



PUNJAB SKILLS DEVELOPMENT FUND

Tender Document

Provision of the Datacenter Solution with Complete Installation & Commissioning

March, 2019

Submission Date for Sealed Bids: April 01, 2019, by 11:00 AM

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Skills For Success

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1- Invitation to Bids

Punjab Skills Development Fund (PSDF) is a section 42, not-for-profit Company set up under the Companies Ordinance 1984 by the Government of the Punjab. Sealed bids/proposals will be invited from established firms/companies for - Provision of the Datacenter Solution with Complete Installation & Commissioning (hereafter called as bidders) to PSDF. All interested and eligible bidders are requested to go through the Tender document and provide relevant information along with supporting documents mentioned in this tender document.

2- Instruction to Bidders

The selection of Goods & Services will be based on **Least Cost Selection Method** through **Single Stage Two Envelopes** bidding procedure.

- a) The bid shall be a single package consisting of two separate envelopes, containing separately Technical and Financial proposals. The envelopes shall be marked as (**Provision of the Datacenter Solution with Complete Installation & Commissioning to PSDF**) "Technical Proposal" and "Financial Proposal"
- b) The bidders shall submit complete standard documentation appended as Annexes along with any specific documents required by PSDF.
- c) In the first instance, the "Technical Proposal" shall be opened and envelope marked as "Financial Proposal" shall be retained unopened in the custody of PSDF.
- d) PSDF shall evaluate Technical Proposal in a manner prescribed in the document, without reference to the price and condition shall be entitled to reject any proposal which does not conform to specified requirements. During the technical evaluation, no amendments in the Technical Proposal shall be permitted.
- e) After the evaluation and approval of technical proposals, PSDF shall open financial proposals of the technically accepted bids, publicly at a time, date and venue announced and communicated to the bidders in advance, within the bid validity period.
- f) The financial bids of the organizations found technically non-responsive shall be returned unopened to the respective bidders. The technical and financial proposal will be evaluated based on PSDF evaluation criteria as provided in this document.
- g) This document has different sections carrying information of eligibility, technical evaluation and terms of references, conditions of tender, type of contract etc. to assist potential contractors to develop their technical proposals.
- h) Financial bids will only be opened for bids that have been technically accepted at the predetermined time, venue and date communicated to the bidders.
- i) Minimum passing marks are 65, a bidder who shall obtain minimum 65 marks or more shall be marked as technically qualified and shall be considered for financial bid opening.
- j) The technical evaluation shall be done for a pass and fail purpose only and no weightage shall be given even, if the bidder scores 65 or more than 65 marks in the technical evaluation.
- k) A joint venture of any kind is not allowed to participate in the bid. (Please provide a declaration on letterhead)

3- Conditions for Eligibility

The successful bidder, fulfilling the following criteria, will be considered as an eligible bidder for the evaluation process;

- a) The Firm/Company must be regular tax-payer (Last year tax return, 17-18)
- b) Provide NTN, GST/PST details, if applicable. (Copy of Registration is required)
- c) Evidence of the firm/company's registration/incorporation is required. (Copy of certificate required)
- d) Must not be blacklisted by any government / bi-lateral/multi-lateral financial institution/any organizations (Declaration on stamp paper)
- e) Bidding Vendor must be Tier 1 Partner of the Principle and complete solution should be provided by a single principle.

Any, failure to provide information as per the above mentioned or fulfillment under the requirement of, "Eligibility Criteria Checklist" (**Annex B**) shall be deemed to be or declared ineligible for the bidding process and its technical evaluation will not be carried out.

Please mark/flag the supporting documents for Eligibility Criteria Checklist.

4- Terms of Reference/Scope of Work

1. Specification, Quantity, and scope of work is attached in **Annex-E**
2. PSDF IT department shall inspect and check the **Datacenter Solution with Complete Installation & Commissioning** supplied at the time of the delivery.
3. A visit and confirmation letter from the principle that all the execution is done by the vendor is inline and as per standards laid by the principal.
4. The bidder will submit complete specifications of required **Datacenter Solution with Complete Installation & Commissioning** with pictures and complete specification and compliance with items/specifications required (as per Annex E) in the technical proposal for approval of PSDF.
5. UAT and its signoff of complete infrastructure installed from PSDF IT department.
6. Training of Technical Staff on the Datacenter configurations, troubleshooting, and its Usage is mandatory.
7. Bidder will provide basic operations and troubleshooting document of the commissioned Solution.
8. The bidder may request time to visit the site at least 4 days before the deadline date of submission of bids for the estimation of passive work mentioned in Annex-E. Request for the site visit can only be made through email at procurement@psdf.org.pk, after submission of bids no site visit will be entertained.
9. The total quantity of items and passive work for **Datacenter Solution with Complete Installation & Commissioning** required mentioned in Annex-E, however, PSDF can increase or decrease the quantity or passive work of **Datacenter Solution with Complete Installation & Commissioning** at the time of signing the contract.
10. **Compliance to the following SLA (signed and stamped on letterhead is required):**
 - a. All parts replacement or issue rectification will be made within 24 hours of issue notification by PSDF. In case it exceeds 24 hours for rectification the vendor would give equivalent backup equipment.
 - b. It is mandatory for the bidding organization to keep all the items in their backup inventory for rectification within 24 hours of issue reporting.
 - c. Three years warranty backed by the principal of all parts and equipment deployed.
 - d. One-year replacement warranty for Battery Bank, Battery Banks should be checked, and the report will be shared with PSDF in every quarter.

