

No. CE(P)/EEZ/MI/Metering & Billing Solution/2007/2072-79 Dt. 10.08.'07

NOTICE INVITING EXPRESSION OF INTEREST

The Chief Engineer(Power), Eastern Electrical Zone, Dept. of Power, on behalf of the Governor of Arunachal Pradesh invites **Expression of Interest (EOI)** for selecting Integrated Technology Provider for **“Automatic Meter Reading System” (AMRS), “Prepaid Meter System”** and **“GIS Based IT Solutions for Distribution Management System** on TURNKEY basis across the State.

1. **SCOPE OF THE WORK :**

Design, Manufacture, Supply, Installation, Testing & Commissioning of an Integrated System comprising of Automatic Meter Reading System (AMRS) capable of remote data acquisition from static intelligent meters, Analysis and Distribution Management System and, a State-Of-The-Art Billing system for consumers having the features of Loss Calculation and Energy Accounting for HT Tie Lines, Generating Stations, Inter-Utility Import/Export, Substation Transformers, Distribution Transformers, Feeders etc., as may be identified by the Department. The system shall also integrate GIS database of distribution Network for system management and consumer services. The system shall be developed in a versatile manner to suit the future needs of expansion and changing technology.

The bidder, if awarded shall operate & maintain the whole system for three years after the date of declaration of commercial operation. The targeted objects of the programme shall be covering the following features :-

- (i) All HT meters/Consumer and System Meters are to be automatically read with AMRS as may be identified by the department.
- (ii) All Substations at 11 KV and above, all Generating Stations, all Feeder Lines & Tie Lines above 11 KV are to be automatically read with AMRS as may be identified by the department.
- (iii) Pre-paid Meter with automatic shut down on zero balance to be provided to consumers applying for pre-paid meters to avail special discount on power tariff (Policy contemplated to provide incentive discount on pre-paid meter users)
- (iv) GIS mapping of the entire Distribution network or as may be specified / identified by the department and development of a sophisticated Distribution Management software integrated to the consumer database which would provide not only a strong management tool, but also a consumer friendly service providing user software.
- (v) Providing all necessary infrastructure and hardware requirements to achieve the above objectives.
- (vi) The database shall be made accessible through web-based network for the Department as well as the consumers with various facilities provided

- (vii) In case meter locations have no telecommunication facility being located in remote areas having no nearby public telephone landline, the supplier shall propose different approaches to the problem. The Simplex Mode, SSB transceivers in HF and FM in VHF radio frequencies of the department can also be utilized, for which Simplex Radio Modems may have to be provided for remote locations.
- (viii) The scope also incorporates the built-in facility in the system for all technology requirements such as energy data management for energy trading/forecasting, CRM, MIS, OMS, WMS, SCADA interface etc. The system shall be designed to interface and exchange information with other existing systems of the State, neighboring State or Regional Energy Accounting Systems as the case may be.

2. **SYSTEM PROTOCOL :**

The protocols of data collection / acquisition and information flow of the proposed system may be as under:-

a. **The Meters or Front-end Measuring Instruments (FMI) :**

The meters or FMI shall be intelligent & acts as slaves to the local controller which may have two way communication links by means of wireless technology or PLCC technology or PSTN network between the FMI & the Controller.

b. **The Local Controller :**

The local controller shall be the host server located at the local substation or service out lets or at each Point of Sale (POS), which shall read continuously in a preprogrammed intervals from each meter/FMI linked to it. This controller shall be loaded with all the required controlling and data management soft wares both for the service provider as well as the consumer for access through call centers or through internet. Consumer billing system shall be built into the system capable of accepting all future expansions of systems in automatic as well as manual mode.

c. **The Regional Controller :**

Each local controller/host servers shall be net worked or connected to a Regional / Master Controller for each Region where the database shall be up loaded in a pre-determined or owner selectable intervals through internet or through dial-up networking or through any other alternate links viz, HF/VHF/UHF with radio modems or GSM/GPRS/PSTN/OFC systems. The Regional controller shall also accepts data from SCADA interface. One of the Regional Controllers shall be utilized as Master Controller of the whole system.

3. **SELECTION CRITERION :**

The selection of the bidder shall be on the basis of the merit of the features of the systems in the areas of (a) Data security, (b) User Friendly, (c) Versatility, (d) Consumer friendly, (e) Adaptability with time, (f) Reliability & accuracy, (g) Cost effectiveness, (h) Acceptability of meters of different makes & formats and other criteria set in this notice as below :-

- a) The bidder should have developed / provided this or similar technology to at least five power utilities world wide. Bidder must submit the documentary evidences with contact details of his clients for the same and the department at its discretion will conduct reference checks at the time of evaluation.
- b) Considering the ever-changing IT environment across the world, the technology proposed should be time tested. To ensure that the technology proposed is time tested at least in one of the clients the system must be operational for minimum 5(five) years as on the date of opening of EOI. Bidder must submit the documentary evidences along with contact details for the same and the Department at its discretion will conduct reference checks at the time of evaluation.
- c) The bidder should be an experienced System Integrator of extensively automatic systems, comprising of the systems described in this proposal & should be in operation for at least for five years in anyone of the clients he has developed/provided.
- d) To ensure the multi-vendor capability of the technology, it is mandatory that, it should be capable of reading at least 20 different makes of energy meters with 20 different energy meter protocols capable of accepting data through most of the popular modes / protocols. The necessary documentary evidence should be submitted accordingly.
- e) The bidder should have experienced in development of GIS based Distribution Management technology already in operation in at least five different areas/utilities.
- f) The comparison of the bidders shall not be restricted only under these criteria but the selection shall be based on overall evaluation of the EOIs.

