EXPRESSION OF INTEREST (EOI)

For the “Selection of Consulting Firm for Preparing the Feasibility report for Integrated Marathwada Water Grid Project”.
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EXPRESSION OF INTEREST (EOI)
For the “Selection of Consulting Firm for Preparing the Feasibility report for Integrated Marathwada Water Grid Project”.

1. Background

Maharashtra state has been divided into six regions of which Aurangabad is one of the region. Marathwada (which coincides with Aurangabad Division of Maharashtra) consists of 8 districts in the heart of Maharashtra: Aurangabad, Beed, Latur, Osmanabad, Parbhani, Jalna, Nanded and Hingoli. The region has a population of about 1.87 Crores and a geographical area of 64.5 Thousand sq. kms.

The topographical reasons have meant that traditionally Marathwada has been a low rainfall region. Marathwada region is facing severe scarcity of drinking water due to scanty rainfall since 2 to 3 years. More than 4000 tankers had to be deployed in year 2016 during scarcity period in Marathwada. Apart from this various other scarcity measures were also taken up such as temporary piped water supply scheme, special repairs, bore wells, private well requisition etc. Water was brought by railway from Miraj, Dist. Sangali from a distance of 300 Kms to meet the drinking water demand of Latur city. Due to the situation of water scarcity and drought in Maharashtra, the state government has also resorted to the option of artificial rain and cloud seeding. But the experiments have not yet been very successful in Maharashtra. Under such circumstances, state government has in the opinion of preparing grid water supply scheme to meet the drinking and industrial water needs in the line of Gujarat and Telangana water grid system. Also state governments want to explore the feasibility to provide water to meet irrigation needs to some extent though water grid system

After that Water Supply and Sanitation Department (WSSD), Government of Maharashtra (GoM) issued order on 6-12-2016 for formation of a committee under the chairmanship of Hon. Minister, WSSD, Maharashtra state for evaluating feasibility of supply of water by grid methodology having different alternatives.

Marathwada comprises of 8 districts having 78 tahasils. It consists of 12978 villages/habitations, 25 City panchayats, 50 Municipal councils and 4 Municipal Corporations, having 1,33,36,000 rural & 53,96,000 urban population, totaling to 1,87,32,000 as per 2011 census.

The raw water will be required to supply to the cities & towns and some multi villages water supply schemes as they have their independent water supply system. Since at present, source of drinking water of most of the villages are based on the ground water, it will be required to supply raw water to villages and city so as to make available sufficient potable water. The water will be supplied to all the urban & rural local bodies on bulk basis. The existing infrastructure created so far for drinking water purpose should also be used along with the main water grid.

Marathwada region is dependent on major dams such as Jaikwadi, Majalgaon, Lower Dudhna, Yeldari, Vishnupuri, Manjara, Mannar and Sidhdheshwar and many medium and minor irrigation projects for its water supply. However due to scanty rainfall during last few consecutive years, these dams had insufficient storage resulting into water scarcity problem. This has necessitated bringing the water from dams in adjoining regions.

With a view to solve the above mentioned problems permanently in Marathwada region, Govt is thinking to form water grid plan on the pattern of Gujarat and Telangana water grid projects.

In pursuance of the above, the Government has decided to carry out the process for
The Government of Maharashtra acting through the Maharashtra Jeevan Pradhikaran (MJP), and represented by the Chief Engineer, Maharashtra Jeevan Pradhikaran, Aurangabad of the Department (the “MJP”) is engaged in the development of water supply and sewerage system and as part of this endeavor, the MJP has decided to prepare prefeasibility report on Integrated Marathwada water grid project.

With a view to inviting bids for the Project, the MJP has decided to conduct a Feasibility study for determining the technical feasibility and financial viability of the Project. If found technically feasible and financially viable, then detail Project report will be prepared afterwards.

In pursuance of above, the MJP has decided to carry out the process for selection of a Consultant for preparing the Feasibility Report. The Consultant shall prepare the Feasibility Report in accordance with the scope of work specified in subsequent section.

