

**KERALA IRRIGATION INFRASTRUCTURE DEVELOPMENT CORPORATION
LIMITED**

(A Government of Kerala Undertaking)

CIN: U45203KL2000SGC014127

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No.KIIDC/EOI/ Micro Irrigation/ 2019-20

Dated: 08. 08. 2019

**INVITATION FOR EXPRESSION OF INTEREST FOR THE EMPANELMENT OF
QUALIFIED DESIGN-PROJECT MANAGEMENT CONSULTANTS FOR MANAGING
THE MICRO IRRIGATION PROJECTS FOR KERALA IRRIGATION.**

Kerala Irrigation Infrastructure Development Corporation Limited (KIIDC) invites expression of interest from established Micro Irrigation Design-Project Management Consultant firms for empanelment of Design-Project Management Consultant (D&PMC) for the Micro Irrigation Projects proposed to be implemented by KIIDC during the Financial years 2019-20, 2020-21 & 2021-22. The project envisages to conduct survey, designs and install the high tech Micro Irrigation Systems of international standards for the benefit of the farming community of Kerala in by developing community irrigation in the designated project areas to be decided by KIIDC in consultation with WRD. The Expression of Interest documents can be downloaded from KIIDC website: www.kiidc.kerala.gov.in. Interested firms may submit their expression of interest with all necessary documents to the Managing Director KIIDC at the above address. The eligibility criteria, scope of work and other details are available at our website. Last date of receipt of proposal :xxx.xxx.2019.

Sd/

Managing Director

Kerala Irrigation Infrastructure Development Corporation Limited

NOTE: Any change or amendment to this notice will be posted on the above website only.

Invitation for Expression of Interest (EoI) for empanelment of Design-Project Management Consultant for managing the Micro irrigation projects for Kerala Irrigation Infrastructure Development Corporation Limited (KIIDC)

1. Instruction to the Applicant.

(A) Background:

The Kerala Irrigation Infrastructure Development Corporation Ltd (KIIDC) is a wholly owned company of Government of Kerala with a paid up capital of Rs. 10 crores, formed for the promotion and development of medium and large scale irrigation and water supply projects units in the State.

The Kerala Irrigation Infrastructure Development Corporation is authorized to undertake the following:

- The construction, execution and subsequent maintenance of projects entrusted by the State Government.
- To utilize the water stored in the reservoir created in the river course for any utilities like drinking water, irrigation, domestic, industrial, tourism, or for any other purpose according to the directions of the Government from time to time.
- To undertake or render any assistance to individual, firm, society, company, corporation, development authority, municipality, panchayath or any department of Government of Kerala with the object of providing irrigation facilities, water supply and distribution system especially to farmers, agriculturists, cultivators and producers so as to improve all types of operation of farming, agriculture, sericulture, horticulture and agriculture and for this to construct wells, ponds, tanks, culverts, canals', bunds, water treatment plants, reservoirs, etc.

At present Kerala, Irrigation Infrastructure Development Corporation Ltd has been entrusted with works related to civil works, irrigation works, micro-irrigation works, environmental support works, etc by different departments of the Government viz. Water Resources Department, Environment and Climate Change Department, Agriculture Department, Tourism Department, Tribal Welfare Department, Social Justice Department, Kerala Water Authority, Hill Area Development Authority, State Planning Board, etc. The works and projects so undertaken by KIIDC have been completed or nearing completion to the utmost satisfaction of the concerned

departments/agencies. Considering the performance of the Company in the execution of the projects/works entrusted to it, these departments, as well as many new departments, have expressed their willingness to entrust more works with the Company.

Water is one of the most important natural resources for the sustenance of life of humans, plants, and animals on earth. As a result, the demand for this precious resource continues to increase and supply of available water for usage continues to decrease. This scenario affects crop production in the first instance especially in arid and semi-arid land and in areas close to the coast where natural water gets mixed with sea water and become unusable. The over-exploitation depletes the water and the groundwater table goes down year by year.

