

Reply to Bidders queries against RFP No. PITC/G-224(118)04-2025
DEVELOPMENT AND MAINTENANCE OF METER DATA MANAGEMENT (MDM) SOFTWARE

M/s ACCURATE (PVT) LIMITED QUERIES

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|-----|------------------------------------|--|--|---|
| 1 | 3.4.1.1 (MDM Technical Features) | Will be scalable to cover multiple meter vendors MDCs | Please specify the minimum number of units (meters) is required to integrate with MDM system. | This is a software development project utilizing a microservices architecture, designed to support unlimited meter scalability with automated horizontal scaling capabilities |
| 2 | 3.4.1.2 (MDM Operational Features) | Shall be scalable, and the provider must be able to describe the methods that support scalability and associated costs | It is requested to first specify the minimum number of units (meters) is required to integrate with MDM system. And accordingly how much percentage of scalability is required? | Same as Sr. 1 |
| 3 | 3.4.1.4 (MDM Interoperability) | Should provide a customizable file layout structure to interface with the PITC's Billing Systems for integrating meter reading data and customer information. MDM Application must be able to export data to Microsoft Excel, Adobe PDF, Common Separated Value (CSV) and Text file formats. | Please share any specific requirement for integrating IBS with MDM | Integration services structure will be shared with tender winning party |
| 4 | 4.3.1 (Bidder Eligibility) | Have registered/incorporated company/firm in Pakistan with relevant software development business experience of at least two (2) years on closing date of advertisement. | In case of JV among local partner with Foreign partner, international experience should suffice the requirement. | Experience in deploying custom-developed similar project, particularly those involving soft-coded delivery mechanisms, may be considered. |
| 5 | 4.3.1 (Bidder Eligibility) | Bidder must have at-least one successful related software development and implementation in its credit (completion certificate issued by client is required as a documentary proof) in public private sector organizations of similar size within Pakistan. | <p>1. Please specify the size.</p> <p>2. Since MDM is based on the international standard IEC 61968, and only one such project has been advertised in Pakistan to date, the requirement for local experience effectively eliminates competition, as most bidders are unable to demonstrate such experience within Pakistan. It is therefore requested that the condition should be revised to accept relevant international experience in addition to local experience.</p> <p>3. If the foreign Principle of the local bidder (Without JV) has the relevant international experience, would it be sufficient for local bidder to qualify the tender requirement related to experience?</p> | <p>1. As per Tender</p> <p>2. As per Tender</p> <p>3. No</p> |

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|-----|--|--|--|---|
| 6 | 4.6 | Joint venture / consortium is eligible for this tender | Please clarify if there is any specific requirement? | As per tender |
| 7 | 5.3 | Project Schedule | Please clarify is it 3 month for the completion of whole project or (3+3+3) 9 months? | 09 months |
| 8 | 6.2.9 References | Include references of similar scope and size customers in Pakistan. This reference list shall include the following information: <ul style="list-style-type: none"> Organization Name Customer Contact – name, title and contact information Address Date of work performed Brief description of work performed | We respectfully request that international references of similar scope and size would also be accepted to fulfill this requirement. We believe that the international experience will clearly demonstrates the capability and commitment of the firm to successfully delivering projects of this nature in Pakistan as well. | As per tender |
| 9 | 7.3.2 Qualification and Implementation Experience | Past experience and performance on comparable projects, references, experience and capabilities of Bidder; | MDM solutions are typically advanced, complex, and involve high data volumes. Currently, there is only one known MDM deployment in Pakistan, and it operates at a limited scale. It is therefore recommended that the qualification criteria should include 01 successfully implemented MDM deployment out of Pakistan. | Experience in deploying custom-developed similar project, particularly those involving soft-coded delivery mechanisms, may be considered. |
| 10 | 7.3.2 Qualification and Implementation Experience | Past experience and performance on comparable projects, references, experience and capabilities of Bidder; | We have an international reference case of an EPC project involving supply and installation of smart meters, HES, MDM and FDM (Field Data Management APP with customer information). Would the experience of MDM deployment in an EPC project be considered? | Experience in deploying custom-developed similar project, particularly those involving soft-coded delivery mechanisms, may be considered. |
| 11 | Bid Form: 6 Financial Schedule | Bidders are requested to provide the cost estimates for its proposed application & database licenses in line with their recommended hardware sizing for this project given in the respective technical proposals, | 1. The number of licenses/metering points need to be clarified for financial proposal 2. The required capacity of IT infrastructure needs to be clarified for the IT hardware sizing 3. Shall PITC be arranging the IT infrastructure? | 1. No Licensing Limit 2. PITC will be arranging IT Infrastructure 3. Yes |
| 12 | Bid Form: 6 Financial Schedule | 1: Software Price Schedule | 1. There is no price table given for the MDM Licenses per metering point. Kindly clarify where the bidder needs to quote the MDM license price. What is the quantity of Licenses required to quote? 2. As per table, it says 3rd Party Licenses One time cost, whereas in the Notes, it is mentioned that 3rd party license shall be valid for one year. Please clarify this contradiction. 3. Please elaborate the clause: "Principal solution support/license renewal cost of implementation period (if proposed implementation project plan exceeds one year)" 4. Please elaborate the clause: "Principal solution support renewal cost of warranty period." | 1. No Licensing Limit 2. As per tender 3. As per tender 4. Support & Maintenance |