1.1 Broad Objectives

- To survey by GPS instruments, plan, design and prepare rough estimate for Integrated Piped network of drinking water and industrial water for Marathwada region so as sufficient water is made available for drinking throughout the year.
- To prevent scarcity of water in Marathwada region through integrated pipe network.
- To save money that need to be spent on temporary scarcity mitigation measures
- To achieve economy of scale in supply of water for different purposes

2. Scope of Work

The consultant is expected to prepare feasibility report for Integrated Piped Network in Marathwada Region to make drinking water and industrial water available throughout the year.

The scope of work envisaged is as given below:

I. Planning, designing and cost estimation of integrated water grid for Marathwada region.
II. The feasibility shall include Population forecasts and assessment of total water demand for Drinking, Irrigation and Industry for the year 2050.
III. Primary data collection of urban and rural habitations of Marathwada region related to existing status of supply of water supply for drinking, commercial and industrial purpose.
IV. Assessment of demand of water for drinking, commercial and industrial purpose.
V. Identification of gap in demand and supply of water in the above mentioned usage of water. In case of drinking water supply, while assessing the supply and demand status, water supply in summer season is to be considered.
VI. Identification of source of water supply i.e. Dams and Reservoirs. While identifying the source it is to be seen that required amount of water is available regularly throughout the year.
VII. Possibility of linking of various reservoirs through piped network for transfer of water from surplus reservoir to deficit reservoir should be considered. At the first instance only following interconnection by pipeline for irrigation water along with feasibility report and preliminary estimate to be prepared. While planning the interconnection of these
reservoirs latest government / court guidelines shall be considered.

- Water releases for equitable distribution to Jayakwadi dam from Mulla complex, Pravara complex, Dharna complex, Gangapur complex and Palkhed complex of reservoirs of Water Resource Department.
- From Jayakwadi reservoir to Majalgaon dam.
- From any adjoining reservoir to Manjra dam.

VIII. Identification of tapping points and tapping arrangement for supply of Water supplied through grid for drinking, commercial and industrial purpose.

IX. If sufficient water for drinking and industrial purposes is not available in the dams/reservoirs of Marathwada, the water available in dams/reservoirs located adjoining regions should be considered in consultation with WRD/ MWRRA.

X. Review of the data determining the nature, extent, adequacy, validity and identifying the data gaps and undertaking necessary assessments. Consultant will have to interact with the concerned authorities of Maharashtra state like Water supply and sanitation department (WSSD), Urban Development Department (UDD), Maharashtra Jeevan Pradhikaran (MJP), Groundwater Surveys Development authority (GSDA), Water Resources Department/ Irrigation department (WRD), Industries Department and or MIDC, Urban Local Bodies( ULBs) and Zilla Parishad (ZP) etc. to collect and validate the data. While calculating assessment of availability of water from a particular dam/reservoir, water allocation already reserved for particular purpose is also to be considered.

XI. Source for drinking water demand must be based on 95% reliability. The aim of water grid is to make available assured raw water at nearest point of habitations.

XII. Feasibility Analysis with different alternatives using existing database and Google map. Survey can be done by using GPS instrument for locating some main points like location of existing head works of water supply scheme, Pumping stations and suitable alignment of pipe line. Most of the GIS files related to topography sheet of geological survey of India, habitations, tahsil, District, drainage, watershed boundary etc. related to Maharashtra state is available and same shall be provided by department for feasibility analysis.

XIII. All the available information and survey done by GPS instruments must be brought on GIS platform for analysis. The length and level required shall be taken from data gathered from GPS instruments.

XIV. Drawing should be prepared by superimposing GIS data, pipeline network on the Google map.

XV. Digital maps are to be prepared in the form of GIS enabled format. Data such as water availability, pressure, demand, coordinates, elevation at nodal points shall be attached to GIS map.

XVI. Drawings of various layouts and options of water grid are also to be prepared and made available in hardcopy as well as soft copy.

XVII. All the calculations regarding demand assessment, designs etc., and estimates are to be provided.

XVIII. The design of Raw/ Pure water/ transmission network etc. shall be done by using distances and elevation obtained from GPS/ GIS only.

XIX. The Techno-economic feasibility reports shall consist of at least 3 alternatives/ scenarios. All calculations to be provided compatible with WaterGems software. Also tentative cost estimate based on above survey. Operation and maintenance cost, calculation of per cubic meter supply rate of water at various (identified) supply points is to be calculated.
Alignment of the pipe line network shall be finalized considering the life cycle cost. The operation and maintenance cost and capital cost is to be optimized.