4. WHO CAN APPLY ?

Any of the following can submit EOI for the project :

- (a) Any Enterprise, who is a manufacturer of “Automatic Meter Reading Systems” (AMRS) for commercial and industrial meter data collection and management. (referred to as the “Manufacturer of Technology” (MoT) hereinafter).
- (b) Any enterprise, who is a developer/manufacturer of complete software systems in the field of Energy Billing, Accounting and Audit of electrical energy. (referred to as “Manufacturer of Technology” (MoT) hereinafter)
- (c) Any enterprise, who is a system integrator of hardware, software and system infrastructure experienced in the field of Automatic Meter Reading Technology Systems, Electrical Energy Billing and Accounting through Information Technology & GIS based Database and Distribution Management systems, referred to as Manufacturer / Developer of Technology (MoT).
- (d) Any Partnership or Joint Venture or Consortium of companies / enterprises, at least, one member of the Partnership/JV/Consortium, is a manufacturer, meeting the qualifying criteria required for a Manufacturer of Technology (MOT) or developer of computer software on energy accounting, audit & billing and GIS data management software for Distribution Systems.

(“Manufacturer of Technology” (MoT) means who has developed in house multi vendor, multitasking and fully integrated, automated Automatic Meter Reading and Energy Data Management Software Systems and commissioned successfully)

5. **TERMS & CONDITIONS** :

1. Any member of the Partnership/JV/Consortium can be the leader of the team.
2. While applying for the EOI; the lead member should submit the authorization from its members of the partnership/JV/consortium to ensure the seriousness and sustainability of the entire project.
3. Any enterprise who is not a manufacturer of Technology or whose any of the team member is not a manufacturer of Technology, shall not be entitled to submit its EOI. In that case his bidding will be treated as non responsive and shall be rejected outright.
4. The average combined (of the team) annual turnover for best three years in the last five years should not be less Rs. 15 crores.
5. The technology provider/bidder, if selected, will design, manufacture supply, install, commission and operate and maintain for three years the complete system with Automatic Meter Reading system and the Distribution Management System installed in the State. Therefore a bidder should take care of its operating & maintenance cost during the said period while submitting his offer accompanying terms for payment etc. No other extra claims towards any commercial demands shall be entertained thereafter during the period of three years. During the period of three years, the bidder shall provide necessary training to the staff & officials to enable the State to operate & maintain after 3(three) years. During the 3rd year, the bidder shall have to conduct practical tests & efficacy test allowing the staff to work under their supervision.
6. The bidder should fulfill all qualifying criteria prescribed in the documents. Any deviation from the same shall be treated as non responsive.
7. The bidder shall submit EMD (refundable) Rs. 25,00,000/- (Rupees twenty five lacs) and processing fee (Non-refundable) Rs. 5,000/- (Rupees five thousand) both by Demand Draft drawn in favour of the Chief Engineer(Power), Eastern Elect. Zone, Dept. of Power, Itanagar.
8. The job has to be carried out totally on turnkey contract with standard conditions of the State/CPWD as would be prescribed in the Price Bid documents to be made available to the selected / short listed bidders on a date to be intimated later.
9. The short listed/selected bidders shall be provided with bid documents with all commercial conditions, specifications described therein for final commercial bid against payment of Bid document price of Rs. 15,000/-.
10. The EOI shall be submitted by the bidder in sealed envelope super-scribed as “EOI FOR AMRS & IT SOLUTION FOR DISTRIBUTION MANAGEMENT” containing the following :
 - (i) Smaller sealed envelope superscribed as “PART-I EMD & PROCESSING FEES” containing the DDs for EMD & the processing fee.
 - (ii) Another sealed envelope super-scribed as “PART-II EOI TECHNICAL BIDS” containing the complete Technical offer. *No priced offer or commercial conditions shall be included here.*
11. The EOI (PART-II), Technical bid shall include offer of item wise schedule of quantities with detailed specifications separately provided for each of the items without cost and price.
12. The bidder shall have to gather preliminary information about the state before actually submitting his EOI

13. The selected bidder shall automatically act as consultant to the Department of Power, Govt. of Arunachal Pradesh during the currency of the contract under this scheme in matters of Power Distribution & IT Solutions without extra cost to the State.
14. The undersigned reserves the right to reject all the EOI offers without assigning any reasons thereof.
15. The terms and conditions of this notice do not exhaustively reflect all the conditions of contract document which shall be issued to the short listed/selected bidders at a later stage on cost payment.

The interested bidders may attend the pre-bid meetings with the undersigned anytime from **25th August to 25th September, 2007** by prior appointment with **Shri Rajesh Kamalan, SPA** to Chief Engineer(Power), Eastern Elect. Zone (0360 2217301).

The deadline for submission of sealed EOI is at 1200 hrs on 3rd October,2007 and the same shall be opened at 1500 hrs on the same day in the office chamber of the Chief Engineer(Power), Eastern Elect. Zone, Dept. of Power, Itanagar.

Sd/-

(Er. Anong Perme)
Chief Engineer(Power)
Eastern Elect. Zone
Dept. of Power, Itanagar
Arunachal Pradesh.