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|--------------------------------|---|--|--|---|
| 13 | Bid Form: 6 Financial Schedule | Price for each Application/Module should be provided separately | Does the module refer to customer, transformer and grid? The Financial schedule doesn't mention separate space for quoting each module | As per tender |
| 14 | 3.5.3. GMI (Grid Metering Integration) Module | 3.5.3. GMI (Grid Metering Integration) Module The GMI will deal with the grid level AMR meters installed as incoming and outgoing meters. The primary objective of these AMR meters is real time load monitoring so that NPCC (national power control center) may take decisions on increasing or decreasing the demand in the national grid. | Please clarify whether these Grid Meters include all the meters installed on 500kV, 220kV, 132kV and 11kV Grid Station? The MDM should support the all-domain line loss analysis? Or, should it support the line loss analysis from the Substation to the Meters? | Yes |
| 15 | Database | | 1. Please describe the archiving procedure and duration with data type. 2. Does this new MDM should have APMS features? Or new MDM needs to be integrated with existing AMPS? | 1. Monthly Archiving Automatic 2. Yes |
| 16 | 3.4.1.1. Smart Meter Data Management (MDM) Technical Features | 1 minute data retrieval of Grid Profiles or an interval defined by the end user. | 1. What's the meaning of: 1-minute data retrieval of Grid Profiles? Does it mean that the interval between the instantaneous value tasks of the CTPT electricity meter is 1 minute? Or is it the data collected from on-demand reading within one minute? 2. Is the switching status of this circuit breaker obtained from the electricity meter or directly from the circuit breaker? 3. Does the TMS breaker controlled by CTPT meter? Or is there a battery on the circuit breaker? | 1. Yes 2. Smart Energy Meter 3. Controlled by Meter |
| 17 | 3.5.1. TMI (Transformer Metering Integration) Module | The all-in-one TMI solution will combine smart energy metering unit with two-way communication to capture real time data with remote disconnect and re-connect capabilities. Typical TMS system will monitor (power quality as signals harmonics/frequency, circuit breaker operations, assets monitoring for overloading/heating, oil temperature monitoring, energy metering etc. | 1. Is the system disconnection and reconnection achieved by controlling the meter? Or the SMCD control the circuit breaker to achieve this function? 2. Which device should collect the Oil Temperature? Through SMCD or others? | 1. As per UDIL Services 2. Details will be shared with tender winning party |
| M/s Resource Consulting | | | | |
| 1 | Please advise whether it is necessary for both partners in JV to individually purchase the tender document, or if a single purchase by either partner will suffice. | | | Single Purchase will be sufficient |
| 2 | Additionally, we request clarification on the experience requirement: is it acceptable if only one of the JV partners possesses the minimum two years of relevant experience, or is it mandatory for both partners to meet this requirement individually? | | | Experience in deploying custom-developed similar project, particularly those involving soft-coded delivery mechanisms, may be considered. |