5- General or Special Conditions of Contract

- a) PSDF reserves the right to award or not to award the contract and Bidders who fail to complete and attach all the relevant documents shall deem to be or declared to be ineligible.
- b) No tender document shall be accepted, if not **properly sealed, marked, signed and stamped**.
- c) Bidders to ensure that their bid documents are submitted before the closing time and date of the tender. **Bids received after the closing time and date will NOT be accepted.**
- d) All documents and information received by PSDF from applicants will be treated in strictest confidence. Documents submitted to PSDF will not be returned.
- e) All expenses related to participation in this bidding document shall be borne by the bidder.
- f) Documents shall be submitted in hard copies in a sealed envelope marked as "PROPOSAL" as a hard copy in a sealed envelope for "Provision of the Datacenter Solution with Complete Installation & Commissioning to PSDF." The envelope containing hard copies of the technical proposal and financial proposal shall be received on the postal address given below.

Procurement Department: -

Punjab Skills Development Fund, 21-A, H-Block, Dr. Mateen Fatima Road, Gulberg-II Lahore
E-mail: Procurement@psdf.org.pk Phone: +92-42-35752408-10, Fax: +92-42-35752190.

- g) PSDF also reserves the right to verify any information provided by the applicants or may visit business premises to verify the information shared in tender documents.
- h) Bidder presenting information intentionally incorrectly or fraudulently will be disqualified.
- i) Questions about this technical proposal can be made only in writing: a letter or an e-mail and must be asked by or before 3 days of bid submission date. For any other related information please contact the undersigned.
- j) PSDF shall enter into a formal contract with the successful Bidder only and reserves the right to terminate the contract if the performance of Bidder is unsatisfactory.

*** Although adequate thought has been given in the drafting of this document, errors such as typos may occur without any responsibility on PSDF's part.

6- Form of Contract

- a) The successful bidder shall sign and execute the standard contract of PSDF including any general conditions on the terms and conditions specified therein. Any amendment to the standard contract shall be made with the mutual consent of both parties.
- b) The duration of the contract shall be three years, if PSDF chooses to cancel the contract during the contract period, a notice period of one month will apply.
- c) The successful company will sign a contract and shall provide the agreed services within the stipulated agreed time of issuance of the Purchase Order.
- d) The penalty shall be imposed on the successful bidder if he fails to deliver the goods on agreed terms & conditions mentioned in the bidding document and contract.
- e) In case of any dispute regarding goods/services, the decision of the PSDF shall be final & binding.
- f) The PSDF may reject all bids or proposals at any time prior to the acceptance of a bid or proposal. PSDF shall upon request communicate to any Firm/Company, the grounds for its rejection of all bids or proposals but shall not be required to justify those grounds.
- g) The PSDF undertakes to pay the valid and complete invoice based on the successful performance of the successful bidders within thirty (30) days after the delivery of goods.
- h) All taxes will be deducted in accordance with applicable laws.
- i) The bid shall remain valid for the period of **120 days** from the date of opening.

7- Form of Bid

The Bidders shall follow the Form of Bid specified in **Annex F**.

8- Delivery Timelines

Datacenter Solution with Complete Installation & Commissioning shall be provided within 6-8 weeks from the date of PO issuance.

9- Completion Date

Complete Installation & Commissioning within 2-3 weeks after delivery.

10- Performance Security

- a) The successful bidder will submit a performance guarantee (or any other form of performance security acceptable to PSDF) of 2% of contract value at the time of signing the contract which will be returned after completion of the contract.
- b) Any delay in delivery of Goods/Services or violation of SLA as per agreed time frame will be subject to a penalty of @1% per day, up to a maximum 10% of the total contract value.

11- Technical Evaluation Criteria

This document is governed by the procedure approved by PSDF management and PSDF, Procurement Rule, 2016. The technical proposal of eligible organizations will be evaluated against requirements specified in the in "**Annex – D**".

12- Financial Evaluation Criteria

The Financial Proposals of only eligible bidders with technically qualified specifications will be opened in the presence of all the bidders. All bids shall be opened publicly in the presence of bidders or their representatives who may choose to be present, at the time and place announced prior to the bidding and person designated for PSDF shall read aloud the unit price as well as the bid amount and shall record the minutes of the bid opening. All bidders shall sign an attendance sheet at the time of bid opening. Please provide information regarding Financials in Annex – F".

