI/CI	PVC/CI/GI	3434	Submerssible			128	9958
272	Chilika	Sorana	PW	2	206200	100000		GI/CI	GI/ PVC	8900	Submerssible		3	38	3692
273	Jatni	ANGARPADA	PW	2	102760	100000	100000	GI/ PVC	GI/ PVC	5000	Submerssible		15	10	1435
274	Jatni	Arugul	PW	2	122760	50000		GI/ PVC	GI/ PVC	6250	Submerssible		16	40	2203
275	Jatni	Badaraghunathpur	PW	2	19720	10000		GI/ PVC	GI/ PVC	1190	Submerssible	IRP	40	15	598
276	Jatni	Badatota	PW	3	146040	50000		GI/ PVC	GI/ PVC	3510	Submerssible	IRP	31	27	2388
277	Jatni	Benapanjari	Intake well	1	212000	250000		GI/DI	DI/GI/PVC	5415	Centrifugal & Submerssible	Pressure Filter	250	32	4417
278	Jatni	Bhatakudi	PW	1	128840	50000		GI/ PVC	GI/ PVC	4700	Submerssible		188	38	2019
279	Jatni	Bhimpur	PW & Open Well	3	60920	30000		GI/ PVC	GI/ PVC	1630	Submerssible	IRP	30	17	1106
280	Jatni	Botanda	PW	2	75000	50000		GI/ PVC	GI/ PVC	3200	Submerssible		25	20	2250

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281	Jatni	Chatabara	PW & Open Well	3	105640	50000		GI/ PVC	GI/ PVC	2880	Submerssible	IRP	22	40	1963
282	Jatni	KUSUMATI	Open Well	1	203880		100000	GI/ PVC	GI/ PVC	12500	Submerssible	Pressure Filter	125	30	1113
283	Jatni	Dakhinamundamuhan	PW	3	81680	50000		GI/ PVC	GI/ PVC	5400	Submerssible		112	30	1607
284	Jatni	Deuliatpatna	Open Well	1	78600	100000		GI/ PVC	GI/ PVC	2594	Submerssible	Pressure Filter	115	15	1542
285	Jatni	Gangapada	PW & Open Well	2	96600	50000		GI/ PVC	GI/ PVC	2650	Submerssible		210	35	1874
286	Jatni	Jamukoli	PW	2	100000	50000	100000	GI/ PVC	GI/ PVC	3335	Submerssible	IRP	26	25	1369
287	Jatni	Janala	PW	2	64120	50000	100000	GI/ PVC	GI/ PVC	550	Submerssible	IRP	46	27	894
288	Jatni	Kaimatia Patana	PW	1	124040	50000		GI/ PVC	GI/ PVC	2655	Submerssible		48	27	2178
289	Jatni	Kantia	PW	2	135640	50000	100000	GI/ PVC	GI/ PVC	2645	Submerssible	IRP	216	35	2621
290	Jatni	Kuha	PW	2	96040	50000		GI/ PVC	GI/ PVC	2150	Submerssible	IRP	15	25	1039
291	Jatni	Madanpur	PW	2	66360	30000	100000	GI/ PVC	GI/ PVC	1030	Submerssible	IRP	44	25	1258
292	Jatni	Mahavircolony	PW	2	64520	50000		GI/ PVC	GI/ PVC	2100	Submerssible			20	142
293	Jatni	Paniorada (Mahula)	PW	3	89800	50000		GI/ PVC	GI/ PVC	3230	Submerssible			40	1561
294	Jatni	MAJANA	PW	2	92360	50000		GI/ PVC	GI/ PVC	4000	Submerssible	IRP		10	614
295	Jatni	Ogalapada	PW	2	175160	100000		GI/ PVC	GI/ PVC	10700	Submerssible		175	80	3319
296	Jatni	Padanpur	PW	3	83360	50000		GI/ PVC	GI/ PVC	3080	Submerssible	IRP	25	25	1481
297	Jatni	Palaspur	PW	2	92360	50000		GI/ PVC	GI/ PVC	3900	Submerssible			30	1522