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|---|---------------------------|---|---|---|
| Ningbo Sanxing Smart Electric Co., Ltd | | | | |
| 1 | Page 36 | Bid's Technical Elevation Part A-Registration/incorporation/Business Certificate and two years of relevent business years in Pakistan. | If we are JV bid with local company. Do both JV parties need comply or any one comply will be accept? | Both Should Comply |
| 2 | Page 36 | Bid's Technical Elevation Bidder must have at-least one succesful related software development and implementation.... within Pakistan | Does International reference accept? | As per RFP |
| 3 | Page 43 | Notes: Bid Money must be calculated based on estimated quantities as mentioned in financial schuedule(Bid Form 6) | Bid Form 6 did't mention the estimated Qty, please advise | Same as Sr. 1 |
| 4 | Page 43 | The Software Price Schdule It mentioned 3rd Party License One time cost Notes: Assumption: Initially third party license, if applicable, are valid for one year | The Software Price Schdule mentioned that the bidder need to offer License's one time cost. And the Noted mentioned license valid for one year. Is that means the bidder only need to think about one year license cost during the implement stage? | Yes |
| 5 | Page 43 | The Software Price Schdule Annual Support for Subsequent Each year-3 Party License renewal | This part are not included in the bid price, different Qty Lincense have did't cost, Please advise if it's a certain Qty? If yes, please advise the specific number, thanks. | As per RFP |
| KBK Electronics PVT Ltd | | | | |
| 1 | 1.1. Invitation to RFP | PITC is seeking proposals from the prospective qualified bidders, having experience in similar software design, development, deployment and implementation, in PHP, JAVA, Net, Python or other appropriate front/backend technologies for smart meters integration with PITC's Billing, GIS system, ERP, CCMS, outage management system, and energy control and losses systems. | Kindly provide detailed information on the communication interfaces, APIs, and integration protocols currently in use for these systems including Billing System, GIS System, ERP, CCMS, Outage Management System, Energy Control and Losses Management Systems. This information is mandatory for assessing compatibility and designing an effective integration approach for the proposed solution. | Restful, SoAP and File uploading are the target communication interfaces. However detailed specifications of these interface will be shared with the successful bidder after signing the NDA |
| 2 | 2.1. Statement of Purpose | The MDM software is required to retrieve data from multiple Headend(s)/MDCs/Interfaces/Drivers, process command as well expose the master and transaction data to business warehouse for reporting and data analytics. | Kindly provide details regarding the Business Warehouse (BW) system currently utilized for reporting and data analytics. Specifically, please include the following information: • The platform or technology used (e.g., SAP BW, custom DW, etc.) | Please see the responses below. Its PITC Custom Busniess Warehouse (BW), and integration over enterprise databus. However detailed specifications of these interface will be shared with the successful bidder after signing the NDA |