13- Submission of Bids (Technical and Financial Proposal): -

A complete bid containing Technical and Financial proposal along with Bid Security, all required information and documentary evidence must be submitted before closing dated i.e.-April 01, 2019 at 11:00 AM-. Technical proposals will be publicly opened on the same day April 01, 2019, at 11:30 AM--in the presence of bidder's representatives who wish to attend it. Bid Security of disqualified bidders will be returned after awarding the business to the successful bidder.

a. Bid Security

Bid Security of Rs. 5,000 (Five Thousand) in the form of pay order or demand draft favoring Punjab Skills Development Fund shall be submitted along with the proposal. The Bid Security should be valid for a period not less than 6 months and must be enclosed with the financial bid.

b. Cover Letter for the Submission of Technical Proposal

A cover letter as specified in Annex / shall be submitted with the proposal.

Annexes

Annex – A Organizational Information

| Organization Information | | | |
|--------------------------|---|----------------------------|--|
| Sr. # | Required Information | Response | |
| 1 | Legal name of the organization | | |
| 2 | Year of Registration / Establishment of the Organisation | | |
| 3 | National Tax Number | | |
| | General / Punjab Sales Tax Number | | |
| 5 | What is the legal status of your organization? Tick the relevant box (one box only). (Attach Copy/Copies of Registration Certificate/s) | Public Sector Organisation | |
| | | Section 42 Company | |
| | | Public Ltd. Company | |
| | | Private Ltd. Company | |
| | | Private Partnership Firm | |
| | Others (Please specify) | | |
| 6 | Name and designation of 'Head of Organization' | | |
| 7 | Mobile: | | |
| | Phone/s: | | |
| | Email: | | |
| | Fax: | | |
| | Address of organization: | | |
| | Website address: | | |
| 8 | Name and designation of 'Contact Person': | | |
| | Phone/s: | | |
| | Mobile: | | |
| | Email: | | |
| | Fax: | | |

Annex – B Eligibility Response Checklist

| Eligibility Check List | | | | |
|------------------------|---|-------------------------------------|---|--------------------------|
| Sr. No | Eligibility Criteria Details | Response/Elaboration/Proof Required | Attached Supporting Documents/Proof and mark Yes/No | |
| | | | Yes | No |
| 1 | The Firm/Company must be regular tax-payer | (Last year tax return, 17-18) | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Provide NTN, GST/PST details, if applicable. | (Copy of Registration is required) | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Evidence of the firm/company's registration/incorporation is required. | (Copy of certificate required) | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | Must not be blacklisted by any government / bi-lateral/multi-lateral financial institution/any organizations (Declaration on stamp paper) | (Declaration on stamp paper) | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | Bidding Vendor must be Tier 1 Partner of the Principle and complete solution should be provided by a single principle. | Letter by the principal is required | <input type="checkbox"/> | <input type="checkbox"/> |

Annex – C Relevant Experience

| Relevant Experience | | |
|---------------------|--|---|
| Sr. # | Required Information | Response (Please provide exact information with organization name, location/s, and duration) Provide data in the sequence given below |
| 1 | Name of Organizations with addresses | i. |
| | | ii. |
| | | iii. |
| | | iv. |
| 2 | Start and end dates of providing Goods/Services (For example – Jan 2009 to September 2017) | i. |
| | | ii. |
| | | iii. |
| | | iv. |
| 3 | Goods/Services provided to Number of firms/companies | i. |
| | | ii. |
| | | iii. |
| | | iv. |

Annex – D Technical Evaluation Criteria

| Technical Evaluation Criteria | | | | |
|---|---|---------------------|---------------------------|--|
| (Attachment of relevant evidence in each case is mandatory. In case of non-compliance no mark will be awarded) | | | | |
| S. No. | Descriptions | Total Points | Categorized Points | Remarks |
| 1 | Client Portfolio (Past DataCenter Projects) | 20 | | |
| | Worked with above 15 local/international/ Telecom/MNCs /government / semi government/autonomous bodies. | | 20 | Documentary proof (copies of the contract or Purchase/Service Order of clients) should be furnished. |
| | Worked with more than 10 but less than or equal to 15 locals/international/Telecom/MNCs / government/ semi government /autonomous bodies. | | 15 | |
| | Worked with 5 or more but less than or equal to 10 locals/international/Telecom/MNCs/ government/ semi government /autonomous bodies. | | 10 | |
| 2 | Relevant Experience | 20 | | |
| | Providing Datacenter Solution with Complete Installation & Commissioning for more than 5 years | | 20 | Documentary proof (copies of the contract or Purchase/Service Order) should be furnished. |
| | Providing Datacenter Solution with Complete Installation & Commissioning for more than 3 years but less than or equal to 5 years | | 10 | |
| 3 | Financial Capability | 20 | | |
| | Annual revenue/turnover of the company should be greater than Rs. 150 million | | 20 | Copy of last financial audit report done by ICAP/SBP registered auditing Firm/Company or tax return of last year |
| | If annual revenue/turnover is less than or equal to Rs. 150 million but greater than 100 million | | 15 | |
| | If annual revenue/turnover is less than or equal Rs.100 million but greater than 80 million | | 10 | |
| 4 | Workshop for Repair & Maintenance | 15 | | |
| | Details of the workshop including repair & maintenance in Lahore. | | 15 | Documentary details of the workshop including repair & maintenance service on company letterhead |
| | Details of the workshop including repair & maintenance anywhere in Pakistan. | | 5 | |
| 5 | Principle Presence in Pakistan | 10 | | |
| | Existence of Principle Presence in Pakistan | | 10 | Documentary details of the Principle Presence in Pakistan on company letterhead |
| | Nonexistence of Principle Presence in Pakistan | | 0 | |
| 6 | Certified Engineers in Relevant Area | 15 | | |
| | More than or equal to 3 Certified engineers | | 15 | Resumes and certificates of the certified engineers is to be provided |
| | 2 Certified engineers | | 10 | |
| | 1 Certified engineer | | 5 | |
| | | 100 | | |