298	Jatni	Panchagaon	PW	1	108000	50000		GI/ PVC	GI/ PVC	3220	Submerssible	IRP	8	27	2016
299	Jatni	Panchupalli	PW	2	67480	50000		GI/ PVC	GI/ PVC	2350	Submerssible		95	24	1515
300	Jatni	Pradhan sahi	PW	1	68320	50000		GI/ PVC	GI/ PVC	2810	Submerssible	IRP	20	15	1366
301	Jatni	Tirimal	Intake well	1	218000			GI/DI	DI/GI/PVC	4485	Centrifugal & Submerssible	WTP	300	32	4666
302	Jatni	Upperbasta	PW	3	105160	50000		GI/ PVC	GI/ PVC	7900	Submerssible		30	47	1888
303	Khurda	Adhakhandia	PW	2	56000	50000		GI/ PVC	GI/ PVC	2550	Submerssible		60	22	727
304	Khurda	Aranga	PW	2	74000	50000		GI/ PVC	GI/ PVC	2250	Submerssible		1	30	1421
305	Khurda	Bagheitangi	PW	2	162920	50000		GI/ PVC	GI/ PVC	10400	Submerssible		115	26	1196
306	Khurda	Bajapur	PW	4	330800	50000	100000	GI/ PVC	GI/ PVC	8430	Submerssible			95	3948
307	Khurda	BALAPUR	PW	2	76400			GI/ PVC	GI/ PVC	2490	Submerssible			15	1262
308	Khurda	Bangida	PW	1	176000	50000		GI/ PVC	GI/ PVC	5840	Submerssible		25	35	2244
309	Khurda	Baniatangi	PW	2	148000	50000		GI/ PVC	GI/ PVC	2565	Submerssible		15	12	2139
310	Khurda	BARA SAHI	PW	2	59760	100000		GI/ PVC	GI/ PVC	6050	Submerssible		42	25	368
311	Khurda	Basanta-I	PW	1	35120	10000		GI/ PVC	GI/ PVC	800	Submerssible		125	20	1186
312	Khurda	Basanta-II	PW	1	59160			GI/ PVC	GI/ PVC	1100	Submerssible		15	4	135

Sl. No.	Block	Name of Scheme	Type of Source	Number of Sources	Quantity of water supplied (per day) in Ltr	UGR Capacity (Yes/No)	OHT Capacity (Yes/No)	Rising Main Category	Type of Pipe	Length of pipeline in mtr	Type of Pump	Type of Treatment	No. of HH connections	No. of Standposts	Population (2011)
313	Khurda	Brajamohanpur	PW	2	137880	50000		GI/ PVC	GI/ PVC	10500	Submerssible		100	30	1295
314	Khurda	Chandapur	PW	2	30000	50000		GI/ PVC	GI/ PVC	2720	Submerssible			12	469
315	Khurda	Dadhimachhagadia	PW	4	197800	50000		GI/ PVC	GI/ PVC	5470	Submerssible		315	28	3107
316	Khurda	Dhaulimuhan	PW	2	201800	100000		GI/ PVC	GI/ PVC	3300	Submerssible		236	25	2841
317	Khurda	DURGAPRASAD	PW	2	139680	100000		GI/ PVC	GI/ PVC	8720	Submerssible		197	35	2181
318	Khurda	Godipada	PW	2	168520	50000		GI/ PVC	GI/ PVC	7215	Submerssible		49	30	1927
319	Khurda	Golabai	Intake well	1	276600			GI/ PVC	GI/ PVC	11760	Submerssible		201	38	5023
320	Khurda	Jakara	Open Well	1	32000		20000	GI/ PVC	GI/ PVC	1000	Submerssible		5	8	203
321	Khurda	Jankia	PW	4	204000	50000	100000	GI/ PVC	GI/ PVC	12115	Submerssible		265	60	2843
322	Khurda	Jariput & Chhotaraypur	PW	2	102400	50000		GI/ PVC	GI/ PVC	6750	Submerssible			30	1038
323	Khurda	Jayamangal	PW	2	37840	50000		GI/ PVC	GI/ PVC	3255	Submerssible			25	669
