 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--

Date: 03.08.2019

Replies to Queries of the Bidders


SUB: Replies to queries of the bidders for Tender for hiring of agency for automation project for CNG stations for CNG & CGD network of MNGL, PUNE

REF: Bid Document No. MNGL/C&P/2019-20/53 dated 02.07.2019 & Addendum – I dated 23.07.2019.


Dear Sir,

Following are the replies to queries of the bidders. Kindly note the same.


Sr. No	Bidders Query / Clarification	MNGL's Reply / Clarification
1	<p>CI.8 Page no 112 of 141 The data that will be pushed by the RTU to Web-Application must have an intermediate stage wherein the operator at the control room can validate the data before the data is pushed to FTP server, for billing. Without operator validation the Web-Application will not push the data into the FTP server.</p> <p>Uploading the data to FTP server will be in the scope of MNGL or Bidder? Kindly elaborate on the exact manpower requirements from Bidder within the AMC period.</p>	<p>Uploading of Data to FTP server will be in the scope of the bidder. Total manpower deployment must be decided by the bidder in order to attain the %availability of entire system as mentioned in the tender document.</p>
2	<p>CI.15 Page no 113 of 141 After project completion a minimum of 5 years AMC service has to be provided by the vendor, which will include all aspects of the project. During this period the bidder has to implement all necessary changes pertaining to Operational requirement as suggested by MNGL.</p> <p>Kindly elaborate on the changes required during the AMC period?</p>	<p>Changes in User Interface, Software patches/upgradation etc. will be done by the bidder during the AMC period on request from MNGL. Other aspects such as hardware replacement/repairing will come under comprehensive AMC.</p>
3	<p>CI.18 Page no 113 of 141 Mandatory Spares to be provided by vendor after commissioning of the entire system.</p> <p>List to be provided</p>	<p>Mandatory Spares for line item 25 - 70 quantity - Includes parts of the RTU which are more susceptible to damage:</p> <ol style="list-style-type: none"> 1) SMPS 2) Antenna

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--


		3) GSM modem 4) Relays and converters, Barriers. Mandatory Spares for line item 26 - 5 quantity : Completely assembled RTU.
4	CI.C3 Page no 115 of 141 All civil work i.e. installation of RFID readers, conduit installation, trench modification, RTU installation etc. will be in the scope of the bidder. Scope & Amount of civil work like cable trenching, laying of conduits etc. to be identified in SOR	Separate SOR will not be provided, since the existing SOR includes supply and service. Tender Conditions Prevail.
5	CI.D1 Page no 121 of 141 The bidder must provide one engineer and one technician for day to day monitoring and troubleshooting of the Automation project, both on field and Application end, during AMC period. Manpower requirements during project period? During AMC period?	Bidder to decide the amount of manpower required to complete the project within the time frame allotted.
6	CI.1.1.20 Page no 124 of 141 MNGL shall provide supply of 230V AC, 50 Hz in MCC, HO and CNG. MNGL shall provide UPS supply at CNG station. All necessary power distribution and required conversion for MCC, HO, and all site locations are within the scope of AUTOMATION vendor. Battery backup/UPS with minimum 6 hrs. backup/UPS at MCC shall be provided by AUTOMATION vendor. Power distribution cabinet shall be free standing enclosed type cabinet having 25% spare MCB's. Provision of internet 2MBPS connectivity in the scope of MNGL?	Yes. MNGL will provide Ethernet connectivity wherever possible. Rest of the areas where Ethernet connectivity is unavailable will be catered through SIM cards. RTU Should Have Dual SIM Card Slots
7	CI.1.6 Page no 126 of 141 Dedicated Cu - Earthing Pit for all locations shall be provided by AUTOMATION vendor. The earth resistance shall be less than 1 ohm. AUTOMATION vendor shall also take care of onwards connections from equipment to the AUTOMATION / RTU / Telecom etc. and system earthing pit.	MNGL will provide Maintenance Free earthing as per standard.