Note: Please mark/flag the supporting documents for Technical Evaluation Criteria.

Specification and Quantity of Datacentre Solution with Complete Installation & Commissioning

| Section - I BOQ | | |
|--|---|---|
| A. BILL OF QUANTITY FOR 10KVA UPS | | |
| S# | DESCRIPTION | Qty. |
| 1 | 10KVA UPS Rack Tower convertible with Rail kits with power factor 1 for best power efficiency at output | 2 |
| 2 | NMC/SNMP/WEB Management Cards for connectivity and monitoring | 2 |
| 3 | External Battery Bank of the exactly same brand of UPS, Battery bank should be able to provide 60 mins backup for each UPS at 8KVA load | As per mentioned requirements |
| B. BILL OF QUANTITY FOR Complete Precision Cooling Solution | | |
| S# | DESCRIPTION | Qty. |
| 1 | Indoor cooling unit with minimum of 7KW and maximum of 13KW solution is acceptable, InRow, Air Cooled, 220-240V, 50Hz, Multi-function LCD status and control console, Air Discharge vertically & Air flow with scroll type compressor with international standards approvals and certifications | 1 |
| 2 | Outdoor unit Compressor, with R410A, with variable speed fans to reduce energy consumption during off-peak cooling periods, integral fan/motor assembly to be factory balanced, lowers vibration & Condenser, 2 Fan, Single circuit with required size Isolation valve assemblies with international standards approvals and certifications | 1 |
| C. BILL OF QUANTITY FOR Racks for UPS and Battery Banks | | |
| S# | DESCRIPTION | Qty. |
| 1 | 42U, Deep Enclosure with Sides Black Racks should be compliant with the international standards and certifications | (as per requirements) its design and dimensions must accommodate UPS and Battery Banks proposed above |
| D. BILL OF QUANTITY FOR Environmental Monitoring System | | |
| S# | DESCRIPTION | Qty. |
| 1 | Rack Monitor Device, Network-based rack monitor, Temperature, water leakage, and Humidity. | 1 |
| 2 | Temperature Sensor for racks, with a feature to Customize each sensor with a differentiating name and location | 2 |
| 3 | Water Leak Sensor with at least 20ft length including its Interface Cable | 1 |
| 4 | Temperature & Humidity Sensor for DC room | 1 |

| E. BILL OF QUANTITY FOR Rack ATS for UPS Switching | | |
|---|---|-------------|
| S# | DESCRIPTION | Qty. |
| 1 | Rack Automatic Transfer Switch, 20A/208V, 16A/230V, with Indications of the status of the AC sources powering the units, this should provide a visual depiction of the power flow from the input to the load with 1U Size or less | 1 |
| F. BILL OF QUANTITY FOR DataCenter UPS Input, Output & Power DBs | | |
| S# | DESCRIPTION | Qty. |
| 1 | Power DB | |
| | Incoming | |
| | 63A 2 Pole MCB (cooling unit incoming) Equivalent to ABB, Schneider or Legrand | 1 |
| | 80A 2 pole (UPS Incoming) Equivalent to ABB, Schneider or Legrand | 2 |
| | Indication Lamp LED (L1, L2, L3) Equivalent to Local Good quality | 3 |
| | Volt & Amp meter Digital (L1, L2, L3) Equivalent to Local Good quality | 1 |
| | Box type Open Equivalent to Local Good quality | 1 |
| 2 | UPS DB | |
| | Outgoing: UPS 1 | |
| | 50A 2 Pole MCB Equivalent to ABB, Schneider or Legrand | 1 |
| | 32A Single Pole MCB Equivalent to ABB, Schneider or Legrand | 4 |
| | Indication Lamp LED Equivalent to Local Good quality | 1 |
| | Outgoing: UPS 2 | |
| | 50A 2 Pole MCB Equivalent to ABB, Schneider or Legrand | 1 |
| | 32A Single Pole MCB Equivalent to ABB, Schneider or Legrand | 4 |
| | Indication Lamp LED Equivalent to Local Good quality | 1 |
| | Box type Open Equivalent to Local Good quality | 1 |
| | Outgoing: HVAC | |
| | 32A 2 Pole MCB Equivalent to ABB, Schneider or Legrand | 1 |
| 3 | Industrial Sockets for DC Room | |
| | Equivalent to Clipsal or Legrand | 4 |

Section - II Passive Work

The bidder will be responsible for the complete commission of above equipment with following passive work mentioned below.