| Sr. | Reference | Tender Document Statement | API Query | PITC Reply |
|-----|-----------------------------|--|--|--|
| | | | <ul style="list-style-type: none"> Available integration interfaces or APIs for data ingestion and retrieval Supported data formats and protocols for interfacing with external systems. | Restful, SoAP and File uploading |
| 3 | 2.1. Statement of Purpose | PITC is interested in exploring whether solution could provide value added functionality such as revenue protection, advanced customer data presentation via a portal, outage management etc. | Please provide detailed descriptions of the value-added functionalities that PITC is interested including Revenue protection features, Advanced customer data presentation through a portal and outage management capabilities. Additionally, please share any existing examples or use cases demonstrating how these functionalities have been implemented in similar solutions. | Detailed specifications of these functionalities will be shared with the successful bidder after signing the NDA |
| 4 | 3.3. General Overview | All modules of Smart Meters Data Management (MDM) solution should be fully configurable and adaptable to the needs of end users. Moreover, all functionalities within Smart Meters Data management (MDM) solution may be performed either manually or automatically, thus minimizing the need for user intervention. | Please provide a detailed list of the tasks or jobs within the MDM solution that are intended to be performed automatically. For each task, kindly describe the associated workflow and any relevant triggers or conditions that initiate the automated processes. | Please refer to the latest UDIL on PITC website and Commercial procedures of Disco's |
| 5 | 3.4. Functional Overview | The system will be able to export data to any external system through web services, open API's, Formatted Text Files. | Kindly provide detailed information about the external systems with which the MDM solution is expected to exchange data. Please include: <ul style="list-style-type: none"> The names and types of these systems The APIs, web services, or data formats currently used for integration (e.g., REST, SOAP, JSON, XML, CSV) Any specific data exchange protocols or security requirements that need to be supported. | Restful, SoAP and File uploading with all popular formats as (e.g., REST, SOAP, JSON, XML, CSV) over enterprise data bus and encryption support is essentially required. However detailed specifications will be shared with the successful bidder after signing the NDA |
| 6 | | Validation / Estimation /Edition | Please list the requirements under each head which are to be developed as of today for evaluation of system deliverables. | Details of VEE operations will be shared with the successful bidder after signing the NDA |
| 7 | 3.4.1.1. Technical Features | The Smart Meters Data Management (MDM) Solution: | <ul style="list-style-type: none"> Please confirm the maximum number of metering units and MDC databases that the MDM solution should be designed to support successful integration and scalability. | This is a software development project utilizing a microservices architecture, designed to support unlimited meter scalability with automated horizontal scaling capabilities |
| | | <ul style="list-style-type: none"> Will be scalable to cover multiple meter vendors MDCs | <ul style="list-style-type: none"> Please confirm that DR site will be an exact replica of primary site in terms of IT hardware. | the DR site will be Active sync and hot fail back |
| | | <ul style="list-style-type: none"> Will include gateway to support multiple MDC databases | <ul style="list-style-type: none"> Please explain the requirement of virtualization. Also please confirm that 3rd party software required for VMs will be provided by PITC. | The virtualized platform will be provided by PITC |
| | | <ul style="list-style-type: none"> Will include fail-over/disaster recovery instance | | |

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|-----|--|--|---|---|
| | | <ul style="list-style-type: none">Will support virtualization | | |
| 8 | 3.4.1.2 Operational Features | The Smart Meters Data Management (MDM) Solution: | <ul style="list-style-type: none">Please confirm the maximum number of metering units that the MDM solution should support, along with the expected scalability scope or percentage growth. This will assist in estimating the associated costs for scaling. | This is a software development project utilizing a microservices architecture, designed to support unlimited meter scalability with automated horizontal scaling capabilities |
| | | <ul style="list-style-type: none">Shall be scalable, and the provider must be able to describe the methods that support scalability and associated costs. | <ul style="list-style-type: none">Considering GIS integration with third-party mapping services (e.g., Google Maps) often requires periodic license renewal, please specify the expected duration for which these services will be needed from the bidder. | PITC will provide API key's as and when required for GIS |
| | | <ul style="list-style-type: none">Must import and support GPS type data to identify and display locations of accounts geographically. | <ul style="list-style-type: none">Please confirm the maximum number of metering units and MDM users that the solution is expected to support. | This is a software development project utilizing a microservices architecture, designed to support unlimited meter scalability with automated horizontal scaling capabilities |
| | | <ul style="list-style-type: none">Must support creation of multiple client instances and be independent of number of users/meters. | <ul style="list-style-type: none">Kindly provide a detailed explanation of the energy consolidation and accounting features expected from the MDM solution, including any specific requirements or use cases. | As Per RFP |
| | | <ul style="list-style-type: none">Shall provide energy consolidation and accounting features. | | |
| 9 | 3.4.1.4. Interoperability Features | The Smart Meters Data Management (MDM) application: | Kindly provide detailed specifications of the customizable file layout structure required for interfacing with PITC's Billing Systems. This should include the format, data fiends, and any validation rules necessary for integrating meter reading data and customer information. | Details will be shared with the successful bidder after signing the NDA |
| 10 | | The Smart Meters Data Management (MDM) application: | Please confirm whether PITC will provide the necessary SMS Gateway service for text message alerts and the SMTP service for bulk email notifications required by the MDM solution. | Yes |
| | | <ul style="list-style-type: none">Must have the ability to alert appropriate personnel of certain triggered alarms arising from meter. | | |
| | | <ul style="list-style-type: none">Must have email notification of alerts. | | |
| 11 | | <ul style="list-style-type: none">Must have text message notification of alerts. | | |
| | The Smart Meters Data Management (MDM) application: | <ul style="list-style-type: none">Please provide detailed information about the existing AMR databases, including their formats and structures, to facilitate seamless data transfer to the new MDM system. | As per UDIL and Rfp | |
| | | <ul style="list-style-type: none">Provided shall transfer the existing AMR databases seamlessly to the Meter Data Management (MDM) data base ensure utility operation without any disruption. | <ul style="list-style-type: none">As PITC currently operates and MDM system, please confirm whether the database from the existing MDM also needs to be migrated to the new MDM solution. | Yes also from MDC/HES |
| 12 | 3.5.1.1. TMI Functional and Operational Features | A Super capacitor for Real-Time Clock RTC is used to maintain date & time and keeps the modem energized even after power outage in order to report the outage event to headend which is then passed on to the Power-TMI. The backup duration is enough | DDS-76 or UDIL 3.2 don't have this feature Please delete this requirement. | As per Rfp, The feature can be included in the coming UDIL revisions. |
| 13 | | Local Automatic Switch ON | SMCD supports local and remote Switch ON/OFF only as per DDS and UDIL. Please delete this requirement. | Agreed |
| | Local Automatic Switch OFF | | | |