XX. The general approach as to how the costs were estimated and all basic assumption such as unit prices are to be given clearly as separate annexure. Approach and assumption shall be got approved from the MJP before starting the estimation. The cost estimates for the proposed alternative should also be compared with similar recent projects or related projects in the region. The certain percentage of contingencies and price escalation shall also be taken into consideration while arriving at the tentative cost estimates of various alternatives.

XXI. Possibility of use of solar power should be explored to reduce the expenses on energy charges.

XXII. The estimate to be prepared should be item wise estimate on the basis of available District schedule rate of MJP/ PWD/ WRD of Maharashtra state.

XXIII. Necessary land required for pipe line and other structure must be identified and mentioned in the feasibility report. Also, identify the permission required from different government department such as Forest, Revenue, WR department or MWRRA for carrying out the suggested activity for this project so that the necessary acquisition/ permission from the respective authority can be obtained in time.

XXIV. Scope also consists of improving irrigation potential of Marathwada region while planning this water grid. Connectivity of some dams, preferably by gravity network, must be considered while planning. Major Irrigation canal and its network should also be mapped by GPS survey on GIS platform for the dam /storages reservoir selected for supply of water under this water grid. Possibility of integration of irrigation canal and major raw water pipe line for domestic/ non- domestic/ industrial water supply must be explored. Possibility of replacing canal by pipe line and possible saving of water must be studied to increase present command area of irrigation.

XXV. The water grid plan should be in consistence with integrated state water plan for Godavari Basin. The import/ export of water from one river basin to other river basin, policy of Water Resource department should be examined and alternatives should be suggested.

XXVI. To suggest the mode of operation and maintenances and agencies involved for O & M and cost recovery of this scheme. Consultant should also suggest the different revenue model so that the scheme can be self-sustainable. While framing the revenue model, expenditure done by state government in tankers and others scarcity measures during scarcity period of last 5 years can be considered for justification.

XXVII. To suggest the pattern for raising the fund for capital cost required for this project

XXVIII. Benefit/ Cost ratio should be calculated.
3. Important Dates:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Activity</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Issue of expression of interest on mjp website</td>
<td>25/09/17</td>
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<tr>
<td>2.</td>
<td>EOI conference</td>
<td>04/10/17, Time: 1100 Venue: 2nd Floor, CIDCO Bhawan, CBD Belapur, Navi Mumbai, Maharashtra</td>
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<td>3.</td>
<td>Last date of receipt of queries</td>
<td>04/10/17</td>
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<tr>
<td>4.</td>
<td>Last date of Submission</td>
<td>09/10/17 EoI to submitted by mail on email id of Chief Engineer, Maharashtra Jeevan Pradhikaran Aurangabad - <a href="mailto:cemjpabd@gmail.com">cemjpabd@gmail.com</a></td>
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</tbody>
</table>

3.1 FOR All Clarification/ correspondence address is mentioned as below -------

Chief Engineer, Aurangabad,
Maharashtra Jeevan Pradhikaran,
Opposite Milind College,
Chhavani (Cantonment),
Aurangabad, Maharashtra
PIN - 431002
Ph No- 0240-2371386, 2370326
e-mail ID :- cemjpabd@gmail.com
4. Eligibility Criteria

<table>
<thead>
<tr>
<th>No.</th>
<th>Basic Requirement</th>
<th>Specific Requirement</th>
<th>Documents</th>
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<tbody>
<tr>
<td>1.</td>
<td>Bidder Turnover</td>
<td>The Bidder should have a minimum average annual turnover of INR 100 million over the last three financial years (FY 14-15, FY 15-16 and FY 16-17) from Consulting Services for projects of the water pipe networks and/or water grid</td>
<td>certificate from the Statutory Auditor</td>
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</table>
| 2.  | Technical Criteria| a) Bidder should have experience of at least one project in India for preparation of Feasibility Reports/DPR/Master Plan of water supply projects of more than 2000 km.  
   b) Bidder should have experience of planning, designing, estimation and DPR preparation of at least one International/national piped water grid project similar to a proposed Marathwada water grid where use of water for drinking and industrial/irrigation is considered. | Copies of Work order along with Client Certificate stating completion of the project |
5. ANNEXURE & FORMS
EOI for consultancy services for Preparation of feasibility report required for Integrated Marathawada Water Grid Project