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--


	pg 117 defines earthing will be done by MNGL; kindly elaborate the correct scope of earthing and to be executed by MNGL or bidder?	
8	<p>CI.1.7.2.11 Page no 128 of 141 The contractor must have relevant licenses (like PWD certified for electrician etc. for electrical work). Drilling machine used by contractors should in good working conditions and fibre body. Electric wire used for machine should not have joints. The electrical tools and hand tools should be as per proper safety standards. The electric hand tool shall have ELCB to prevent shock. Use appliances with 3 pin plugs and connect them to 3 pin sockets only. Property inspected electric resistant gloves must be worn when working near "Live" wires carrying 440 V or more.</p> <p>Bidder certified manpower.</p>	Tender Conditions Prevail.
9	<p>SOR Page no SOR Page 1-2 9 to 18 MNGL specific modification charges</p> <p>Kindly define the type of modifications. The vendor proposes that changes if required will be charged on man-hour basis??</p>	<p>Changes in User Interface, Software patches/upgradation etc. will be done by the bidder during the AMC period on request from MNGL. Charge must be included in AMC charges for the year specified.</p> <p style="text-align: center;">Tender Conditions Prevail.</p>
10	<p>Page 117,118,119 of 141 and various other places RFID Reader / Tag specification</p> <p>Specification of RFID reader and tags are not available. However, specification clearly informs participants on the purpose of the system. As per our understanding the RFID system serves two purpose (1) Identification of Bus or LCV (2) Quantification of CNG filled in individual bus or LCV and registering sales against each vehicle. The specification also mentions of the range of 10 meters for the RFID reader. We request MNGL to allow individual bidders to formulate the best solution for serving the above basic needs of RFID reader and tag. We are 100% sure 10 meters' range would result in inconsistent performance of RFID system (multi-tag reading) resulting in compromising the main purpose of the solution. Also ultra-high frequency and high frequency if not controlled well</p>	Tender Condition Prevails

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--


	<p>can be a health hazard and safety hazard. We do not intent to discard the solution proposed by MNGL, but we request MNGL to allow bidders to select the appropriate solution for meeting the intended application.</p>	
11	<p>Page 120 of 141 One viewing station will be provided in MNGL head office for monitoring.</p> <p>SOR does not specify Viewing station line item. Kindly include the same. Also details on viewing station at HO is not available. Kindly elaborate.</p>	<p>Already included in line item 23. Viewing station at HO is not required. ID & Password for Web Application may be shared to view for specific MNGL's PC in HO.</p>
12	<p>Page 128 of 141 System Availability The AUTOMATION System availability of 99.98% shall be ensured by the AUTOMATION vendor. The AUTOMATION vendor shall ensure that calculation of availability takes into account of MTTR of RTU as 8hrs and Control Room equipment 2 Hrs. Future expansions shall also to be considered</p> <p>Tender specifications asks for system availability of 99.98%. This is extremely difficult and we request MNGL to relax the same to 95%.</p>	<p>Tender Conditions Prevail.</p>
13	<p>Page 111 -OPERATION PHILOSOPHY for CNG Station Automation</p> <p>Kindly provide us detail and clear architecture.</p> <p>Please specify requirement of engineering and operator station</p>	<p>Confirmed, attached.</p> <p>Dell Inspiron Desktop-New Inspiron 24 3480 All-in-One/HP ProOne 400 G4 50.8 CM (20) Non-Touch All-in-One Business PC, both for Engineering and Operator Stations.</p>
14	<p>Page 112- point no 5: The vendor has to design an FTP server to collect data from the Web-Application in a pre-defined format so as to interface with SAP to process the billing for individual CNG station.</p> <p>Please specify FTP required on physical or on web, and also provide the date format for SAP integration.</p>	<p>The FTP or (Secure File Transfer Protocol SFTP) server can act either as a sender or a receiver of messages. The setup and the detailed configuration procedure differ according to the communication direction that is being set up: whether the sftp server is supposed to provide messages to the integration platform or the other way round.</p> <p>A typical task in an integration project is to connect sftp servers to the SAP Cloud Integration Tenant, either for sending</p>

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--


	<p>And who will provide the FTP</p>	<p>messages to or for polling messages from the sftp server.</p> <p>Format of SAP is a .csv file.</p> <p>Secure FTP should be designed, developed and maintained by the bidder.</p>
15	<p>Page 112- point no 6: The web-application will have provision for remotely shutting down CNG compressor of any given station in case of EMERGENCY.</p> <p>Please specify latency time for compressor controlling command.</p>	<p>The RTU should be capable to send as well as receive messages.</p> <p>The web application should show the status of GAS SUPPLY i.e. operating or under shut down for each MRS system.</p> <p>Secondly intimation of "About to Shutdown message to respective customer premises, any physical hardware arrangement at respective ends and its scope of supply work - This is not in scope.</p> <p>Latency time for running data is 5 minutes, but for shut down and gas leakage alarms the latency time is 1 minute.</p>
16	<p>Page no. 112 point no 8: The data that will be pushed by the RTU to Web-Application must have an intermediate stage where-in the operator at the control room can validate the data before the data is pushed to FTP server, for billing. Without operator validation the Web-Application will not push the data into the FTP server.</p> <p>Kindly elaborate actual data flow architecture.</p>	<p>Architecture is attached for reference.</p>
17	<p>Page no113 point no12: All data should be communicated through CAT6 cables from equipment to RTU and then from RTU to cloud server through Ethernet or GPRS as per availability at the site, preferably Ethernet.</p> <p>Please clarify scope of supply for internet/ GPRS Sim connectivity at CNG station site</p>	<p>Internet connectivity and SIM Cards will be supplied by MNGL.</p>