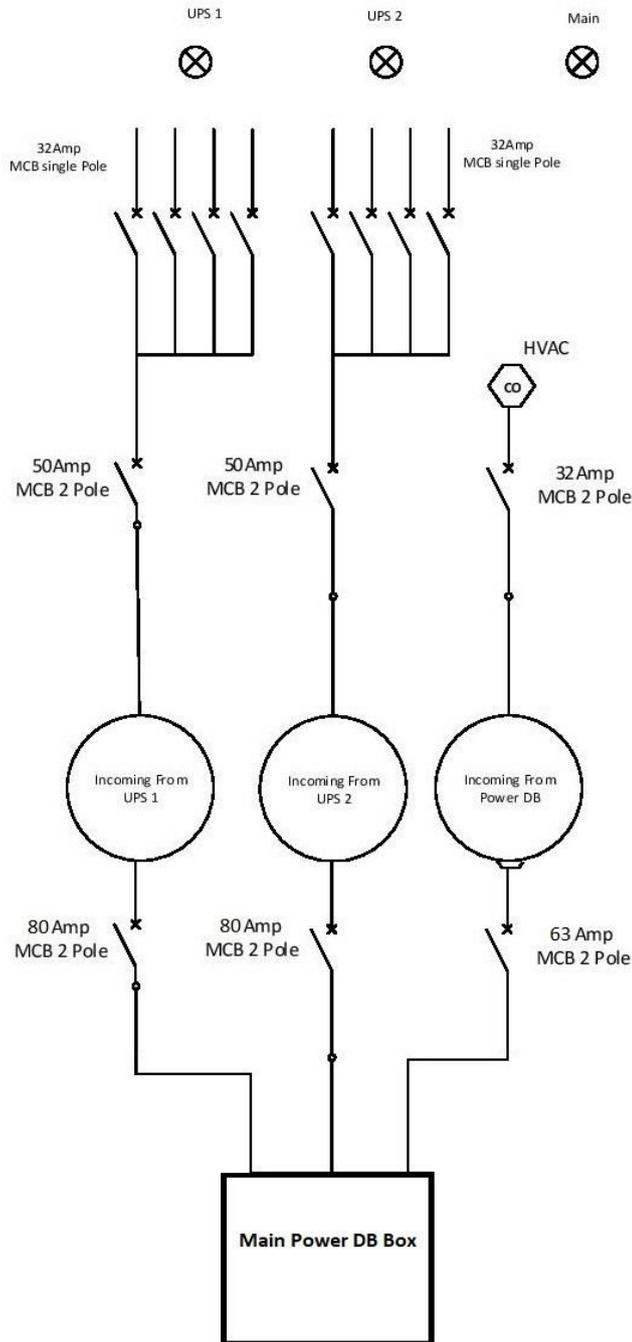
| S. No. | Description | Unit |
|--------|--|------|
| 1 | Rigging, Lifting, Shifting and Installation of the cooling unit (indoor/outdoor) at a designated place including civil works. | Job |
| 2 | Supply & installation of cable tray inside room Made out of 14 SWG High grade. (hanged from Ceiling with 5/8" rod etc). 150mm wide & 50 mm High Complete in all respect as per Specification | RFT |
| 3 | Supply & installation of cable tray outside room from the equipment room to top floor Made out of 14 SWG High grade. 150mm wide & 50 mm High Complete in all respect as per Specification | RFT |
| 4 | Scaffolding for Copper pipe laying | Job |
| 5 | Supply & Installation of copper pipe (make Moeller USA or Better) Hard Type size-5/8" diameter with insulation, where necessary, trunking and supports complete in all respect | RFT |
| 6 | Supply & Installation of copper pipe (make Moeller USA or Better) Hard Type size 1/2" diameter with insulation, where necessary, trunking and supports complete in all respect | RFT |
| 7 | Supply & Installation of UPVC pipe for condensate drain size 1" diameter with insulation where necessary, trunking and supports complete in all respect | RFT |
| 8 | Supply & Installation of PPRC pipe for humidifier size 1" diameter with trunking and supports complete in all respect | RFT |
| 9 | Supply & Installation of Refrigerant gas R410A with circuits pressure testing, Vacuum, and charging. | RFT |
| 10 | Supply & Installation of electrical power cable 4 core size 6mm ² between indoor to electrical panel with conduiting, laying & termination | RFT |
| 11 | Supply & Installation of electrical control cable 3 core flexible 2.5mm ² between indoor to outdoor unit with conduiting, laying & termination | RFT |
| 12 | Supply & Installation of electrical grounding cable single core 6mm ² with conduiting, laying & termination | RFT |
| 13 | Testing, Configuration, Commissioning & Test Run of the entire infrastructure | Job |
| 14 | Supply Installation and commissioning of Environment Monitoring Solution | Job |
| 15 | Laying of power cable 25mm ² 5 Core Flexible Cable as per requirement (UPS incoming) | Rft |
| 16 | Laying of power cable 16mm ² 3 Core Flexible Cable as per requirement (UPS outgoing) | Rft |
| 17 | Installation of Industrial Socket as mentioned above | Job |