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|-----|---|--|--|---|
| 14 | 3.5.2.1 CMI Functional and Operational Features | Shall support remote programmable load limit for individual tariff. It could for individual or a batch of meters. | This requirement contradicts with UDIL. Please delete this clause. | This Feature is required in MDM only, UDIL can be updated Later |
| 15 | 3.5.3.1.GMI Functional and Operational Features | <ul style="list-style-type: none"> Shall program two different load thresholds against different time slots (peak/off peak) to activate disconnection/reconnection automatically by the meter and time between disconnection and reconnection shall also be programmable Shall offer provision to DISCOs user to enable and disable the feature (Remote disconnect/reconnect for both scenarios) locally by meter software and remotely through head end system. | LT/HT CT/CTPT operated energy meters do not have such functionality. Please delete this requirement. | As Sr # 14 Specifications and UDIL can be updated later |
| 16 | 3.6.1. Smart-BI Dashboards | In Smart Meters Data Management (MDM), management of various levels will use the dashboards. The following Power-SMI dashboards are required at minimum; however, final dashboards will be finalized with the input of the end users: | Please provide an estimated number of final dashboards expected to be developed for the MDM system. This information will assist us in accurately estimating the costs associated with this requirement. | at least 25 Dashboards and Details will be shared with the successful bidder after signing the NDA |
| 17 | 3.6.2. Smart-BI Reports | <p>The Smart Meters Data Management (MDM) must provide the following minimum reports; however, actual reports will be finalized by the end user:</p> <ul style="list-style-type: none"> Other Reports as identified during the System Integration & Configuration process. | Please provide an estimated number of additional reports expected to be developed during the system integration and configuration process. This estimate will help us accurately assess the cost implications for these reporting requirements. | at least 50 and Details will be shared with the successful bidder after signing the NDA |
| 18 | 4. General and Special Conditions | PITC reserves the right to contract with a Bidder for reasons other than price | This clause contradicts with evaluation criteria. Please clarify. | As per RFP |
| 19 | 4.15.2. Inspection | Inspection/Acceptance certificate shall be issued by Project Director or his authorized representative after the completion of each phase of project as per agreed upon project plan. | What is the proposed plan? Please confirm. | As per RFP |
| 20 | 4.15.7 | To recover from bidder liquidated damages levied at the rate of two percent (2%) per month or a fraction thereof, subject to a maximum of ten percent (10%) of the contract price. | Please amend to read as: "To recover from bidder liquidated damages levied at the rate of two percent (2%) per month or a fraction thereof, subject to a maximum of ten percent (10%) of the undelivered goods". | As Per RFP |
| 21 | 5.2. Development and Source Code Delivery | The vendor shall provide PITC complete source code (w/o code obfuscation or hardware/network constraints) on duplicate media whereas all testing and staging environment will be at PITC premises. | Releasing the full source code of a proprietary product is strictly against established industry norms. The solution is the intellectual property of the bidder, and any requirement to share its source code is unacceptable, as it poses serious risks to system integrity, security, and intellectual property rights. It is therefore requested to delete this requirement from entire bidding document. | This is a software development project utilizing a microservices architecture, designed to support unlimited meter scalability with automated horizontal scaling capabilities |
| 22 | 7.3.1 Bidder's Evaluation | A warranty certificate describing the guaranteed response time after a hardware failure when the complaint is logged within the warranty period. | As hardware is to be supplied by PITC, please amend accordingly. | Agreed |