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--


18	<p>Page no113 point no19: Firewall and GPS based master clock to be provided and synchronized for accurate data collection</p> <p>Please clarify GPS based master clock not considered in SOR – please clarify scope of supply.</p>	<p>Master clock supply to be included in the cost of Web-Application development. Separate SOR will not be provided.</p>
19	<p>Page no 114 C.1 SCOPE OF SUPPLY (On-field Equipment): For PLC logic Modification for Integration of CP 430/431 Redundant communication card, DI Module, Flow meters (Booster & LCV Flow meters) Kindly specify the ownership of the Compressor & Dispenser PLCs and also require clarity on the cost implication for PLC Program modification with the PLC Vendor. We propose a common cost to be specified by MNGL w.r.t the PLC Vendor.</p> <p>Kindly Clarify who will provide the PLC Data addresses, Communication port, Commented logic for modification and PLC Login Credentials.</p>	<p>MNGL will provide all PLC data to the successful bidder and will also facilitate the process in consultation with the OEM. Cost of modification to be borne by bidder considering the above.</p>
20	<p>Page no 114-point no. 1: For the Online Compressors following items are to be supplied during the project: CP340/341 Redundant Communication card for Siemens S300 PLC as per SOR and requirement.</p> <ul style="list-style-type: none"> • Extra rack for installation of cards/modules. • Extra DI module. • CAT6 cable of at least 30 meters. • Cable glands • Ethernet connectors <p>As per site visit, it is observed spear profibus port available on Redundant PLC, kindly clarify the requirement for CP340/341 Redundant card. Kindly suggest the location/ space and availability for installation for extra rack for card/ module.</p> <p>Kindly clarify of SOS of IM card, profibus cable and connector for communication.</p>	<p>Bidder has to take into consideration the supply of redundant cards while bidding. In case the available ports are non-functional or unavailable then the MNGL will not be liable for extra cost incurred by the bidder after bidding process.</p> <p>Space is available for redundant communication card in all PLC modules. All spares required for installation of communication card like connectors, profibus cables etc. to be included in the cost of card.</p>

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--

21	<p>Page 115 - Miscellaneous: Ex-Proof power distribution board</p> <p>Kindly specify location to install Ex-proof power distribution box , also its mounting provision</p>	Location will be different for every site, but mostly body mounting/wall mounting will be required.
22	<p>C.2 SCOPE OF SUPPLY (RTU): Page 115 point C2:</p> <p>Can we proposed modular RTU with separate GPRS Modem as per Oil and gas Standard?</p>	Yes. Accepted.
23	<p>D.1 Web-Application and Server Scope of Supply and Scope of Work:</p> <p>Page 117 point: Entire Web-Application will be hosted on cloud server with proper redundancy</p> <p>Kindly elaborate web application redundancy.</p>	Web-Application must be hosted on redundant cloud servers to avoid downtime due to crashing or malfunctioning etc. The application must be able to switch seamlessly in case of malfunction in the running app.
24	<p>Page 118: Provision for CCTV footage display.</p> <p>Please elaborate Scope Of supply of CCTV and where to display CCTV footage</p>	CCTV are already installed at our sites and connected to local PC. The bidder has to provide link for all sites in the application. When clicked on the link the application must link the field CCTV footage display PC and display the same on the application itself. Basically it will be remote viewing of the local PC on the application. Storage of footage in the cloud server is not required.
25	<p>Page 119: All IoT/RTU should be capable of update remotely from Web-Application interface. No need to individually update each RTU/software in field devices.</p> <p>Need more clarify on this point.</p>	The RTU provided by the bidder must be able to upgraded/modified from the central control room, without physically connecting the same on field.
26	<p>Page 120 : Managed Services for Primary Site (DC) & Secondary Site (DR)</p> <p>Need more clarify and explain on this point</p>	The bidder must provide engineering services (maintenance, documentation, troubleshooting etc.) for Primary Site i.e. Master Control Room and secondary site i.e. field side where RTU is installed.