Sustenance of existing farms and addition of farmland are essential to cater to the needs of the growing population while ensuring the farmers get increased farm incomes and profits to adjust to the rising cost of living. A major contributor that supports this just cause is the management of water and soil. This calls for precise and highly efficient irrigation namely the micro irrigation which does the following.

1. Saves waterlabour, power, and energy
2. increase crop production and quality of the crop
3. Eases the fertilizer/ chemical application and improve its efficiency and avoid wastage,
4. improve pest management,
5. increase the feasibility of irrigating difficult terrains,
6. improve the suitability of problem soils
7. Increase tolerance to salinity etc.
8. Over all social, economical and environmental sustainability

Out of 40% of the area covered under irrigation only less 15% are covered under micro-irrigation. The extent of Micro Irrigation is limited in Kerala due to reduced extent of commercial farming, adequate rainfall in the past, poor performance and increased cost of installations. Most installations in Kerala other than in specific areas are with poor designs and they use traditional high flow irrigation heads without any control mechanisms or basis for the irrigation resulting in excess water usage and higher operational costs.

KI IDC proposes to bring in a change and want to install state of the art irrigation systems which are designed keeping in mind the life cycle costs. Such systems use optimum water quantity and

required water quality and overall saving in Water, Power, and Labour which increases the profitability of farming. Experience of such good systems is expected to be a model for the rest of Kerala and encouragement for more farmers to adopt micro irrigation systems.

(B) Objective:

To implement the Micro Irrigation Project envisaged by KIIDC is looking for experienced Micro Irrigation Design-Project Management Consultant firms, who are capable of undertaking survey, designs and supervise & monitor the installation of high tech Micro Irrigation Systems of international standards to benefit the farming community of Kerala.

For this purpose KIIDC is empanelling qualified and experience Design-Project Management Consultant (D & PMC).

Actual assignment of work will be done at a later stage through competitive RFP process among the empanelled firms, as and when needed.

(C) Coverage and need of Empanelment:

The Empanelment will be valid for the period from 2019-20 to 2021-22. Through this empanelment KIIDC expects to achieve the following;

1. Avoid delay in project implementation.
2. Avoid high and varying Cost of the project.
3. Transparency and uniformity in pricing
4. Uniform design and quality standards
5. Uniform efficiency of the system
6. Quality installation
7. Avoid the use of substandard material.
8. Proper after-sales services, etc.

(D) Scope of Works:

Design and Project Management

The KIIDC in agreement with State Government, wishes to create a panel of Design and Project Management Consultant (D& PMC) from among the respondents of this Expression of Interest (“EoI”). The D&PMC, once appointed, shall carry out the following.

1. In consultation with KIIDC, identify and or validate suitable land cluster within the command limits of the designated or expected water source or irrigation canal. For this purpose;
 - a. survey the designated project area for its topography, soil conditions & characteristics, Soil compositions, cultivable areas, Water availability.
 - b. The suitability of the land to establish the need for a project in a particular area shall be validated by a socio-economic analysis.
2. Hold mutually agreed meetings with members to discuss objectives and feasible business options.
3. Carry out general feasibility studies for project implementation which shall include current / potential infrastructure on the selected site and its delivery capacity and future expansion needs. Such feasibility study shall, inter alia, cover the following;
 - a. Identification of water source if any available and plan for a water source if the adequate water source is not available within the project area.
 - b. As power is an essential ingredient, a permanent source of power shall be included in the design which shall include solar power panels / alternate sources as feasible. Innovative ways of power generation may also be proposed.
 - c. Evaluation of the potential of solar installations to provide adequate supply for the irrigation system. The Project Promoter shall plan and include it in the Total Project Cost.
4. Company representative shall be available for briefing/updating/ educating/ explaining/ potential and eligible landowners about the requirement, importance, necessity and advantages of micro-irrigation.
5. Models of group structure shall be proposed by the consultant and assistance shall be extended for the formation of a group structure with landowners (primary farmers) as members
6. Educate, organize and enlighten the members about the idea / concept and make them aware of functioning groups and clarify farmers' doubts.

