

HYDERABAD METROPOLITAN WATER SUPPLY & SEWERAGE BOARD



EXPRESSION OF INTEREST

EOL.No.01/2nd call/HMWSSB/CGM (E)/TC/Leak detection/Exp.Int dt: 07.08.2015.

Expression of Interest for **Online leak detection and condition assessment including preparation of detailed study report with recommendation of rehabilitation with appropriate technology on Ring Main-I of KDWSP Phase-II.**

I.BACK GROUND

- The Krishna Drinking water supply project envisages for tapping 16.5 TMC of raw water from river Krishna i.e 270 mgd in three phases each phase of 5.5TMC for adding 90 Mgd of treated water to the water supply system of Hyderabad Metropolitan area in each phase.
- The treated water is being pumped by three pumping stations viz., Kodandapur (KM 116/0), Nasarlapally (KM 82/2) and Godakondla (KM 59/6) on the Hyderabad – Nagarjunasagar State Highway -2 to Master Balance reservoirs at Gungal(KM 40). From Gungal the water flows by gravity to Sahebnagar Terminal Balancing Reservoir (KM 10) and then distributed in to the distribution network of Hyderabad and Secunderabad.
- The water in KDWS Phase-II is distributed into two Ring mains at Sahebnagar. The Ring Main-I will distribute the water to Mailardevpally and then pumped to Prashasan nagar and whereas the Ring Main-II will carry the water to Marredpally.
- The Ring Main-I is laid 1600mm dia PSC gravity main through Nandi Hills, Prashanthi Hiils, Meerpet, Lenin nagar and Balapur junction which is transmitting about 36 MGD.
- Total length of Ring main-I of KDWSP Ph-II pipeline from Sahebnagar to Mailardevpally pumping station is 14 kms and laid with PSC pipes. It is observed that frequent leakages are occurring in the stretch of about 6000 mtrs from Nandi Hills to Shivaji Chowk at RCI compound wall. So far about 41 major leakages are attended in this reach since commissioning of the pipeline. So proposal is made for 6000mts to ascertain the condition of the pipeline.

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II OBJECTIVES OF WORK

HMWSSB is looking for online leak detection and condition assessment using appropriate technology on Ring Main-I of KDWSP Phase-II. The services shall include site visit submission of planning documents, mobilization of trained man power, Mobilization of equipment and it's assembling at site. Conducting online leak detection and condition assessment and submission of study report including recommendations.

The objectives of the work to be done under this TOR are:

1. Conduct a site reconnaissance survey to review, formulate work plan and discuss technical issues with HMWSSB.
2. Review the existing pipeline drawings, design specifications, hydraulic conditions, manufacturing and installation details which will be used in the planning the inspection and engineering analysis.
3. To find out the number of minute leakages on this main line to assess the condition of the pipeline through new technologies like Sahara and smart ball technology or equivalent.
4. The study should not disturb either pipeline or supplies through the pipeline.

III.SCOPE OF WORK

The scope of the services to be provided under this contract are:

Some of the areas where the consultant has to undertake studies and submit reports are

1. Mobilization of Equipments & Man Power:

Consultant should furnish equipment and personnel necessary to deploy the equipment and tools at HMWSSB site.

2. The study shall include:

- Provide inline over all pipeline condition assessment from inside
- Real time assessment with no need for flow shut down
- Provide pin point location of the leak on the ground surface.
- Video analysis of pipe from inside
- To track unwanted anomalies like unknown gate valves, air pockets, bends and suspected sections.
- Pipe network mapping
- Total information in Hard copies and CD forms

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3. Planning of the condition assessment:

The consultant should prepare a detailed planning document for the condition assessment prior to the inspection of the pipelines which shall include the following information.

- Description of the location of the pipeline
- Inspection methodology including insertion requirement.
- Pipeline flow and pressure
- Details report of the site visit
- Requirements and location of insertion point
- Insertion sites and inspection details
- Inspection schedule and on site condition
- Project contacts
- Defining stake holder responsibilities.

4. Inspection Runs:

Once the planning document is completed the consultant should immediately commence with the inspection of the pipelines which should do inline condition assessment of the pipeline along the CCTV inspection.

