TECHNICAL BID

FOR

SUPPLY, INSTALLATION, TESTING & COMMISSIONING
OF ONLINE ELECTRICAL ENERGY MONITORING
SYSTEM AND OCCUPANCY SENSORS IN PEDA OFFICE
BUILDING, SECTOR 33-D, CHANDIGARH

PUNJAB ENERGY DEVELOPMENT AGENCY
SOLAR PASSIVE COMPLEX,
PLOT NO. 1 & 2, SECTOR-33 D, CHANDIGARH-160034
PHONE: 0172-2663328, 2663382, FAX: 0172-2662865
Website: www.peda.gov.in Email: peda.ec@gmail.com
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NOTICE INVITING E-TENDER

E-TENDER NO. PEDA/2016-17/13

Punjab Energy Development Agency (PEDA) invites e-tender from experienced / reputed companies for the following work at PEDA office building, Sector 33-D, Chandigarh.

<table>
<thead>
<tr>
<th>Name of work</th>
<th>EMD (Rs.)</th>
<th>Date of start of downloading e-tender document</th>
<th>Pre-bid meeting</th>
<th>Last Date &amp; time for submission of e-bids</th>
<th>Date &amp; time of opening of Techno-commercial e-bids</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>11.00 AM</td>
<td>02:30 PM</td>
<td>3:30 PM</td>
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</table>

1. Eligibility criteria and other terms & conditions for the work are given in the Tender Document which can be downloaded from www.etender.punjabgovt.gov.in or www.peda.gov.in.
2. Bidders shall have to get themselves registered with etender.punjabgovt.gov.in and get user ID and Password. Class-3 Digital Signature, mandatory to participate in the e-tendering process. For any clarification/difficulty regarding e-tendering process flow, please contact PEDA at 0172-2663328, 2663382, 85588-70510 or 0172-3934667, 92572-09340, 80546-28821, 9988902530.
3. PEDA reserve the right to accept or reject any or all the tenders without assigning any reason thereof.

DIRECTOR
2.0 Background

Punjab Energy Development Agency (PEDA) is the State Nodal Agency for promotion and development of new and renewable sources of energy and it is also the State Designated Agency for implementation of the Energy Conservation Act-2001 in the state of Punjab. PEDA has constructed Solar Passive Complex (PEDA office building) at plot no. 1 & 2, Sector- 33 D, Chandigarh, which is a unique and successful model of energy efficient solar building designed on Solar Passive Architecture.

PEDA office building has been designed and constructed on the concept of Solar Passive Architecture. The main features of the building are oriented as per solar geometry, cavity walls, roof insulation, BIPV, natural lighting & ventilation etc. Since the building is designed on the solar passive concept, students / teachers of Engineering / Architecture colleges have been visiting the building from 2004 to see the unique design for replication of solar passive concepts in the design of new and retrofitting of existing buildings. To showcase / demonstrate more energy efficiency in the PEDA office building, it is proposed to provide online electrical energy monitoring system in the building.

2.1 Introduction: It is planned to install online Energy Monitoring System to monitor & measure the vital electrical parameters & installation of occupancy sensors at our PEDA building. This energy monitoring system should be enabled to integrate more buildings at different locations. There is 25kWp rooftop Solar Power Plant installed in PEDA building so this system should be enabled to generate reports about solar power generation separately. It should also be enabled to generate reports about percentage usage of solar power & raw power as well as solar power used during power cuts. The proposed system shall consist of the following provisions but not limited to the same:

(i) Collection of Electrical data like Voltage, Current, Power, Power Factor, Total Harmonic Distortion by installing meters at different feeders.

(ii) System should be enabled to generate online data reports through web browsing / cloud based system so that it may be feasible to remotely monitor the energy scenario.

(iii) Presentation of the data in a user friendly screen configuration.

(iv) Providing information about energy consumption at mains incomer & in different feeders.
(v) System capacity/configuration should be such that it should be feasible to integrate more buildings (atleast 25) with this existing system.

(vi) Sensitivity/installation technique/quality of the occupancy sensors should be such that it should work in proper manner. It should be feasible to detect the presence of person within room/cabin & should operate accordingly to on/off the appliances (Fans, lights & Air-Conditioners).

3.0 Scope of work
The Scope of work covers supply, installation, testing & commissioning of online Electrical Energy Monitoring system & wireless occupancy sensors as per detail given in the Annexure-I. The scope of work also covers to provide operational training to atleast three persons of PEDA at site regarding the smooth operation and generation of reports in useful formats.

4.0 Eligibility Criteria
The experienced / reputed companies interested for the work should fulfill the following eligibility criteria:

1. The Firm / Company should be in the same field since last three years.
2. The Firm / Company should have completed at least one similar work.
3. The Firm / Company should have valid license issued by Govt. of India or from any State Govt. for electrical works.
4. The Firm / Company should not be involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this contract.
5. The Firm / Company should not be black-listed by any Central/State Government / Public Sector Undertaking in India.
6. The bidder is required to submit self certified documents in support of their claim for 1 to 5 above.

5.0 TIMELINE
The completion period of whole the work is four months from the date of issue of work order.

6.0 SUBMISSION OF BIDS
The completed tenders should be submitted through e-tendering process i.e. technical bid & financial bid separately. The technical bid shall contain all the required documents and testimonials (duly signed) for fulfilling the tender condition. The technical bid furnish by the bidder would be first open and technically evaluated by the committee. The
committee may call the bidders for presentation on the conceptual
design and drawing of the system.

7.0 GUARANTEE
All equipments shall be guaranteed for a period of two years from the
date of taking over the installation by the client against unsatisfactory
performance and/or break down due to defective design, workmanship
of material. The appliances / equipments or components, or any part
thereof, so found defective during guarantee period shall be forthwith
replaced free of cost, to the satisfaction of the PEDA.

8.0 PERFORMANCE GUARANTEE
The company shall bound to submit a bank guarantee for 10% of
contract Value valid for a period of 30 months within 15 days from the
date of issue of work order. The Performance guarantee shall be
released after satisfactory completion of guarantee period of two years.

9.0 EARNEST MONEY
The bidder shall furnish earnest money of Rs. 20,000/- (Rs. Twenty
Thousand Only) in favor of Punjab Energy Development Agency
through to IPG/RTGS mode.

10.0 PAYMENT TERMS
Payment shall be made in the following manner:

1. 60% payment will be released on supply of material and equipment
at site.
2. 30% payment will be released on successful supply, installation,
testing & commissioning to the satisfaction of PEDA.
3. 10% payment will be made after successful completion of
guarantee period.
4. Tax deduction will be made as applicable.

11.0 SPECIAL TERMS & CONDITIONS
1. These conditions of contract are meant to amplify the specifications,
schedule of quantities and drawings in addition to those conditions
specified from time to time as additions or omissions to those said
general conditions of contract.

It is not intent to specify completely herein all aspects of design and
constructional features of equipments and details of the work to be
carried out, nevertheless, the equipment and work shall conform in
all respects to high standards of engineering and design and
workmanship and shall be capable of performing in continuous
commercial operation in a manner acceptable to the Engineer-in-charge who shall interpret the meaning of the specifications and drawings and shall have right to reject or accept any work or material which in his assessment is not compete to meet the requirement of this specifications and or applicable code and standards mentioned elsewhere in this specifications.

2. The tender should be submitted by the experienced / reputed firm / company in the similar field / work.

3. The copies of the relevant technical literature should accompany the tender.

4. Instructions Manuals for operation and maintenance wherever applicable should be supplied along with the equipment free of cost.

5. The bidder shall be responsible for after sale service during the guarantee period and thereafter. The after sales service to be rendered by the bidder during guarantee and thereafter are to be made clear in the tender. The after sale service is essential requirement for PEDA.

6. The equipments / appliances are to be guaranteed for trouble free performance for a minimum period of two years after installation. The defect if any, during the guaranteed period are to be rectified free of charge by arranging free replacement where ever necessary.

7. The complete installation should be initially started and checked out for operational compliance by the company’s representative.

**Deliverables**

1. Submission of Detailed Drawing, Design for approval
2. Approval of the Drawing & Design
4. Installations of online energy monitoring system & occupancy sensors as per BOQ.
5. Testing
6. Commissioning
7. Training
8. Handing over to PEDA along with all documents
12.0 GENERAL TERMS & CONDITIONS:

i. Bids should be submitted through e-tendering process.

ii. Bidders are required to quote rates in the financial bid.

iii. The rates should be through rates including all taxes levies, freight and octroi etc.

iv. The undersigned does not bind himself to accept the lowest rate or any bid and reserve to himself the right of accepting the whole or part of the bid and bidder shall be bound to perform the same at the quoted rates.

v. Sales tax or any other tax on the material or the turnover shall be payable by the bidder and PEDA will not entertain any claim in this respect.

vi. The bid should be valid for a period of six month from the date of submission of bid.


viii. Unless otherwise stated, the contract shall be for the whole work as described in the scope of work. The bidder shall be bound to complete whole the work as described.

ix. **Bidder shall visit the site/building in PEDA Solar Passive Complex before submission of bids to satisfy himself regarding location, prevailing condition of existing work etc.**

x. The following documents shall accompany the bid:
   (a) Proof of submission of Earnest Money.
   (b) Partnership deed or Registration Certificate of the firm/company as the case may be.
   (c) Copy of registration.
   (d) Power of Attorney as required under the rule for joint venture, if any.
   (e) List of works executed and/or in progress with agreement cost and certificate of satisfactory completion & performance from the clients.
   (f) Declaration Letter **(Annexure-II)**
   (g) Any other document required to complete the bid.

xi. Incomplete bid or bids not fulfilling any of the conditions specified above are liable to be rejected without assigning any reason.

xii. The conditional bids and bids without EMD shall not be entertained.
xiii. In case, the bidder fails to complete the work within the stipulated period, penalty will be charged @ 10% of the total value of work order.

xiv. The scope of work can be increased or decreased by PEDA at any time.

xv. PEDA reserves the right to accept or reject any or all the bids without assigning any reason thereof.
1.0 The general technical specifications of Online Energy Monitoring System & Wireless Occupancy Sensor.

1.1 SCOPE

The Scope of work covers supply, installation, testing & commissioning of online Electrical Energy Monitoring system & wireless occupancy sensors including all necessary wiring and other accessories at PEDA office, Sector 33-D, Chandigarh complete in all respect as per site & space availability.

The companies or their authorized dealer are required to give detailed presentation on the conceptual design of the system for the technical evaluation of technical bids.

2.2 Description of Items

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<tr>
<th>S. No.</th>
<th>Description of Item</th>
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<tbody>
<tr>
<td>1</td>
<td>Energy Monitoring System as per detailed hereunder:-</td>
</tr>
<tr>
<td>a</td>
<td>Supply &amp; Installation of Multifunction Meter (Voltage, Ampere, Power Factor, KVA, KVAR, KW, KVAh, KVARh, KWh) with LED display along with Communication Port &amp; THD parameter, with suitable CT/PT Cl 1.0 for Main Electrical Panel. Make (Schneider, ABB, L&amp;T, Secure)</td>
</tr>
<tr>
<td>b</td>
<td>Supply &amp; Installation of KWh, Power Factor, Amperes, Voltage Meter with LED display along with Communication Port, with suitable CT/PT Cl 1.0 for Outgoing Feeders, Along with fully wired up Metering Panel. Make (Schneider, ABB, L&amp;T, Secure)</td>
</tr>
<tr>
<td>c</td>
<td>Supply &amp; installation of PLC based Energy Management System 2*Serial Port, 1 ETH, Suitable to Pick data from 32 Nos. of Modbus Device &amp; along with all necessary Hardware &amp; Communication cables for Meter to Meter And Licensed SCADA software for Power Monitoring along with alarm, Trends &amp; fully reporting features. Licensed WEB Server for monitoring of data from remote locations</td>
</tr>
<tr>
<td>d</td>
<td>Powder Coated Metering Panel for Mounting of Above Meters made by 2mm Sheet with 7 tank treatment process and fully wired up as per requirement along with necessary cut-outs, Terminal Blocks, Glands etc.</td>
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<tr>
<td></td>
<td>Description</td>
</tr>
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<td>2</td>
<td>Supply &amp; Installation of PC with latest configuration (Intel Core i5 3550 processor, 3.3 Ghz, 8 GB DDR3 RAM, 500 GB HDD, DVDRW, Win8 Professional, 32-bit, 22&quot; wide LED monitor) for SCADA System as per SACADA software requirement with Licensed Window, MS Office &amp; Other Necessary Software along with Laserjet coloured Printer suitable for SCADA reporting purpose. Make: Dell/HP, along with 3 KVA UPS for backup make: Su-kam, Microtek, Delta, Luminous.</td>
</tr>
<tr>
<td>3</td>
<td>Supply &amp; Installation of wireless Occupancy Sensors with adjustable delay time &amp; 25A Power Contactor for controlling Lights, Fans &amp; Air-Conditioners by occupancy sensor, with all the wiring &amp; other necessary mounting accessories. Make: Philips/ABB/ Schneider.</td>
</tr>
<tr>
<td>4</td>
<td>Supply &amp; installation of Smart LED TV, size 42 inch for Monitoring of data along with communication cables and other accessories. Make Sony, Samsung, LG.</td>
</tr>
</tbody>
</table>
**Tender Form: Declaration Letter**

Declaration Letter on stamp paper head stating the following:

We are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this contract

We are not black-listed by any Central / State Government / Public Sector Undertaking in India

<table>
<thead>
<tr>
<th>Witness:</th>
<th>Bidder:</th>
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<tbody>
<tr>
<td>Signature</td>
<td>Signature</td>
</tr>
<tr>
<td>Name</td>
<td>Name</td>
</tr>
<tr>
<td>Address</td>
<td>Designation</td>
</tr>
<tr>
<td>Company</td>
<td>Company</td>
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<tr>
<td>Date</td>
<td>Date</td>
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Annexure-III

SPECIMEN FORMAT FOR
CONTRACT AGREEMENT

This agreement made this ______ day of ______, 2016 between M/s. ______________________________ through Sh. _____________ (hereinafter called the Manufacture / Company or Authorized dealer) of the one part, and Punjab Energy Development Agency through the Director, Sh. Balour Singh (hereinafter called the Authority) of the other part.

Whereas, the company has offered to execute the work of _______________________________________ vide work order no. ___________ dated ___________. The completion period is two months from the date of issue of work order.

NOW THIS AGREEMENT WITNESSTH AS FOLLOWS;

1. In this agreement, words and expressions shall have the same meanings as are respectively assigned to them as per the general conditions of contract hereinafter referred to:

2. The following document shall be deemed to form and be constructed as part of this agreement
   i) Notice Inviting e-tenders
   ii) Bid Document
   iii) Work Order

3. The work will be executed strictly according to the scope of work as indicated in the Bid document and work order.

4. The tender on turnkey execution basis. Rates are inclusive of all taxes.

5. All correspondence and modifications of tender offer and acceptance letter will form part of this agreement.

6. In considerations of the payments to be made by the Authority to __________________________ in respect of completed work, or item of work, the bidder hereby covenants with Authority to execute the work in conformity in all respects with the provisions of this Agreement.
7. The authority hereby covenants to pay the bidder, in consideration of execution of works, the price in the manner as specified in this Agreement.

In witness thereof the parties hereto set their respective hands and seals on the day and year first above written.

In presence of

For & on behalf of
M/s.______________________________

Witnesses
1. ____________________________
2. ____________________________

DIRECTOR

______________________________

For & on behalf of
PUNJAB ENERGY DEVELOPMENT AGENCY

Witnesses
1. ____________________________
2. ____________________________