| | | |
|----|--|------|
| 18 | Power DB (For Input and Out of UPS and Cooling Units) for Above mentioned Electrical Equipment (According to SLD below) | Rft |
| 19 | Supply and Fixing of Anti-static tiles for DC Room | Rft |
| 20 | Removal of existing false ceiling in DC Room and installation of overhead cable trays and its laying. | Rft |
| 21 | Conduiting and Cables Ties of Power Cables | No's |
| 22 | Consultation, Design, Installation, Painting, Structural fixings, Commissioning, Configuration, Cabling Management, Tagging to the setup Datacenter with all miscellaneous material & labour etc | Job |
| 23 | A complete dismantling of any existing item/material including but not limited to cables/UPS/AC/Piping/False Ceiling/Paint/Door/Glass or anything within the premises etc. | Job |
| 24 | Installation of the Refrigerant liquid line Piping copper with fitting, elbow, reducer, Tee, aero flex insulation and PVC taping | Job |

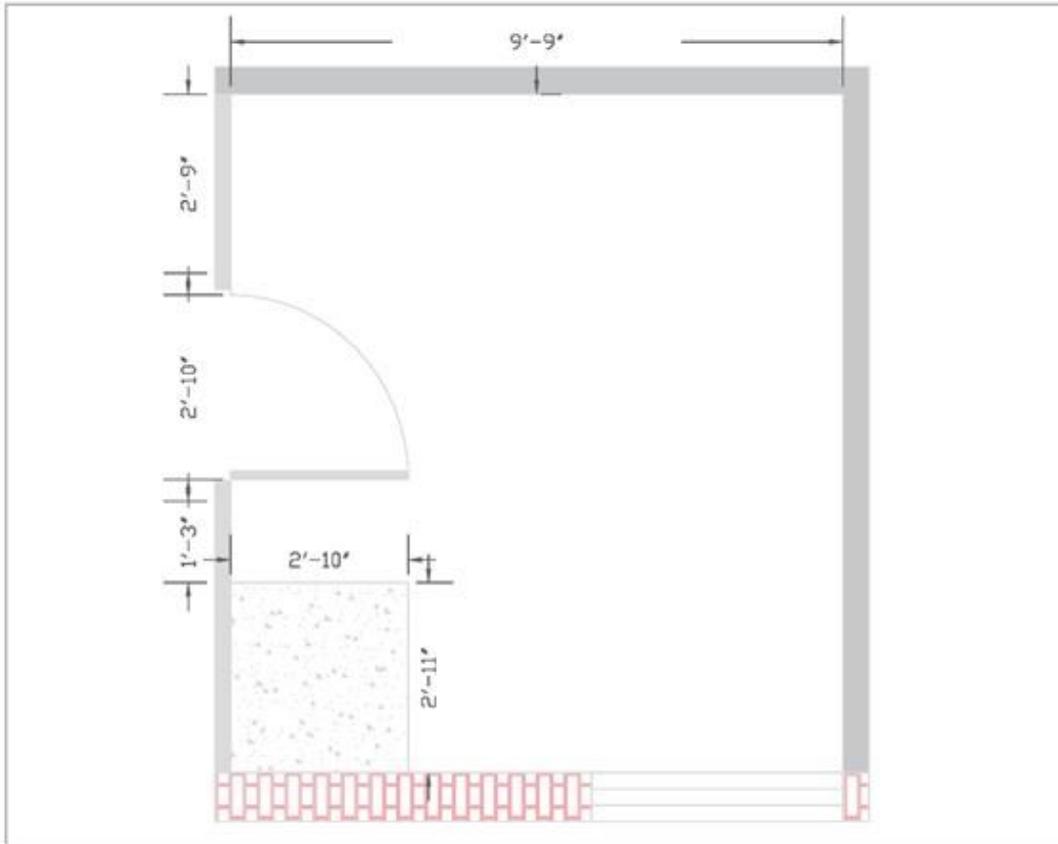
Important Note:

In case of any existing infrastructure is damaged appropriate replacement to be made by the Vendor.

DataCenter UPS Input/Output & Power DBs Layout



Proposed Datacenter Layout:



Important Note

A) Installation of all Equipment including Passive Work

- A. Complete Installation, equipment movements and placements, and configurations of BOQ mentioned in Annex-E with complete passive work (including of every part or material that is required) shall be made by bidder no extra payment will be paid to the bidder.
- B. In case of any existing infrastructure is damaged appropriate replacement to be made by the vendor.
- C. After Completion of Complete project bidder should submit complete Electrical Layout Diagram with tagging.