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--

27	<p>Page 119: For remote monitoring and management bidder has to provide the internet link at Primary Site DC & Secondary Site DR.</p> <p>Kindly elaborate requirement.</p>	<p>Internet connectivity is in the scope of MNGL. Bidder need not provide internet link.</p>
28	<p>Page 120: Extensive redundancy for all data and web-application to be provided and switching time between servers must be fast enough to avoid loss of data in case of server failure.</p> <p>Kindly elaborate with suitable architecture.</p>	<p>Architecture attached. Redundancy of application and data storage to be provided by bidder & approved from MNGL before commencing project. Bidder to design redundancy of the entire system so as to attain the required efficiency as mentioned in the tender document.</p>
29	<p>Page No 118</p> <p>Entire communication will be based on MQTT protocol (Message Queue Telemetry Transport Protocol) for critical parameters and CoAP for non-critical parameters as per tender document. - Define critical and non critical parameter,</p> <p>Please clarify why two different protocols is required, can we use MQTT protocol for both Critical & Non Critical parameters.</p>	<p>Tender Condition prevails. Critical & non critical parameters will be defined during project phase.</p>
30	<p>Page No 118</p> <p>CCTV bandwidth, image resolution and communication protocol.</p> <p>Please clarify where the CCTV is already communicating the footage. Is there any separate link for CCTV Footage visualization.</p>	<p>CCTV are already installed at our sites and connected to local PC. The bidder has to provide link for all sites in the application. When clicked on the link the application must link the field CCTV footage display PC and display the same on the application itself.</p> <p>Basically it will be remote viewing of the local PC on the application. Storage of footage in the cloud server is not required.</p>
31	<p>Page 6</p> <p>ISO/IEC 27001 or ISO/IEC 20000-1 or ISO 9001 or ISO 22301 or CSA STAR or ISO/IEC TR 20000-9 or ISO 27017 or ISO 27018 and mandatory certifications include PCI DSS Compliance, Ministry of Electronics and Information Technology certification from Govt. of India, ANSI/TIA-942:2017 Rated 3 certifications-</p>	<p>Tender conditions prevail.</p>

 MAHARASHTRA NATURAL GAS LIMITED	REPLY TO BIDDERS QUERIES AGAINST TENDER FOR HIRING OF AGENCY FOR AUTOMATION PROJECT FOR CNG STATIONS FOR CNG & CGD NETWORK OF MNGL, PUNE Bid No.: MNGL/C&P/2019-20/53
---	--

	Does PCI DSS Compliance, Ministry of Electronics and Information Technology certification from Govt. of India, ANSI/TIA-942:2017 Rated 3 certifications mandatory for Submission.	
32	Page No 03 CPBG Bidder proposes separate PBG for supply and separate annual BG for AMC Period, kindly approve.	Accepted.

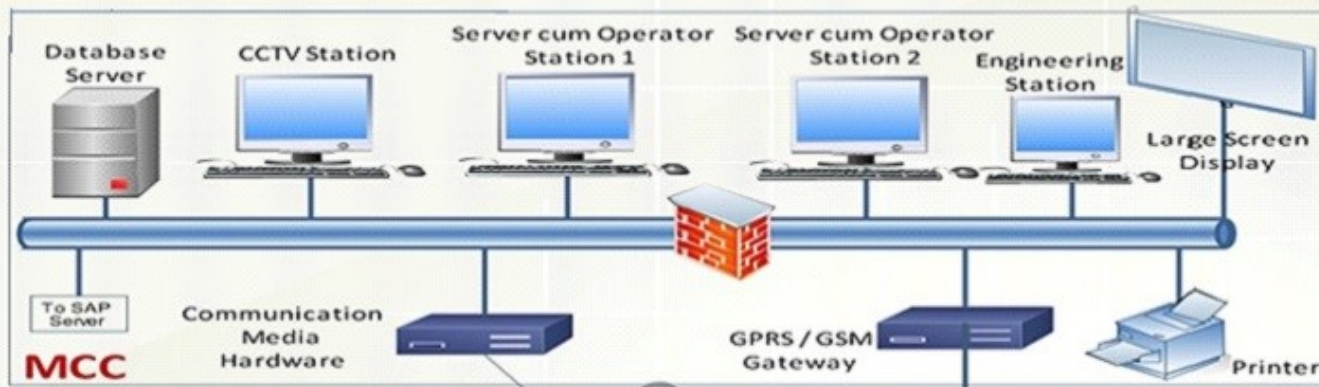
Please submit the signed & stamped copy of Replies to Queries of the Bidders along with tender document with your techno-commercial offer as a token of acceptance.

All the others terms and conditions of the bid documents are unchanged.

With regards.

Ganesh Said
Sr. Manager (C&P)

Overall SCADA System



Access on any device with an internet connectivity through cloud interface and secure login credentials.

View Client @ HO