7. To design a state of the art highly efficient micro-irrigation systems after analyzing all applicable factors. Design shall have a suitable irrigation control systems to automatically control and monitor the irrigation.
8. To obtain approval of the designs from KIIDC
9. To carry out detailed hydraulic analysis of the designs.
10. Detailed project report shall be prepared up on 'Permission to Proceed' by the designed authority of the State Government in writing. The D& PMS shall assess the technical feasibility of the DPR to identify aspects of the technology and design and ensure that they are modular, adaptable and replicable.
11. After the Project-Proponent has obtained the 'Permission to Proceed', Detailed Project Report ("DPR") shall be finalized.
12. Assist the State Government to undertake the bidding activity. For that purpose, prepare bids with drawings and specifications and bill of quantities, assist in the pre-qualification process of suitable firms, assist in selection and in the preparation of agreements.
13. Assist in assessing project revenues, project viability, risk analysis, etc. and to review and advise on the expenses submitted by the project promoter.
14. Monitoring the implementation of the approved/awarded projects during the implementation period
15. To supervise the installation, testing, and commissioning of the irrigation system and hand over the same.

(E) Project Timeline

The timeline for each project will be specified in the RFP to be followed.

(F) Eligibility Criteria

Any interested Design and Project Management Consultant Firms shall be eligible to apply for the assignment, subject to meeting the following eligibility criteria:

- 1. The firm should have executed at least 2 (two) life cycle cost based design/ installation of the higher end state of the art irrigation systems with sensor and weather based controls systems and water quality based injection systems using which precise quantity of fertilized water can be provided as per the actual plant needs.**
- 2. The firm should have executed at least 3(three) unique states of the art irrigation system projects with the weather and sensor-based controls.**
- 3. The firms shall have the minimum the following team in place in India, who are capable of handling the technical, social and management aspects of the assignment:**
 - 3.1 One Project Manager with a degree in Agriculture Engineering and post graduation in Management or Urban & Regional Planning or Sociology and more than 10 years combined experience in Irrigation & Control System Designs, Project Management, Regional Planning, Social Development, etc of which 2 years shall be international experience in large community agriculture or irrigation system projects.**
 - 3.2 One irrigation Design Manager with a degree in agriculture Engineering or Postgraduate degree in Agriculture or Civil Engineering and have more than 10 years experience in Irrigation Designs and Installations.**
 - 3.3 One finance manager with a degree in accountancy and more than 10 years experience in banks or financial institutions**
 - 3.4 Two irrigation engineers with a degree in agriculture or civil engineering and 3 years experience in irrigation projects.**
 - 3.5 Minimum of two social sector experts with experience in promulgation of community irrigation.**
- 4. The firm shall have an adequate team of experienced Surveyors, Inspectors and office staff.**
- 5. The firm shall submit a detailed methodology of design and implementation of a state of the art micro-irrigation system with sensor-based controls.**
- 6. The firm shall have its own R&D or technology tie-ups with reputed research institutes or international players and adequate legally valid agreements to confirm their access to latest technologies in this sector.**

7. The firm shall have an average turnover of 65 lakhs in the last three years (F.Y 2015-16, 2016-17 & 2017-18) of which the last year turn over shall be above one crore.

The firms shall submit sufficient documents as proof of the above claims along with EOI for the purpose of evaluation:-

1. The firm shall submit appointment letters / contract agreements / copy of the invoice for the assignment or a completion certificate from the entity clearly mentioning the reference.
2. The firm shall submit its audited financial statement of the last 3 years or turnover certificate from a Chartered Accountant.
3. The firms shall also submit an affidavit on a stamp paper of Rs. 100/- stating that:
 - a. "It is to certify that the documents submitted along with the EOI are true and correct. If any documents are found false, the firm shall be responsible for the same.
 - b. It is also to certify that the firm has not been blacklisted by any CPSU / PSU. In case it is found that the firm has submitted false documents, the firm shall be debarred from participating in any EOI of KIIDC for a period of five years."

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