324	Khurda	Kalyanpur	Open Well	1	15240		20000	GI/ PVC	GI/ PVC	870	Submerssible			7	193
325	Khurda	Kanapur	PW	2	360000	100000		GI/ PVC	GI/ PVC	11050	Submerssible		300	74	5934
326	Khurda	Kumarbasta	PW	2	144000	50000		GI/ PVC	GI/ PVC	5800	Submerssible		2	30	2230
327	Khurda	Kundilo	PW	2	34400			GI/ PVC	GI/ PVC	1450	Submerssible		61	10	569
328	Khurda	KURADHAMALLA	PW	3	91000	100000		GI/ PVC	GI/ PVC	3850	Submerssible		123	24	1516
329	Khurda	Kurumpada	PW	2	148000	50000		GI/ PVC	GI/ PVC	4010	Submerssible		29	40	2279
330	Khurda	Mahatapalla	PW	2	61200			GI/ PVC	GI/ PVC	2350	Submerssible			12	232
331	Khurda	Malipur	PW	1	60960			GI/ PVC	GI/ PVC	660	Submerssible		95	6	1108
332	Khurda	Mukatapur	PW	2	232720	50000	100000	GI/ PVC	GI/ PVC	5200	Submerssible		1	35	3458
333	Khurda	Narangada	PW	3	214400	50000	100000	GI/ PVC	GI/ PVC	5700	Submerssible		25	60	3180
334	Khurda	Palatotapada	PW	2	239840			GI/ PVC	GI/ PVC	11840	Submerssible		1	50	2376
335	Khurda	Pubusahl	PW	2	90400			GI/ PVC	GI/ PVC	3160	Submerssible			30	2164
336	Khurda	Sialiapatna	PW	2	46400			GI/ PVC	GI/ PVC	1930	Submerssible			20	1253
337	Khurda	Tangiapada	PW	2	72000	50000		GI/ PVC	GI/ PVC	2900	Submerssible			15	1132
338	Khurda	Nigigarhtapanga	PW	2	111240	50000		GI/ PVC	GI/ PVC	7375	Submerssible		150	62	2378
339	Khurda	Tartua	PW	4	242800	50000	100000	GI/ PVC	GI/ PVC	9807	Submerssible			38	5292
340	Khurda	Thakurapada	PW	2	84000	50000		GI/ PVC	GI/ PVC	4090	Submerssible		194	30	1357
341	Khurda	Wiilkisan Nagar	PW	1	56080	50000		GI/ PVC	GI/ PVC	3050	Submerssible			20	1241
342	Tangi	Aranga	PW	2	76000	50000		GI/ PVC	GI/ PVC	4010	Submerssible		53	23	1010
343	Tangi	Badapari	PW	2	180000	100000		GI/ PVC	GI/ PVC	6250	Submerssible		123	62	3377
344	TANGI	BADAPOKHARIA	PW	2	252000	100000		GI/ PVC	GI/ PVC	8280	Submerssible		16	45	460
345	Tangi	Boriko	PW	2	68000	100000		GI/ PVC	GI/ PVC	3600	Submerssible	IRP	25	25	696
346	Tangi	Bhajagarh	PW	3	91440	50000		GI/ PVC	GI/ PVC	4550	Submerssible			20	877
347	Tangi	Bhobara	PW	4	72000	50000		GI/ PVC	GI/ PVC	3887	Submerssible		69	13	1179

Sl. No.	Block	Name of Scheme	Type of Source	Number of Sources	Quantity of water supplied (per day) in Ltr	UGR Capacity (Yes/No)	OHT Capacity (Yes/No)	Rising Main Category	Type of Pipe	Length of pipeline in mtr	Type of Pump	Type of Treatment	No. of HH connections	No. of Standposts	Population (2011)
348	Tangi	Bhusandpur	Intake well	1	1647520	965000		GI/CI	GI/PVC	36125	Centrifugal & Submerssible	WTP	24	350	37614
349	Tangi	Chhanagiri & its adj.	PW	2	200000		100000	GI/ PVC	GI/ PVC	6752	Submerssible		52	45	4125