IV. DELIVERABLES

Preparation of detailed study report of online leak detection and condition assessment including CCTV of water pipelines using smart ball and Sahara Technology or equivalent on Ring Main-I of KDWSP Phase-II.

The consultant shall make his own arrangements for the required equipment, computers and accessories, furniture, vehicles etc needed for the purpose of completing the job.

The conductivity of the study and preparation of the reports and products of the work required by this TOR shall be completed in the following schedule.

| S.No | Description | Schedule Period | No.of Copies |
|------|---|-----------------|---------------------------------|
| 1. | Preparation of detailed study report of Online leak detection and condition assessment including preparation of detailed study report with recommendation of rehabilitation with appropriate technology on Ring Main-I of KDWSP Phase-II. The break up is as below. | 2 Months | 5 hard copies and 5 soft copies |
| | a. Reconnaissance survey | 5 days | |
| | b. Mobilization and installation of the equipment | 10 days | |
| | c. Conducting the condition assessment and leak detection survey. | 25 days | |
| | d. Submission of intermediary report | 10 days | |
| | e. Submission of final report | 10 days | |

Note: The final inspection reports along with CCTV videos should be submitted along with the Detailed Study Report within the stipulated time period including the completion of field study.

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DOCUMENTS TO BE SUBMITTED:

The following documents shall be submitted along with expression of interest.

| S.No | Document to be submitted | Mandatory/Optional | Remarks |
|------|---|--------------------|--|
| 1. | Fee for an amount of Rs:5000/- payable to HMWSSB, Hyderabad | Mandatory | Non-Refundable |
| 2. | Name & address of the firm | Mandatory | |
| 3. | Annual turnover for the last consecutive five years (copy of balance sheet) certified by the Chartered accountant shall be enclosed. | Mandatory | |
| 4. | Year of Establishment | Mandatory | |
| 5. | Past experience with clients duly stating the performance | Mandatory | atleast 10 kilometers of pipeline of any diameter and pipe |
| 6. | Methodology and work plan including availability and deployment of equipment proposed to be used for online pipe condition assessment and leak detection. | Mandatory | |
| 7. | Copy of Registration | Mandatory | |
| 8. | Company Profile/Complete certificates for past projects. | Mandatory | |
| 9. | Contact person with communication details | Mandatory | |
| 10. | Communications details of existing /past clients as reference to completed works. | Mandatory | |
| 11. | Key Technical staff along with their qualification and performance. | Mandatory | Minimum of 2 years in similar type of work experience |

The last date for submission of Expression of interest along with above documents and also the financial offer is on or before **2:00PM on 14th of August 2015** to the **O/o CGM (E), Transmission Circle, HMWSSB, Khairatabad, Hyderabad**. EOI received after the dead line will not be considered for evaluation. All the applied participants/authorized persons are here by requested to attend this office at **3:00PM** along with ID proofs for knowing the list of participants applied.

Interested firms/consultants must provide information indicating that they are qualified to perform the Services (Cover-A) (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc. with fee payable to HMWSSB) along with their financial offer.(Cover-B). Both covers A & B shall in turn be enclosed in One Single cover with Tender No. Name of the work and Name of the Consultant / Firm should be super scribed on the top of the cover. The Technical Offer (Cover-A) will be opened initially and assessed the capability of Consultant, Financial Offer (Cover-B) of the qualified EOIs will be opened later duly informing the Consultant. The Consultants must submit the EOIs on due date & time in sealed cover as above and should be submitted to the Chief General Manager (E), Transmission Circle, Khairthabad, Hyderabad

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SCHEDULE OF RATES:

Period of completion of work is Two (2) months i.e from the date of agreement.

| S.No | Description | Rate quoted in figures | Rate quoted in words |
|-------------|--|-------------------------------|-----------------------------|
| 1. | Online leak detection and condition assessment including preparation of detailed study report with recommendation of rehabilitation with appropriate technology on Ring Main-I of KDWSP Phase-II | | |

- Taxes applicable should be mentioned.

Contact Details:

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