Sept, 2017

Maharashtra Jeevan Pradhikaran (Maharashtra)
Chief Engineer, Aurangabad,
Chhavani (Cantonment)
Opposite Milind college
Aurangabad, Maharashtra,
Expression of Interest (EOI) for Consultancy services

1. Application *(Sample below)*

Date:

To

Chief Engineer,
Maharashtra Jeevan Pradhikaran,
Chhavani (Cantonment), Opposite Milind college,
Aurangabad, Maharashtra - 431002

Sub: Expression of Interest (EOI) for the Consultancy Service for Preparing the Feasibility report for Integrated Marathwada Water Grid Project.

Dear Sir/Madam,

This is in response to your public notice published in [..........................] on [...............], Inviting Expression of Interest for Preparation of feasibility report-for Integrated Marathwada Water Grid Project, we hereby submit our expression of interest. We have attached necessary information according to the standard form. The information furnished by us in this expression of interest is correct to the best of our knowledge. Based on these information, we understand you would evaluate our proposals for mentioned assignment. However I understand that response is not binding for subsequent issue for RFP/RFQ.

.

Sincerely yours,

On behalf of the firm:

Signature: .................

Name of signatory:

Designation of Signatory:

Name of Company:

Company Seal
Expression of Interest, Maharashtra Jeevan Pradhikaran (Maharashtra)

Firm Information

2.1 Name and address

Name of the firm:
Address:
Telephone No: Fax:
Email: Post Box no:

2.2 Date of establishment:

2.3 Core Area of expertise of the firm

2.4 Contact person:

Name:
Designation:
Telephone No: Email:

2.5 GST Registration:

GST No:

2.6 Proposed lead person:

Name:
Education:
Experience year:
Area of Expertise:

2.7 Staff of the firm

No of regular staff:
Total:
Professional staff with technical background:
Professional staff with other background:
Administrative/support staff

3. Supporting documents:

3.1 Company Profile, if any

3.2 Legal documents

- Provide copy of the legal registration, GST and PAN registration certificates of the firm; with their latest renewals where applicable
Expression of Interest, Maharashtra Jeevan Pradhikaran (Maharashtra)

3.3 Work Experience certificate:

- Provide supporting document for the completed contract assignment, especially indicating those which are relevant to proposed assignment and completed within last five years

4. Experience of the Firm

4.1 General experience of the firm

- List all experiences of the firm during the last five years (Ref: Table 1)

4.2 Relevant experience of the firm that best fit with proposed assignment

- List relevant experiences related to this assignment of the firm during the last five years (Ref: Table 2)

4.3 Relevant experience of Firm’s professional staff in reference to the proposed Assignment

- Describe experience of professional staff relevant to the proposed assignment (Ref: Table 3)

4.4 Pool of human resources available to the firm with relevant experience to the proposed assignment

- Describe experience of external professional staff relevant to the proposed assignment (Ref: Table 4)

5. Equipment

5.1 Available Equipment

- Provide list of equipment owned by the firm and relevant for the assignment

6. Annual turnover of last three years (14-15, 15-16 and 16-17) from consultancy services in IRs(millions)
### Expression of Interest, Maharashtra Jeevan Pradhikaran (Maharashtra)

**Table-1: General Experience of the Firm during the Last 5 Years**

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<tr>
<th>S. N.</th>
<th>Name of the assignment</th>
<th>Name of the client</th>
<th>Address, contact and email of the client</th>
<th>Duration of the assignment</th>
<th>Total Cost of the assignment IRs (millions)</th>
<th>Remarks</th>
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Table -2: Relevant Experience of the Firm during the Last 5 Years

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<th>S. N.</th>
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## Expression of Interest, Maharashtra Jeevan Pradhikaran (Maharashtra)

### Table -3: Relevant Experience of the Firm’s Professional Staff

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<tr>
<th>S. N.</th>
<th>Name of Staff</th>
<th>Qualifications</th>
<th>Total years of experience</th>
<th>Relevant experience</th>
<th>Duration</th>
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Table -4: Relevant Experience of the External Professional Staff available to the Firm

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<tr>
<th>S. N.</th>
<th>Name of Staff</th>
<th>Qualifications</th>
<th>Total years of experience</th>
<th>Relevant experience</th>
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