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|-----|---------------------------------------|--|---|--|
| 23 | 7.3.2. Bid's Technical Evaluation | Bidder: B Type of Company Public Limited = 10 marks Pvt. Limited = 5 marks Partnership = 3 marks Proprietary = 2 marks | Pvt. Limited also should have the same marks as a Public Limited Company, Please amend it. | As Per RFP |
| 24 | | Provided certificate of availability and CVs in prescribed format. | | |
| 25 | ANNEXURE-A | We certify that prices quoted to PITC against tender Lot annex-B and Items are not more than the prices charged from any other Purchasing Agencies in the country and in case of any discrepancy, the bidder hereby undertakes to refund the prices charged in excess. | This clause does not align with standard business practices, as pricing structures vary based on several legitimate factors, including the nature and scale of the project, prevailing economic conditions, scope of work, technical requirements, resource allocation, and client-specific needs. Comparing prices across different projects without considering these variable is commercially unviable and unjustifiable. Therefore, this clause should be removed to reflect practical and market-aligned procurement principles. | As Per RFP |
| 26 | Bid-Form | We understand that you are not bound to accept the lowest or any financial Bid you may receive. | As explained above, it is against the evaluation criteria as mentioned in the bidding documents. Please amend. | As per RFP |
| 27 | Bid-Form 2 | Operational Office in Rawalpindi / Islamabad. | As per bidding document, it is mandatory to have office in Lahore. Please amend accordingly. | The Clause may be read as "Operational Office in Rawalpindi / Islamabad/Lahore" |
| 28 | Bid-Form: 6-Financial Schedule | Bidders are requested to provide the cost estimates for its proposed application & database licenses in-line with their recommended hardware sizing for this project given in the respective technical proposals. | As application and database licensing costs are directly dependent on the number of metering units to be supported, kindly provide the total number of metering units or the expected size and scale of the MDM deployment. This information is essential for accurately estimating and including the relevant licensing costs in the financial proposal. | Database should be cluster supported and there will be no limit of metering units. However the database may be disco wise decentralized (Min consumers:7.5 Lak, Max Consumers 8.6 Million) |
| 29 | 1: Software Price | 3 rd Party Licenses One Time cost, if any (a) Notes: Assumption: | <ul style="list-style-type: none"> The Software Price Schedule table refers to third-party licenses as a one-time cost, while the accompanying note states that these licenses are valid for one year. This appears to be a contradiction. Kindly clarify whether the third-party license costs are to be considered one-time or recurring (e.g., annual renewal). | As per RFP |

| Sr. | Reference | Tender Document Statement | APL Query | PITC Reply |
|------------|-----------------------------------|---|---|--|
| 29 | Schedule | Initially, third party license, if applicable, are valid for one year. | <ul style="list-style-type: none"> We suggest that any kind of 3rd party software (e.g., OS, Database, VMs, Clustering, Load Balancing, Failover etc.) desired/proposed by the bidder should be purchased by PITC itself in the first place. This will eliminate the complications which are usually developed at the time of license transfers. Bidder will only propose the required software and will not include their cost in the bid. | Not Agreed |
| 30 | 1: Software Price Schedule | Notes: Bid Money must be calculated based on estimated quantities as mentioned in financial schedule (bid Form 6) | Bid Form 6 did not mention any information about the estimated quantity. Please clarify. | Refer to Section 1.6 in Tender Document |
| 31 | 1: Software Price Schedule | Principal solution support/license renewal cost of implementation Period (if proposed implementation project plan exceeds on year) | Since license renewal costs are subject to change over time due to vendor pricing policies and market conditions, it is not feasible to provide fixed renewal costs in advance for future periods. It is recommended that this clause be revised to allow for indicative or estimated costs, rather than binding figures. | Please refer to BID form 6- financial schedule |