



WATER AND SANITATION AGENCY (LDA)
59-F GULSHAN-E-RAVI LAHORE

Technical Bid

RECEIPT NO. _____

DATED _____

OPENING DATE _____

(FOR OFFICE USE ONLY)

**TENDER NO.P&S/25.01/6191 - ESTABLISHMENT OF SCADA SYSTEM AT 20-
NO ELECTRO MAGANETIC FLOW METERS AT SOURCE OF BOTTLING PLANTS**

NAME OF FIRM _____

ADDRESS _____

COMPLETION PERIOD 50-DAYS

DCR NO. _____ DATED _____ RS. _____

ISSUED BY _____ Name of Branch _____

INSTRUCTIONS FOR BIDDERS

1. The bidder should quote rate after careful study of bid document.
2. The bid must accompany NTN certificate from concerned Income Tax Office without which the bid will not be entertained.
3. Any rebate on tendered rates of item/whole bid cost shall not be accepted.
4. Bid will be **valid for the 120 days**.
5. No tender will be received telegraphically or by post.
6. Conditional tender will not be accepted.
7. The bidder must provide PRA Certificate along with bid.
8. The tenderer shall sing each and every page of tender and contract documents without making any alteration. Noncompliance of this condition shall render the tender liable to rejection.
9. The tenderer shall fill up the bid schedule and indicate the percentage rate above or below the schedule of rates for the "Scheduled Items" on which he is willing to undertake the each item of work. No premium will be quoted by the contractor against Non Scheduled / item rates, failing which the bid may be rejected. The rates of non-scheduled items should be quoted both in figures as well as in words. Similarly the total amount of the individual items should also be mentioned both in figures as well as in words.
10. The procuring agency shall evaluate the technical proposal in the manner prescribed in advance, without reference to the price and shall reject any proposal which does not conform to the specified requirements
11. Any addition, alteration and substitution after submission of bid shall not be accepted

12. During the technical evaluation no amendments in the technical proposal shall be permitted and if the employer deems necessary to seek clarifications it will be sought in-writing
13. After the evaluation and approval of the technical proposals, the procuring agency shall open the financial proposals of the technically responsive bidders, publicly at the time, date and venue announced and communicated to the bidders in advance, within the bid validity period
14. The financial bids found technically nonresponsive shall be returned un-opened to the respective bidders
15. The lowest evaluated bidder shall be awarded the contract
16. Each paper of the tender document has to be stamped and signed by the authorized signatory of the firms / company / contractor failing which Bid may be rejected.
17. Cutting / erasing shall be initialed by authorized person of the company

SPECIAL CONDITIONS

1. The bidders shall have to provide authorization letter from original Equipment manufacturer for equipment that are not manufactured by the bidder.
2. The manufacturer shall be certified as per certifications mentioned in Technical Specification.
3. Relevant certifications must be attached with the technical bid.
4. Bidder may provide equipment with better features / quality / specifications as compared to those mentioned in technical specification (page-08).
5. As-Built documentation and Operation and Maintenance (O&M) Manuals for the complete installed system shall be submitted before formal takeover.
6. As-Built Drawings (to be provided before taking-over certificate).
7. Brochures and Technical Literature shall be provided for each equipment of SCADA System.
8. Surprise visits at SCADA installed / linked sites may be conducted by WASA, any negligence or short coming may result in imposition of fine / penalty.
9. On page 08 technical specifications to facilitate the bidder for the purpose of indicating minimum requirements and major items for each SCADA System for Bulk Flow Meters have been mentioned. However, the bidder shall include all such additional items in bid / proposal; whether, such items / works are mentioned or not in bidding documents which are necessary for the proper functioning of SCADA system at tubewells. Contractor shall be responsible for the complete solution including but not limited to supply, installation, commissioning and operations & maintenance for 03-years of SCADA system and training of WASA Staff for the system operation & maintenance.
10. SCADA system shall enable CCR operators to continuously monitor flow, pressure, water consumption and associated necessary parameters and the working status of all meters installed at concerned sites.
11. Contractor shall be completely responsible to supply, install and commission the RTU, Electrical components / systems, Instruments, field cables (instrument / electrical cables whether internal / external to a panel/room/cabinet or inside / outside of a building) and associated accessories / equipment i.e, wired-up panels, flanges, installation supporting structure / material, and including all labor works such as mechanical, electrical and civil required for the project.
12. All softwares, databases, operating system and web servers must be provided with genuine licenses
13. Perform 30-days mandatory integrated system test for the complete SCADA after completion of works at all sites and CCR in accordance with the procedure and methodology provided after approval from competent authority.
14. The Contractor shall provide WASA Lahore the necessary import documents for items / material / equipment that are sourced / bought from foreign firms at the time of delivery concerning SCADA System.
15. The Contractor shall pay all the duties, taxes and transportation charges etc by itself and provide copy to WASA
16. The Contractor shall provide shipping documents of the imported equipment / material supplied.
17. The successful bidder shall have to arrange pre-shipment inspection at manufacturer's site of work by a firm of international repute regarding their correctness and genuineness in respect of specification mentioned in the Technical Specification. The certificate so issued be provided at the time of delivery at site failing which material will not be accepted.
18. The Contractor shall attach relevant documents as a support which is required in technical evaluation criteria duly signed and stamped by bidder otherwise bidder

- shall not be qualified / responsive.
19. The successful bidder shall have to provide one (01) year Warranty of all components of SCADA system and shall be responsible to rectify any default including replacement with new one.
 20. The decision of Procuring agency / employer shall be final and acceptable by the bidders.
 21. O&M of 03-years of all components of SCADA system shall be the responsibility of contractor and the contractor shall rectify any default.
 22. **Mode of Payment:**
 - i) **90%** of Installation and commissioning amount will be made on successful commissioning of SCADA System and **10%** shall be retained by WASA as retention money which will be released 06-months after / beyond successful operation and maintenance/ handing / taking over.
 - ii) At the end of each quarter the contractor may submit an invoice for payment of O&M services provided in the last quarter and **10%** of each invoice shall be retained by WASA as retention money which will be released 06-months after / beyond successful operation and maintenance/ handing / taking over.
 23. The Contractor shall ensure by his own means and guarantee that the SCADA System in every aspect shall be in accordance with the certificates mentioned in Technical Specification.
 24. If the necessitated scope of work is not achieved due to but not limited to compatibility issue, the contractor / firm shall be solely responsible and shall take proper action to ensure smooth running / working of SCADA System. The nature of SCADA system inherits different constituents and their variations, such changes shall not prevent contractor / firm from achieving the results as desired by WASA Lahore.
 25. Technical bid must be accompanied by a Bid Security **Rs.266,727/- (Rupees Two Hundred Sixty Six Thousand Seven Hundred Twenty Seven Only)** in the shape of **CDR** in favour of **Director Procurement & Stores WASA** which is **3%** of estimated cost shall be submitted with technical bid failing which the bid may be rejected.
 26. The successful bidder shall have provide (E-Stamp Paper according to stamp act article No.22-A(a)(iv) for execution of contract agreement within 15-days of issuance letter of Acceptance.
 27. The bidding documents consist of **11-pages** of **Technical bid** (Instructions to bidder, Special Conditions, Eligibility and Qualification Criteria and other necessary forms / documents to be added with technical bid). **6-Pages** of **Financial bid** (Bill of Quantities and forms / documents to be added with (Financial bid)). **60-pages** of **WASA's General Directions for Tender**
 28. Joint Venture must comply with the following requirements:
 - a) Following are minimum requirements for Joint Venture: -
 - i) In accordance with PEC Bye Laws, Foreign Firms are required to form JVs with local Firms.
 - ii) The joint venture must collectively satisfy the technical evaluation criteria. Heretofore, for which purpose the relevant figures for each of the partners shall be added together to arrive at the JV's total capacity. Individual members must satisfy each of the requirements of paras 29, 30 & 31 heretofore.
 - iii) The lead partner shares shall not be less than 50% in case of two (02) firms JV and shall not be less than 34% in case of three (03) or more than three (03) firms JV and shares of each partner of JV may be as they deem feasible.

- iv) The JV agreement must be registered with sub registrar mentioning the joint and several liabilities with respect to the contract and Joint account of the firms to whom the transactions shall be made.
- b) Any change in a technically responsive/ qualified JV after evaluation, shall be subject to the written approval of the client such approval may be denied if: -
 - i) Partner(s) withdraw from a JV and remaining partners do not meet the qualifying / technical evaluation criteria;
 - ii) The new partners to a JV are not stand qualified/ responsive individually or as another JV; or
 - iii) In the opinion of the Client, a substantial reduction in competition would result.
 - iv) One firm shall not be partner in more than one JV.
- c) Bid shall be signed by all members in the JV so as to legally bind all partners, jointly and severally, and any bid shall be submitted with a copy of the JV agreement dully registered with sub-registrar providing the joint and several liabilities with respect to the contract.

29. The technically evaluation of a JV does not necessarily qualify any of its partners individually or as a partner in any other JV or association. In case of dissolution of a JV, each one of the constituent firms may be declared qualified / technically responsive if they meet all the requirements as described in technical criteria and any partner of JV has requested/shall request for the same and then his qualification shall be subject to the written approval of the Client.

30. The Bidder (including all members of a JV) must not be associated, nor have been associated in the past, with the consultants or any other entity that has prepared the design, specifications and bidding documents for the project, or was proposed as Engineer for the contract, over the last five (05) years. Any such association may result in disqualification/ non-responsiveness of the Bidder.

31. A qualified firm/contractor/JV may participate only in one bid only for the contract. If a firm submits more than one bid, singly or as a JV, all bids including that bidder will be rejected.

Equivalent : Equivalency of any component shall be subject to prior approval from Engineer Incharge.

PART - A

TECHNICAL EVALUATION CRITERIA

- i. Authorizations for relevant equipment as required in technical specifications from Original Equipment Manufacturer.
- ii. Registration with PEC in at least C6 Category and with specialization in relevant codes i.e. (EE02/EE07/EE08) only for lead partner in case of JV.
- iii. Equipment shall be certified / approved for End User and Type Test through relevant certifications (CE/FM/CSA/UL/IEC/EIA/TIA/ISO/EAC or equivalent) as mentioned in technical specifications.
- iv. Registration certificate / Memorandum of Association / Article of Association/Partnership deed registered with sub-registrar/Affidavit of sole proprietorship.
- v. Registration with **FBR & PRA (NTN & PNTN)**.
- vi. Experience of *similar nature i.e supply and installation / establishment of SCADA system in atleast **01-No** *similar project having cost **05-Million** in last **10 years** with Governments /PublicDepartments / Private Organization.
- vii. Average annual turnover of **Rs.14 Million** in last **03-years**(to be proven through certified / attested last **03-years** audit report).
- viii. Net worth / credit facilities / liquid assets of **Rs.09-Million**.
- ix. Personal Capabilities having **01** No. Electrical / Mechatronics Engineer and **01** No. Computer / Electronics Engineer.
- x. Audited financial reports of last three **(03)** years from reputed chartered accountant firm.
- xi. No Black Listing and Litigation on Judicial stamp paper of **Rs.100**.
- xii. The technical evaluation shall be on knockout basis. A bidder must have to fulfill all requirements as stated above.

***Similarity:** shall be based on physical size, complexity, methods/technology and or other characteristics described in Part A.

TECHNICAL SPECIFICATIONS
TENDER NO.P&S/25.01/6191 - ESTABLISHMENT OF SCADA SYSTEM AT
20 NO ELECTROMAGNETIC FLOW METERS AT SOURCE OF BOTTLING
PLANTS

Sr/ No.	Description	Bidder to Specify
1	<p>BULK FLOW METERS (Instrumentation, Control & Monitoring Equipment)</p> <p>Providing and Installation of a system containing SIM cellular data collection device/RTU, having capabilities to collect and send data from battery powered Electromagnetic Bulk Flow Meters, including Networking features/Programming languages as per IEC 61131-3 with fast programmable data upload interval, communication with Ethernet RS-485 interface & protocols, with an anteenena and micro SD interface up to 32/64 GB.</p> <p>Moreover, device should have compatibility of interface, GSM/GPRS/4G/DL/HF (DL/PL) modem with an expansion compatibility of wifi interface/5G encrypted by AES etc, Wireless technology GSM/Edge/UMTS/HSPA+ etc.USB 2.0 host up to 480 Mbps, RTC Timer ,watch Dog timer & Alarm Services via SMS and GPRS.</p> <p>Serial Interface: Serial Interface (1 x RS-232 + 1 x RS-485 or 2 x RS-232 or 2 x RS485 with ESD protection ±15 KV and Baud Rate (57.6 Kbaud-to 230.4 Kbaud)</p> <p>General Requirements/Certification: Device must have compatibility with environmental needs including surrounding air, operating temperature (-10 to 55)°C and storage temperature (5 to 45)% with protection class at least IP-65 and surge protection up to level (3) and relative humidity (5 -95)% and having vibration resistance according to IEC 60068-2-6/60068-2-64 and Shock resistance 15g per IEC 60068-2-27/60068-2- 64, and supported for 9-60 V, Power 100mA@12V,operatable at UPS: (Local / branded / Equivalent) having backup up to 8 hours in case of failure of electricity. And device must be approved by FCC, NBTC, CE, RCM, PTCRB, GCF, IC, IMDA, EAC etc.</p> <p>Country of Origin: America, Europe, Japan or Equivalent.</p>	

Sr/ No.	Description	Bidder to Specify
2	<p>IoT Cabinet</p> <p>IoT cabinet suitable for installation of RTU/PLC and relevant hardware accessories and features to fulfill site requirements. Digital Display with Voltage protection indicator, Current protection indicator, Three phase voltage indicator, The cabinet material should have material MS, with approx. thickness of 1.50mm Mild Steel with approx. 2mm Galvanized mounting plate, Iron-phosphate plated, RAL-7035 Rough Epoxy, polyester powder-coating 8 ~ 10 um phosphate, :IP 66, (EN 60 529) EAC approved accessories complete with door lock and supporting accessories and relevant components to fulfill requirement of data collection system. The cabinet should be facilitated with transformers for surge protection (Min Level 3), Power supply provided via UPS should be compatible to run system including UPS having backup for 08 hours in case of failure of main electricity. The supply should be protected and isolated via surge protection compatible with the system. The communication cable should be industrial grade CAT-6 suitable for communication of data of the system as per site requirement.</p> <p>Country of Origin Cabinet Casing: Local / Equivalent Other Accessories: Branded/ Equivalent</p>	
3	<p>P/I CENTRAL CONTROL ROOM (CCR)</p> <p>SCADA Server with server hosting for web services, Monitor, keyboard, mouse, peripheral interface cards and operating system including operation/ Production Reports daily, weekly and monthly, Intelligent Dashboards/Reports for web based portal with Comprehensive Dash Board for Remote Monitoring of flow meter data Responsive interface, Reporting module and admin/stakeholder access, Option of Storing and retrieving data to Open Database i.e. MySQL, SQL or equivalent, Alarm Logger, Event Logger, Multiple Use /Access levels or Logins, Option of remote web client, Graphical User interfaces /Mimics, Multiple Trends /Graphical Charts with various options of objects such as circle, square, ellipse, etc including color animation and Spare Capacity for future expansion upto 30%.</p> <p>Control Station including compatibility with Sr.No. 1, Software with genuine licenses for Window and RTU, Operator station (SCADA System) Engineering Workstation (PC) Tower Computer:</p>	

	<p>Core i5 and above with 4GB RAM 512 GB hard disk HDMI interface 52X - CD ROM 30" LED (DELL / hp / Equivalent (As per Satisfaction of Engineer Incharge)</p> <p>Other Display: Wall/Desk mounted LED Display 55" (SAMSUNG / SONY /Equivalent (As per Satisfaction of Engineer Incharge))</p> <p>Printer: A3/A4 Color Laser Printer wireless and network capable (hp / Equivalent (As per Satisfaction of Engineer Incharge))</p> <p>Networking: Local Area network (LAN) comprising router and other networking Equipment</p> <p>UPS: Providing and Installation of Uninterruptible Power Supply (UPS) Compatible to run the system at peak load for 8 hours.</p>	
4	<p>Network Charges</p> <p>PTCL static IP along with internet connection fee per year for Central Control Room(CCR) and Mobile Sims (For Modem) for connectivity of all sites. Mobile sim Data Charges for Remote sites connectivity</p>	
5	<p>Services</p> <p>Engineering services including , Programming, Testing & Commissioning charges, Installation of Panels and Modules</p>	
6	<p>Operation & Maintenance</p> <p>Operation & Maintenance of 3 years of complete SCADA system i) O&M of 3 years including software support, Services of All Devices at Remote site, Software subscription Charges. General Checkup Of CPU, Batteries, Per year System Performance Reports</p>	

Name of Firm _____

Address _____

Signature _____

TECHNICAL PROPOSAL SUBMISSION FORM

(Annexure-A)

To,

**Director Procurement & Stores,
WASA, LDA, Lahore.**

Gentlemen:

1. As security for the due performance of the undertaking and obligations of this tender I / We submit herewith a deposit at call receipt No. Dated in the amount of Rs. (Rupees) From the Bank Branch drawn in your favour or made payable to you as earnest money, the full value of which will be absolutely forfeited to Government without prejudice to any other rights or remedies of the said Government, should I / We withdraw or modify the tender within the validity period of One Hundred Twenty (120) days, following the date of receipt of tender.
2. We _____ (*Name and Address of the Tender*), having read, understood and accepted the Tender Document, including the Addendum (s), if any, offer to provide telecommunication services to Water and Sanitation Agency LDA, Lahore in conformity with your Tender Notice dated _____ in daily The _____ Newspaper.
3. We undertake that the Tender shall have a minimum validity period of **120-days** from the last date for submission of the Tender and may be accepted at any time before the expiration of that period.
4. We undertake to provide the Performance Security to give satisfactory assurance of our ability and intention, for due performance / execution of the Contract in accordance with the terms and conditions of the Contract, in case of the tender.
5. We undertake to be bound by the Tender and the Acceptance Letter, which shall constitute a contract, until execution of the formal Contract Agreement.

Date this _____ day of _____ 2019

TENDERER

Signature: _____
CNIC No.: _____
Name: _____
Designation: _____
Address: _____

WITNESSES

Signature: _____	Signature: _____
CNIC No.: _____	CNIC No.: _____
Name: _____	Name: _____
Designation: _____	Designation: _____
Address: _____	Address: _____

Note: The Tender Form should be on the letter head of the Tenderer.



WATER AND SANITATION AGENCY (LDA)

59-F GULSHAN-E-RAVI LAHORE

Financial Bid

RECEIPT NO. _____

DATED _____

OPENING DATE _____

(FOR OFFICE USE ONLY)

TENDER NO.P&S/25.01/6191 - ESTABLISHMENT OF SCADA SYSTEM AT 20- NO ELECTRO MAGANETIC FLOW METERS AT SOURCE OF BOTTLING PLANTS

NAME OF FIRM _____

ADDRESS _____

COMPLETION PERIOD 50-DAYS _____

DCR NO. _____ DATED _____ RS. _____

ISSUED BY _____ Name of Branch _____

INSTRUCTIONS FOR BIDDERS

1. The bidder should quote rate after careful study of bid document.
2. The bid must accompany NTN certificate from concerned Income Tax Office without which the bid will not be entertained.
3. Any rebate on tendered rates of item/whole bid cost shall not be accepted.
4. Bid will be **valid for the 120 days**.
5. No tender will be received telegraphically or by post.
6. Conditional tender will not be accepted.
7. The bidder must provide PRA Certificate along with bid.
8. The tenderer shall sing each and every page of tender and contract documents without making any alteration. Noncompliance of this condition shall render the tender liable to rejection.
9. The tenderer shall fill up the bid schedule and indicate the percentage rate above or below the schedule of rates for the "Scheduled Items" on which he is willing to undertake the each item of work. No premium will be quoted by the contractor against Non Scheduled / item rates, failing which the bid may be rejected. The rates of non-scheduled items should be quoted both in figures as well as in words. Similarly the total amount of the individual items should also be mentioned both in figures as well as in words.
10. The procuring agency shall evaluate the technical proposal in the manner prescribed in advance, without reference to the price and shall reject any proposal which does not conform to the specified requirements
11. Any addition, alteration and substitution after submission of bid shall not be accepted
12. During the technical evaluation no amendments in the technical proposal shall be permitted and if the employer deems necessary to seek clarifications it will be sought in-writing

13. After the evaluation and approval of the technical proposals, the procuring agency shall open the financial proposals of the technically responsive bidders, publicly at the time, date and venue announced and communicated to the bidders in advance, within the bid validity period
14. The financial bids found technically nonresponsive shall be returned un-opened to the respective bidders
15. The lowest evaluated bidder shall be awarded the contract
16. Each paper of the tender document has to be stamped and signed by the authorized signatory of the firms / company / contractor failing which Bid may be rejected.
17. Cutting / erasing shall be initialed by authorized person of the company

Bid Schedule
TENDER NO.P&S/25.01/6116 - ESTABLISHMENT OF SCADA
SYSTEM AT 2 NO TUBEWELLS FOR WASA LAHORE

Sr. No.	Description	Unit.	Qty	Unit Price	Total Amount
1	<p>BULK FLOW METERS (Instrumentation, Control & Monitoring Equipment)</p> <p>Providing and Installation of a system containing SIM cellular data collection device/RTU, having capabilities to collect and send data from battery powered Electromagnetic Bulk Flow Meters, including Networking features/Programming languages as per IEC 61131-3 with fast programmable data upload interval, communication with Ethernet RS-485 interface & protocols, with an anteeena and micro SD interface up to 32/64 GB.</p> <p>Moreover, device should have compatibility of interface, GSM/GPRS/4G/DL/HF (DL/PL) modem with an expansion compatibility of wifi interface/5G encrypted by AES etc, Wireless technology GSM/Edge/UMTS/HSPA+ etc.USB 2.0 host up to 480 Mbps, RTC Timer ,watch Dog timer & Alarm Services via SMS and GPRS.</p> <p>Serial Interface: Serial Interface (1 x RS-232 + 1 x RS-485 or 2 x RS-232 or 2 x RS485 with ESD protection ± 15 KV and Baud Rate (57.6 Kbaud-to 230.4 Kbaud)</p> <p>General Requirements/Certification: Device must have compatibility with environmental needs including surrounding air, operating temperature (-10 to 55)$^{\circ}$C and storage temperature (5 to 45)% with protection class at least IP-65 and surge protection up to level (3) and relative humidity (5 -95)% and having vibration resistance according to IEC 60068-2-6/60068-2-64 and Shock resistance 15g per IEC 60068-2-27/60068-2- 64, and supported for 9-60 V, Power 100mA@12V,operatable at UPS: (Local / branded / Equivalent) having backup up to 8 hours in case of failure of electricity. And device must be approved by FCC, NBTC, CE, RCM, PTCRB, GCF, IC, IMDA, EAC etc.</p> <p>Country of Origin: America, Europe, Japan or Equivalent.</p>	Each	20		
2	<p>IoT Cabinet</p> <p>IoT cabinet suitable for installation of RTU/PLC and relevant hardware accessories and features to fulfill site requirements. Digital Display with Voltage protection indicator, Current protection indicator, Three phase voltage indicator, The cabinet material should have material MS, with approx. thickness of 1.50mm Mild Steel with approx. 2mm Galvanized mounting plate, Iron-phosphate plated, RAL-7035 Rough Epoxy, polyester powder-coating 8 ~ 10 um phosphate, :IP 66, (EN 60 529) EAC approved accessories complete with door lock and supporting accessories and relevant components to fulfill requirement of data collection system. The cabinet should be facilitated with transformers for surge protection (Min Level 3), Power supply provided via UPS should be compatible to run system including UPS having backup for 08 hours in case of failure of main electricity. The supply should be protected and isolated via surge protection compatible with the system. The communication cable should be industrial grade CAT-6 suitable for communication of data of the system as per site requirement.</p> <p>Country of Origin Cabinet Casing: Local / Equivalent Other Accessories: Branded/ Equivalent</p>	Each	20		

Sr. No.	Description	Unit.	Qty	Unit Price	Total Amount
3	P/I CENTRAL CONTROL ROOM (CCR)				
	<p>SCADA Server with server hosting for web services, Monitor, keyboard, mouse, peripheral interface cards and operating system including operation/ Production Reports daily, weekly and monthly, Intelligent Dashboards/Reports for web based portal with Comprehensive Dash Board for Remote Monitoring of flow meter data Responsive interface, Reporting module and admin/stakeholder access, Option of Storing and retrieving data to Open Database i.e. MySQL, SQL or equivalent, Alarm Logger, Event Logger, Multiple Use /Access levels or Logins, Option of remote web client, Graphical User interfaces /Mimics, Multiple Trends /Graphical Charts with various options of objects such as circle, square, ellipse, etc including color animation and Spare Capacity for future expansion upto 30%.</p> <p>Control Station including compatibility with Sr.No. 1, Software with genuine licenses for Window and RTU, Operator station (SCADA System)</p> <p>Engineering Workstation (PC)</p> <p>Tower Computer: Core i5 and above with 4GB RAM 512 GB hard disk HDMI interface 52X - CD ROM 30" LED (DELL / hp / Equivalent (As per Satisfaction of Engineer Incharge)</p> <p>Other Display: Wall/Desk mounted LED Display 55" (SAMSUNG / SONY /Equivalent (As per Satisfaction of Engineer Incharge))</p> <p>Printer: A3/A4 Color Laser Printer wireless and network capable (hp / Equivalent (As per Satisfaction of Engineer Incharge))</p> <p>Networking: Local Area network (LAN) comprising router and other networking Equipment</p> <p>UPS: Providing and Installation of Uninterruptible Power Supply (UPS) Compatible to run the system at peak load for 8 hours.</p>	Each	1		

Sr. No.	Description	Unit.	Qty	Unit Price	Total Amount
4	Network Charges				
1	PTCL static IP along with internet connection fee per year for Central Control Room(CCR) and Mobile Sims (For Modem) for connectivity of all sites.	Job/year	1		
	Mobile sim Data Charges for Remote sites connectivity	Job/year	1		
1	Services				
	Engineering services including , Programming, Testing & Commissioning charges, Installation of Panels and Modules	Job	1		
2	Operation & Maintenance				
	Operation & Maintenance of 3 years of complete SCADA system				
	i) O&M of 3 years including software support, Services of All Devices at Remote site, Software subscription Charges. General Checkup Of CPU, Batteries, Per year System Performance Reports	Job	1		

Name of Firm _____

Address _____

Signature _____