Form of Bid/ Financial Proposal

| Bill of Quantity | | | | | |
|------------------|---|---|---|----------------------|---------------------------------------|
| Sr. No. | Description | Quantity | Unit Price without Applicable Taxes PKR | Applicable Taxes PKR | Total Price with Applicable Taxes PKR |
| 1 | 10KVA UPS Rack Tower convertible with Rail kits with power factor 1 for best power efficiency at output mentioned in Annex E | 2 | | | |
| 2 | NMC/SNMP/WEB Management Cards for connectivity mentioned in Annex E | 2 | | | |
| 3 | External Battery Bank of the exactly same brand of UPS, Battery bank should be able to provide 60 mins backup for each UPS at 8KVA load mentioned in Annex E | As per mentioned requirements | | | |
| 4 | Indoor cooling unit with minimum of 7KW and maximum of 13KW solution is acceptable, InRow, Air Cooled, 220-240V, 50Hz, Multi-function LCD status and control console, Air Discharge vertically & Air flow with scroll type compressor with international standards approvals and certifications mentioned in Annex E | 1 | | | |
| 5 | Outdoor unit Compressor, with R410A, with variable speed fans to reduce energy consumption during off-peak cooling periods, integral fan/motor assembly to be factory balanced, lowers vibration & Condenser, 2 Fan, Single circuit with required size Isolation valve assemblies with international standards approvals and certifications mentioned in Annex E | 1 | | | |
| 6 | 42U, Deep Enclosure with Sides Black Racks should be compliant with the international standards and certifications | (as per requirements) its design and dimensions | | | |

| | | | | | |
|----|---|---|--|--|--|
| | | must accommodate UPS and Battery Banks proposed above | | | |
| 7 | Rack Monitor Device, Network-based rack monitor, Temperature, water leakage, and Humidity mentioned in Annex E | 1 | | | |
| 8 | Temperature Sensor for racks, with a feature to Customize each sensor with a differentiating name and location mentioned in Annex E | 2 | | | |
| 9 | Water Leak Sensor with at least 20ft length including its Interface Cable mentioned in Annex E | 1 | | | |
| 10 | Temperature & Humidity Sensor for DC room mentioned in Annex E | 1 | | | |
| 11 | Rack Automatic Transfer Switch, 20A/208V, 16A/230V, with Indications of the status of the AC sources powering the units, this should provide a visual depiction of the power flow from the input to the load with 1U Size or less mentioned in Annex E | 1 | | | |
| 12 | Power DB mentioned in Annex E | | | | |
| | 63A 2 Pole MCB (cooling unit incoming) Equivalent to ABB, Schneider or Legrand | 1 | | | |
| | 80A 2 pole (UPS Incoming) Equivalent to ABB, Schneider or Legrand | 2 | | | |
| | Indication Lamp LED (L1, L2, L3) Equivalent to Local Good quality | 3 | | | |
| | Volt & Amp meter Digital (L1, L2, L3) Equivalent to Local Good quality | 1 | | | |
| | Box type Open Equivalent to Local Good quality | 1 | | | |
| 13 | UPS DB mentioned in Annex E | | | | |
| | Outgoing: UPS 1 | | | | |

| | | | | | |
|----|--|---|--|--|--|
| | 50A 2 Pole MCB Equivalent to ABB, Schneider or Legrand | 1 | | | |
| | 32A Single Pole MCB Equivalent to ABB, Schneider or Legrand | 4 | | | |
| | Indication Lamp LED Equivalent to Local Good quality | 1 | | | |
| | Outgoing: UPS 2 | | | | |
| | 50A 2 Pole MCB Equivalent to ABB, Schneider or Legrand | 1 | | | |
| | 32A Single Pole MCB Equivalent to ABB, Schneider or Legrand | 4 | | | |
| | Indication Lamp LED Equivalent to Local Good quality | 1 | | | |
| | Box type Open Equivalent to Local Good quality | 1 | | | |
| | Outgoing: HVAC | | | | |
| | 32A 2 Pole MCB Equivalent to ABB, Schneider or Legrand | 1 | | | |
| 14 | Industrial Sockets for DC Room mentioned in Annex E | | | | |
| | Equivalent to Clipsal or Legrand | 4 | | | |
| | Total Cumulative Cost inclusive of all applicable Taxes (PKR) | | | | |

| Section - II - Passive Work | | | | | |
|-----------------------------|--|------|--|-------------------------|--|
| Sr. No. | Description | Unit | Unit Price without Applicable Taxes PKR | Applicable Taxes PKR | Total Price with Applicable Taxes PKR |
| 1 | Rigging, Lifting, Shifting and Installation of the cooling unit (indoor/outdoor) at a designated place. including civil works. | Job | | | |
| 2 | Supply & installation of cable tray inside room Made out of 14 SWG High grade. (hanged from Ceiling with 5/8" rod etc). 150mm wide & 50 mm High Complete in all respect as per Specification | RFT | | | |
| 3 | Supply & installation of cable tray outside room from the equipment room to top floor Made out of 14 SWG High grade. 150mm wide & 50 mm High Complete in all respect as per Specification | RFT | | | |