350	Tangi	Damanabhuin	PW	3	172000	100000		GI/ PVC	GI/ PVC	6667	Submerssible			40	2915
351	Tangi	Dixitpada	PW	2	100000	50000		GI/ PVC	GI/ PVC	3650	Submerssible		15	30	1852
352	Tangi	Gopalprasad	PW	1	296000	200000		GI/ PVC	GI/ PVC	10780	Submerssible		84	58	4574
353	Tangi	Gopinathpur	PW	2	68000			GI/ PVC	GI/ PVC	1900	Submerssible		132	30	2590
354	Tangi	Jayamangalpur	PW	2	108000	100000		GI/ PVC	GI/ PVC	5120	Submerssible		125	23	1833
355	Tangi	Ramachandrapur (Jharia)	PW	3	96000	50000		GI/ PVC	GI/ PVC	4500	Submerssible			20	1677
356	Tangi	Kamaguru	PW	2	64000			GI/ PVC	GI/ PVC	2848	Submerssible		56	20	1361
357	Tangi	Khajuripada	PW	3	168000	50000		GI/ PVC	GI/ PVC	5360	Submerssible			45	2478
358	Tangi	Krupasindhupur	PW	1	44000			GI/ PVC	GI/ PVC	2470	Submerssible		70	7	887
359	Tangi	Nijigarhkuhuri	PW	1	244000	20000		GI/ PVC	GI/ PVC	7400	Submerssible	IRP	38	70	4275
360	TANGI	KUNJURI	PW	2	72040	50000		GI/ PVC	GI/ PVC	3769	Submerssible		28	13	255
361	Tangi	Kusumi	PW	2	128000	100000		GI/ PVC	GI/ PVC	3030	Submerssible		1	34	2264
362	Tangi	Lendo	PW	2	104000	100000		GI/ PVC	GI/ PVC	3764	Submerssible		84	35	1985
363	Tangi	Manpurpatna	PW	1	160000			GI/ PVC	GI/ PVC	4410	Submerssible		2	65	2812
364	Tangi	Mangaljodi	PW	3	388000	200000		GI/ PVC	GI/ PVC	7900	Submerssible	IRP		60	5754
365	Tangi	Naramanabi	PW	3	50800	50000		GI/ PVC	GI/ PVC	3150	Submerssible		73	20	1044
366	Tangi	Nirakarpur	Intake well	1	218840	265000		GI/CI	GI/ PVC	4690	Submerssible		25	37	5927
367	TANGI	NUAGARH	PW	3	283280	100000		GI/ PVC	GI/ PVC	9128	Submerssible			85	5439
368	Tangi	Olasing	PW	3	188160	100000		GI/ PVC	GI/ PVC	8610	Submerssible		18	55	3012
369	Tangi	Orada	PW	1	36000			GI/ PVC	GI/ PVC	1700	Submerssible		23	14	701
370	Tangi	Panaspurpatna	PW	1	152000			GI/ PVC	GI/ PVC	5070	Submerssible		2	60	2428
371	Tangi	Pariorada	PW	2	138000	100000	100000	GI/ PVC	GI/ PVC	4810	Submerssible	IRP		30	2323
372	Tangi	Rameswar	Intake well	1	131560			GI/CI	GI/ PVC	10180	Submerssible			27	3127
373	Tangi	Ratamati & its adj.	PW	2	160000	100000		GI/ PVC	GI/ PVC	6945	Submerssible			45	884
374	Tangi	Ratanpur	PW	2	168000	100000		GI/ PVC	GI/ PVC	4730	Submerssible			35	3778
375	Tangi	Sarapari	PW	1	192000			GI/ PVC	GI/ PVC	5000	Submerssible		1	30	3960
376	Tangi	Singarama	PW	3	88000	100000		GI/ PVC	GI/ PVC	3100	Submerssible		12	20	1504
377	TANGI	SUNDARPUR -2	PW	3	460000	200000		GI/ PVC	GI/ PVC	12017	Submerssible		6	72	1717
378	Tangi	Tangi	PW	1	198400	200000	100000	GI/ PVC	GI/ PVC	5770	Submerssible	IRP	1	50	3749