| | | | | | |
|----|---|-----|--|--|--|
| 4 | Scaffolding for Copper pipe laying | Job | | | |
| 5 | Supply & Installation of copper pipe (make Moeller USA or Better) Hard Type size- 5/8" diameter with insulation, where necessary, trunking and supports complete in all respect | RFT | | | |
| 6 | Supply & Installation of copper pipe (make Moeller USA or Better) Hard Type size 1/2" diameter with insulation, where necessary, trunking and supports complete in all respect | RFT | | | |
| 7 | Supply & Installation of UPVC pipe for condensate drain size 1" diameter with insulation where necessary, trunking and supports complete in all respect | RFT | | | |
| 8 | Supply & Installation of PPRC pipe for humidifier size 1" diameter with trunking and supports complete in all respect | RFT | | | |
| 9 | Supply & Installation of Refrigerant gas R410A with circuits pressure testing, Vacuum and charging. | RFT | | | |
| 10 | Supply & Installation of electrical power cable 4 core size 6mm ² between indoor to electrical panel with conduiting, laying & termination | RFT | | | |
| 11 | Supply & Installation of electrical control cable 3 core flexible 2.5mm ² between indoor to outdoor unit with conduiting, laying & termination | RFT | | | |
| 12 | Supply & Installation of electrical grounding cable single core 6mm ² with conduiting, laying & termination | RFT | | | |
| 13 | Testing, Configuration, Commissioning & Test Run of the entire infrastructure | Job | | | |
| 14 | Supply Installation and commissioning of Environment Monitoring Solution | Job | | | |
| 15 | Laying of power cable 25mm ² 5 Core Flexible Cable as per requirement (UPS incoming) | Rft | | | |
| 16 | Laying of power cable 16mm ² 3 Core Flexible Cable as per requirement (UPS outgoing) | Rft | | | |
| 17 | Industrial Socket as mentioned above | Job | | | |
| 18 | Power DB (For Input and Out of UPS and Cooling Units) for Above mentioned Electrical Equipment (According to SLD below) | Rft | | | |
| 19 | Supply and Fixing of Anti-static tiles for DC Room | Rft | | | |

| | | | | | |
|--|--|------|--|--|--|
| 20 | Removal of existing false ceiling in DC Room and installation of overhead cable trays and its laying. | Rft | | | |
| 21 | Conduiting and Cables Ties of Power Cables | No's | | | |
| 22 | Consultation, Design, Installation, Painting, Structural fixings, Commissioning, Configuration, Cabling Management, Tagging to setup DataCenter with all miscellaneous material & labour etc | Job | | | |
| 23 | A complete dismantling of any existing item/material including but not limited to cables/UPS/AC/Piping/False Ceiling/Paint/Door/Glass etc. | Job | | | |
| 24 | Installation of the Refrigerant liquid line Piping copper with fitting, elbow, reducer, Tee, aero flex insulation and PVC taping | Job | | | |
| Total Cumulative Cost inclusive of all applicable Taxes (PKR) | | | | | |

Annex- G Declaration

Declaration

Kindly provide the declaration as per format provided below at the end of the proposal.

I, _____ hereby declare that:

- all the information provided in the technical proposal is correct in all manners and respects
- and I am duly authorised by the Governing body/Board/Management to submit this proposal on behalf of "[Click here and type the name of organization]"

| | |
|-----------------------|--|
| Name | |
| Designation | |
| Signature | |
| Date and Place | |

Cover Letter for the Submission of Technical Proposal

[Firm/Company letterhead]

[Date]

To

Chief Executive Officer

[Address mentioned in Guide lines]

Re: Technical Proposal in respect of [Insert title of assignment]

Dear Sir,

We offer to provide the Goods for [Provision of the Datacenter Solution with Complete Installation & Commissioning] in accordance with your Tender for Proposal dated [Insert Date of Tender advertised]. We hereby submit our technical Proposal including the required documents in a sealed envelope.

We assure that the solution provided does not contain any end of life or end of support item and completely complies with all the requirements mentioned in the SOW and Annex E. Our proposal may be rejected at any stage in case any item proposed is found to be falling under end of life or end of support by the principal on or before the date the submission of bid. In case any anomaly is found we can be disqualified in any stage of the evaluation.

Further, we hereby also declare that all the information and statements made in these proposals are true and accept that any misinterpretation contained therein may lead to our disqualification. Our proposal is binding upon us and subject to the modifications resulting from contract negotiations. We undertake that we will initiate the services as per the client's request if our proposal is accepted. We understand that you are not bound to accept any or all proposals you receive.

Thank you.

Yours sincerely,

Signature

Name and title of signatory: