

QUERIES RAISED DURING PRE-BID MEETING BY BIDDER AND REPLY / CLARIFICATION TO BIDDERS BY OWNER

Tender No.: SGL:TEND:75:2022-23			Date / Time of Pre- Bid : 30.09.2022		
Venue: Sabarmati Gas Ltd			Date of Pre-bid Clarifications:		
Tender Description: "IOT Based Monitoring System for FC-EVC Installed at TOPs & DRS at Various locations"					
Sr.	Tender Clause No. / Annexure	Page No.	Clause Description	Bidders Queries	SGL/REPL Replies
Commercial					
2	PAYMENT TERMS	51 of 86	Part 1: SITE OF IOT based Monitoring System for FC-EVC installed at TOP & DRS: 1) 90% Payment against supply, installation, testing, commissioning, including commencement of AMR readings 2) 10% payment against receipt of all related documents, certificates and receipt of undisputed invoice after 30 days from the commencement of AMR readings. Part 2: SERVICES for 5 Years: 1) 100% payment against successful completion of all activities required for receipt of uninterrupted meter readings and receipt of undisputed invoice certified by SGL EIC.	We request M/s. SGL to accept the 100% payment in advance for supply, installation, testing, commissioning, including commencement of AMR readings and receipt of all related documents, certificates and receipt of undisputed invoice. Please amend to get part payments as supply completed. Please reconsider this to make it fair against supply as per company and industrial practice.	Tender conditions Prevail Tender conditions Prevail
3	Application of IoT based AMR/RTU/IoT based devices	51 of 86	Application of IoT based AMR/RTU/IoT based devices	Bidder proposes below terms of payment:- For Supply: 90% payment against receipt of material at SGL store. Balance 10% against Installation, testing commissioning including commencement of AMR reading. However, if ITC is not started within 90 days after supply, due to nonavailability of site due to reasons not attributable to the vendor, balance payment of 10% of the total supply part shall be processed for release to the supplier.	Tender conditions Prevail
4	Delivery Schedule:	Page 51 of 86	Delivery of 1st lot shall be completed within 6 weeks from date of Call out order.	As we understand that the services-part contract will begin for a period of 5 years from the date of commissioning of the very first AMR system. Please confirm.	Contract will be valid for 5 year from the date of Project completion timeline of first call order (installation of last device including commencement of meter reading of first call order)
5	Payment terms (Part 1)	51 of 86		Providing external power supply based system (for eg. Solar panel, accessories, etc.) will only increase the capital-cost and maintenance by a huge margin to SGL. Thus, we request SGL to kindly revise the requirement to battery operated AMR system. Please confirm.	Bidder is free to select any one power mode either Solar backed or battery backed power system. Bidder to ensure availability of required power and allied system to operate the proposed system throughout the contract period of 5 year and to meet data frequency in line with tender docs
	PO Award or Evaluation of Bids	14 of 86		We would like to inform SGL that the product selection must be with Bidder as such requirements can minimise the selection of hardware and thus, liability may lie with SGL. Hence, any port selection (RS232/RS485/other) must be done by the Bidder as per the technical requirements.	Installed FC/EVC shall support RS232
6	Contract Period (Part 2)	52 of 86		The FC/EVC must be on open protocol or inter-operable protocol (shared protocol) with open communication port (without any blockades or passwords) so that access to the primary equipment is available. In case the FC/EVCs are not available with Standard Communication port (RS232/RS485 without any password or lock) and Open Protocol then SGL must replace the equipment. Please confirm.	Refer annexure 1 list of installations for checking the compatibility, Bidder to make necessary arrangement, tender conditions prevail
8	Vol I (ITB)	18 & 19 OF 19	4.SLA and PENALTY: 3.2 In case the timeline not met as stated in SERVICES DURING AMC clause vendor shall be penalized as given below: ☐ Gateway / instrument off issues – 1000 Rs per excess Day ☐ Remote resolution- 1000 Rs per excess Day 3.3 Penalties during project implementation ☐ Beyond the specified project completion timeline, successful bidder to pay Rs 5000 for each excess day taken to commission the project.	It is Bidders Understanding for Penalty Clause No. 15.0 as mentioned in Technical Volume-II shall be applicable. Please confirm.	Penalty applicable as per clause no 15.0 of Technical Volume -II
Technical					
1	Penalty clause / PRS	52 of 86	Penalty clause / PRS	As per industry standards and considering our vast experience in CGDs like IGI, MGL, GAIL Gas Ltd., etc.; 2-4 times a day data-polling is enough. Even in case of critical sites or situations, data-polling could be increased upto 24 hours per day. This is sufficient for any gas company to perform data-investigation. Hence, we strongly recommend SGL to consider the same approach and this will save SGL on capital+operational cost of the AMR system. Please confirm.	Tender conditions prevail
2	Penalty clause	52 of 86	Penalty clause	Data-parameters to be fetched by the AMR Modem/RTU/Gateway will completely depend on the parameter supported/available on the EVC/FC device. If any parameter is not supported or available in the FC/EVC then such parameters cannot be communicated by the AMR device. Please confirm.	Bidder understanding is correct
3	BEC - Documentation (past work experience)	12 of 86	BEC	Kindly note that based on our vast experience of supply & services of AMR system for I&C meters, we have majorly supply battery-powered devices with a battery-life of 3 to 5 years for minimum 3 to 4 data-polling per day. These AMR devices have been installed at various CGDs like IGI, MGL, GAIL Gas, etc. and the system is performing successfully. Even in case of their VIP or Default-consumers, the data-polling is increased by the CGD as and when required, from 2 Polling cycles to 4/6/8 Polling cycles for detailed monitoring/investigation purpose. This happens on case to case basis only. Thus, battery operated AMR devices must be sufficient for the said tender scope.	Tender condition prevail
4	FEATURES OF IOT BASED MONITORING SYSTEM	5 of 19	All devices from field should report simultaneously to platform rather than one by one polling. Initially normal data gathering frequency will be as below 1) 4 times /day, every 6 hours once data gathering for DRS 2) 24 times/day, hourly once data gathering for each TOP Proposed Hardware should have necessary compliancee Hazardous area classification approvals.	More frequently communication will more deteriorate the battery life. Hence request to review the frequency of data communication with server. kindly note that Exception reports are prepared based on the data availability on server. It is independent of the device function and dependent on the communication or data-availability on server.	Tender condition shall prevail
5		5 of 19	Proposed hardware should have RS232 and RS485 Port, can be programmed to RS232 or RS485 based on site requirements;	Any alarm or parameter could be set in the primary equipment using local mode of communication. Also, any parameter or alarm limit could be set only if the primary metering equipment supports the same.	Tender condition prevail
6	AMR System	10 of 19	Grid independent, Battery or Solar Panels with battery packs for powering of EVC, Sensors, Modem & associated devices	AMR system should be self battery operated and independent of arrangements like solar / battery / chargecontroller, JB etc. We understand that SGL require certified single unit product. Pl confirm	Tender conditions Prevail

Sr.	Tender Clause No. / Annexure	Page No.	Clause Description	Bidders Queries	SGL/REPL Replies
7	Data required from meters where FC & EVC installed	6 of 19	Pressure & Temperature	We understand that corrected Volume, uncorrected Volume, Correction Factor, etc is available in parameters, request to remove the Pressure and Temperature from the requirement.	Tender conditions Prevail
8	EVC Sites	10 of 19	EVC battery life should monitor	Battery life of EVC is already being registered and displayed in the EVC, it can be difficult to fetch such data from EVC. Request to remove the parameter.	Tender condition prevails
9	AMR System	10 of 19	Mode of communication should be one way	We request M/s. SGL to confirm if only one way mode of communication is acceptable or two way communication also required.	Tender condition prevails
10	Delivery Period	17 of 19	Technical Part: Complete integration shall be done within 12 weeks from the date of call order	The Delivery terms in both Commercial & technical parts mentioned are different, kindly confirm and clarify the delivery period for our consideration.	Delivery period shall be according to Technical part Bidder shall supply installation testing & commissioning the system within 12 weeks from the date of intimation by SGL.
		51 of 86	Commercial Part: Bidder shall install the system within 6 weeks from the date of intimation by SGL. EIC SGL shall place multiple security call orders against the contract.		
11	AMC PERIOD OF SYSTEM & WEB PORTAL	18 of 19	Scope of AMC shall be in line with standard industry practices and as directed by SGL EIC.	We request M/s. SGL to provide us the AMC Service scope to be covered.	It is already mentioned in clause no. 13 and 14 of Technical volume II Hardware component failure/replacement/ malfunctioning resolution as a whole device or component, software glitches, Firmware upgrades, connectivity issues, including delivery at the locations
12	AMR System	11 of 19	Vendor must physically verify the readings (MR data vs actual meter and EVC readings at site) once in every month and photographs of the same shall be shared to SGL.	Please confirm if bidder has to physically verify the EVC readings at site. If yes, then please clarify if the transportation, lodging, boarding cost to in account of bidders or customers.	Vendor must physically verify the readings (MR data vs actual meter and EVC readings at site) once in every month and photographs of the same shall be shared to SGL. Transportation, lodging, boarding cost to in account of bidder
13	FEATURES OF IOT BASED MONITORING SYSTEM	5 of 19	Proposed hardware should support 4G / 5G technology for data gathering.	As per the standard practice in various CGDs hardware supporting 2G/3G technology for data gathering are accepted. We request M/s. SGL to kindly accept the same.	2G shall not be accepted, selection of other technologies shall be decided by bidder
14	Volume II of II Technical	3	List of installations whose readings are required is attached herewith as annexure 1.	Please do share this Annexure I since its not with tender documents. Please furnish make and model no. of installations.	Annexure I is attached
15	5 / Volume II of II Technical	7	Device must be fitted with inbuilt battery system to provide backup for at least 3- year life	Solar based battery system can't have this much of back up please amend battery backup requirements to few days only	Bidder to provide battery backup along with all required accessories to operate the proposed system for entire contract duration, any replacement of battery should be in the scope of bidder without any effect of system performance
16	4 / Volume II of II Technical	5	Communication Protocol will be serial Modbus protocol	Client to provide all devices with Modbus output, if any devices are not having Modbus output, then it will be ensured and provided same by client.: Please confirm	Noted
17	Clause 4.9 Vol-II		You are asking for PoC at 3 sites before considering bid.	Is it ok with 1 site PoC.	Tender condition prevails
18				POC at any one of the sites must be enough for the length of tender requirement. Please confirm.	Tender condition prevails
19	clause 4.4,2 Vol-II			Your requirement of installing PT/RTD along with data capture of FC/EVC is not clear. How many quantities of these are needed.	Meter to FC /EVC connectivity shall be in SGL scope ,Bidder scope shall be from FC EVC hence PT/RTD shall be in SGL scope
20	1. BACKGROUND:-	3 of 19	SGL intends to have a single point service provider for design, manufacture, supply, installation including 5 year operation of IOT based monitoring System for FC-EVC installed at TOP/DRS along with required software / hardware services.	Please define date which shall be considered for start of 5 year operation period.	Contract will be valid for 5 year from the date of Project completion timeline of first call order (installation of last device including commencement of meter reading from first call order)
21	2. SCOPE OF WORK:-	4 of 19	Supply of required devices / gateways/ RTU to install onto DRS/Tap off stations to communicate via FC/EVC with server	It is requested to provide FC/EVC communication protocol	MODBUS open protocol
22	4. FEATURES OF IOT BASED MONITORING SYSTEM	5 of 19	Proposed Hardware should have necessary compliance Hazardous area classification approvals.	RTU is approved by PESO for Hazardous area classification Zone 1	It is classified in Zone -1
23	4.4.2) EVC Sites	10 of 19	Hardware for servers. Servers should be OPC compliant. Cloud based data access is accepted. Hardware sizing to be done by bidder to avoid undersize hardware hence sizing must be approved by SGL.	Please explain server type and server size properly, cloud or physical.	physical or cloud shall be decided by bidder, hardware sized by the bidder and sizing and architecture to be submitted by bidder to SGL during engineering phase for approval, ANY suggestion from SGL has to be incorporated into the sizing and architecture,
24	4.4.2) EVC Sites	10 of 19	Hardware OPC compliances, data security and compliances as Laid down by SGL would be in bidder scope	Please elaborate as this point is not clear. In IOT base automation OPC not required, MQTT protocol or equivalent is required.	Open Platform Communication compliance is required, if the protocol falls under the same SGL accepts the same
25	4.4.2) EVC Sites	10 of 19	DR instance to be provided for the primary instance.	Please elaborate as this point is not clear	RPO, RTO should be minimal DR instance to be provided for web application
26	4.4.2) EVC Sites	11 of 19	Provision for Data back up by SGL at no additional cost	It is bidders understanding that only provision is required.	provision as well as monthly data backup to be shared with SGL before invoicing
27	4.4.2) EVC Sites	11 of 19	SGL approved PT/TT/RTD, as required	Please define make, specification, where it is used, purpose of this device.	Refer SL No 19 technical
28	4.4.2) EVC Sites	11 of 19	Any tapings if required for installed of PT/RTD etc are in vendor scope.	If PT/RTD is required then please include it in SOR line item.	Refer SL No 19 technical
29	4.4.2) EVC Sites	11 of 19	Cable used for PT should be 1Px1.5mm2 signal cable and Cable used for RTD should be 1 Tx1.5mm 2 wire cable. Both cables should be armored and shielded.	Please specify length of cable required and include it in SOR line item.	Necessity requirement of cable is already mentioned in tender document.
30	4.4.4) Hardware:	12 of 19	ATEX certification Zone 1 for IOT based device shall be provided. PESO/CCOE Nagpur certification shall be provided. Equipment type approval from concerned authorities like wireless planning & coordination wing WPC/WEEE/ROHS shall be provided. Hazardous Area: Area Classification as per IEC-79 -Zone 1, Group IIA & IIB, T3/T4.	RTU is approved by PESO for Hazardous area classification as per IEC-79 Zone 1, Group IIA & IIB, T3/T4. Please confirm acceptance.	Tender condition prevail
31	5.0 DEVICES / INSTRUMENTS FOR FIELD INSTALLATION:-	16 of 19	The instrument must be zone 1 compliant in case if the same is not zone 1 compliance same shall be installed in ex proof junction box	It is not advisable to use any instrument without Zone 1 Compliance as ex proof junction box alone is not sufficient to comply with Zone 1 area classification.	Bidder Understanding is correct
32	12.0 DELIVERY PERIOD:-	17 of 19	Complete integration shall be done within 12 weeks from the date of call order	It is bidders understanding that delivery schedule of 12 weeks is applicable for supply part. I&C need to be completed within 6 months of PO as per Clause 15.	Refer Technical volume clause 12 for installation which includes supply installation test and commissioning
33	11.0 WARRANTY:-	17 of 19	Warranty for the equipment shall be 18 months from the date of receipt of goods at SGL's store.	Bidder has to provide Comprehensive AMC for Automation system so separate warranty clause is not required. Please confirm.	As per clause no. 11 of technical vol, Warranty for the equipment shall be 18 months from the date of receipt of goods at SGL's store. Along with this, Clause no. 13 of technical vol, Bidder shall provide Annual Maintenance services as per the details provided in the SOR, shall also prevail.
34	BQC	1 of 2	1.1 TECHNICAL CRITERIA:	Bidder has experience in Automation of Meter Regulating Stations and District Regulating stations installed at industrial customer premises for Natural Gas Distribution network. Please confirm its acceptance.	Bidder should comply BQC criteria.

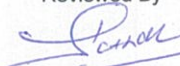
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35	SOR	NIL	SOR Quantity of Power supply system and FLP Junction box	It is bidders understanding that a total of 60 no. IoT systems need to be installed however qty of Power supply system and FLP junction Box are not same in SOR.	Ref annexure "list of installations"
36	SOR		SERVICE CHARGES Internet lease line (ILL)	Explain purpose of Lease line?	For complete operation of proposed system required internet connectivity and allied systems including any leased line is already in the scope of Bidder irrespective to location of server, type of server However in future if SGL asks to provide ILL for keeping data hosting & processing device during move out (if required) or any other devices part of proposed system, SGL shall made effort to arrange ILL in case SGL couldnt arrange the same, Bidder has to provide. Please note this SOR is a provisional SOR.
37	Additional query			Control room details are not given in tender document. Please furnish the same.	this clause is not part of tender
38	Vol II, Cl. 2		4 Scope of Work	Web application includes the IoT Software (Advanced Meter Management Software). What is missing is: · the device integrations (EVC's, FC's, Sensors); · System Integration (SAP, GSP); which is a major component and needs to be separately provisioned in the BQC as well. To enable this added information is required for effort estimation such as makes and models of EVCs, FCs, meters, sensors, etc. AMC implies only hardware maintenance. What appears missing are:	Device integrations (EVC's, FC's, Sensors) & System Integration (SAP, GSP) is in the bidder scope, Refer annexure I for make and models of Evc & FC SAP integration to be done through FTP server bidder to provide data in the required format.
39	Vol II, Cl. 2		4 Scope of Work	IoT Software (Advanced Meter Management Software) AMC, Annual Technical Support (Level 1, 2 and 3). Kindly elaborate purpose of depicting linkages between Application hosting and database server with SGL database; since the requirement calls for system(s) integration	
40	Vol II, Cl. 4		5 System Architecture Features of IoT based Monitoring System	Clause 4.4 specifies communication shall be one way; however, this clause specifies · data gathering frequency to be configurable OTA; · system should support on-demand reads; · alarm limits can be set via the platform; which are contradictory. This also indicates that the devices EVCs/FC's need to be configured for both push and pull mode of configuration, Kindly confirm. SGL/consultant will also facilitate with EVC-FC device manufactures to obtain details of communication protocol, data model, object list, integration list, etc. as desired to allow the successful bidder to integrate their devices with the IoT/AMM Software. Kindly confirm Kindly confirm that relevant data will be available from the field devices and the IoT/AMM Software shall support the functionality for configuring thresholds, limits, range, etc. Battery level data shall be available from the EVC. Kindly confirm (this is estimated & not measured parameter)	Tender conditions prevail, SGL noted that data parameters (output of EVC/FC) shall have to be brought by proposed system
41	Vol II, Cl. 4.4		9 Generation of Daily Exception Report	Data Transmission Frequency specified in this clause defers with earlier indicated data reading frequency (Pg. 5). Kindly confirm which one to consider for SIM Charges as well as bandwidth. Kindly elaborate of local storage of data – one month	data transmission frequency shall be in line with page no 5, however Field data Gathering frequency should be adjustable via OTA and can be adjustable individually for each individual field devices
42				For hardware sizing, information provided is inadequate – no. of parameters from each device (EVC/FC), meter and sensor, frequency, number of alarms/events per device, storage and archiving period Since 95% system availability is requested, downtime is 18 days/year which does not necessitate DR. Kindly confirm	Refer page number 5 & 6 for parameters, frequency and Page 9,10 for exception report. Bidder to calculate required storage and the sizing shall be approved by SGL during detail engineering DR doesn't have any linkage with SLA as SLA 97% data is required on day to day basis and on system wise 75% of Data shall be accepted, system availability per day doesnot have relation with DR.
43			10 Data Transmission Frequency Hardware Sizing DR instance to be provided for primary instance	Kindly elaborate how this has to be implemented Since the IoT/AMM Software already includes functionalities of HES and MDM, kindly elaborate if this needs to be integrated with an additional MDM; if yes, provide details E-mail option is generally made available through CRM/Customer Portal, etc. The IoT/AMM Software allows ticket generation for WFMS or role assigned user access. Kindly confirm this will meet your requirement	Additional MDM is not required DR is required for physical hardware server only, for cloud based servers HA (high availability) is required
44	Vol II, Cl. (d)		11 Provision of Data backSystem by SGL integration with MDM	In case of missing or inaccurate data, alternate mechanism is to use VEE functionality to create VEE data to replace/backfill missing data. Kindly confirm if this meets your requirement This calls for Annual Technical Support (ATS) to be included under the AMC, as requested in Query No. 6. Kindly confirm SGL Executives/Users shall have role based access to the IoT/AMM Server through the GUI interface (standard product).	Standard industry practices to be followed
45	Vol II, Cl. (e)		11 E-mail alert:	E-Mail is normally facilitated through CRM/CIS and Consumer access is provided through Consumer Portal and Mobile App – both of these are independent systems and beyond the scope of IoT/AMM Software. Request you to kindly review these requirements or enhance	Alerts /alarms required to be display on dashboard (Web-application)
46	Vol II, Cl. (f)		11	the Scope of this Project Training is a critical part of Project Scope and needs to be elaborated further – Operator Training, Admin Training, Device Integration Training, System Integration Training, Basic (L1) Support Level Training, etc. and the mode – remote/in-person, etc. to calculate costs involved	As per clause no 4.5 of Technical Volume -The bidder shall be required to hold a training session at site as well as in SGL head office initially for approx. 20 personnel and thereafter every year during the contract period to facilitate the operations.
47	Vol II, Cl. (m)		11 Ticketing System	PoC requires actual device and system integration to be in place before installed field devices can communicate with the IoT/AMM Software to demonstrate and end-to- end system functionality and specific use cases, which is time intensive and an expensive proposition and cannot be achieved in such a short time	Tender condition prevails
48	Vol II, Cl. (n,o,p)	11	Consumer Portal, CRM/CIS	We request you to kindly allow a remote/in-person presentation of the system offered along with a demonstration of the IoT/AMM Software functionalities and certain use cases. Request you to kindly confirm acceptance as this provides adequate confidence in the capabilities of the vendor organization and the solution proposed in their offer Timelines proposed are inadequate and does not permit, Project Planning and Implementation, Preparation of SRS / FDS, etc. which are essential for successful execution. We request you to kindly review time required for device	Tender conditions prevail

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				and system integrations and also factor in the same Kindly elaborate on UAT and Go-Live Milestones (missing) Kindly confirm: Licenses are required for 60 Nos. of connected field devices (EVC/FC/Flow Meter/Sensor, etc.)	
49	Vol II, Cl. 4.5	13	Training	License can be offered either on a subscription model based on monthly recurring fee for a 5 year period or this needs to be a perpetual license with recurring monthly AMC Fee + ATS Kindly confirm, this is Cloud Infrastructure for the IoT Software during implementation phase + for a period of 60 months post Go-Live	Tender conditions prevail
50			lot System Software	As the skids and metering equipments are installed in different GA, we request SGL to provide the detailed list of sites to be covered under the tender along with the list of Make-Model No. of Metering Equipment considered for AMR upgrade. As we understand that the Bidder can also install other make of EVC with AMR i.e. replace the existing EVC/FC models. The data-polling parameters will be transmitted as per the tender requirements. Considering the overall global crisis situation of components like Semi-conductors, micro-processor chips, battery cells, etc. the time-duration required to manufacture any EVC/METER/AMR-MIU needs to be considered as minimum 24-26 weeks. Thus, the overall delivery period for 1st Lot shall be minimum 27 weeks from the date of LoA/PO. As the lot-sizes are too small, the subsequent delivery schedule must be considered as 16 weeks from the date of PO. Please confirm. Considering the above concern, every Bidder would require to plan their production and hence, SGL must mention the minimum Lot-size per call-out order and tentative schedule of the CO.	Annexure 1 is attached for detailed list of sites to be covered under the tender along with the list of Make-Model No. of Metering Equipment considered for AMR upgrade. Delivery period is 12 weeks including SITC This is an ARC contract SGL shall place multiple call orders
52		4 of 19	Scope of work under this tender includes design, manufacture supply & installation of required hardware/ software/ device including comprehensive AMC services of IOT based monitoring system for DRS & Tap off stations for a period of 05 years	Please provide the detailed list of devices installed on Tap-off/DRS sites. Please mention site-wise information whether data needs to be extracted from FC or EVC distinctively.	Refer annexure 1 attached
53	Supply of power backup system wherever is required.	4 of 19		Kindly note that based on our vast experience of supply & services of AMR system for I&C meters, we have majorly supply battery-powered devices with a battery-life of 3 to 5 years for minimum 3 to 4 data-polling per day. These AMR devices have been installed at various CGDs like IGL, MGL, GAIL Gas, etc. and the system is performing successfully. Even in case of their VIP or Default-consumers, the data-polling is increased by the CGD as and when required, from 2 Polling cycles to 4/6/8 Polling cycles for detailed monitoring/investigation purpose. This happens on case to case basis only. Thus, battery operated AMR devices must be sufficient for the said tender scope. Providing external power supply based system (for eg. Solar panel, accessories, etc.) will only increase the capital-cost and maintenance by a huge margin to SGL. Thus, we request SGL to kindly revise the requirement to battery operated AMR system. Please confirm.	Bidder is free to select any one technology either Solar backed or battery backed power system, Bidder to ensure availability of required power and allied system to operate the proposed system throughout the contract period of 5 year and to meet data frequency in line with tender docs
54	Data-parameters of FC/EVC	6 of 19		Flow meter is not part of the scope of AMR data-availability. As we understand data needs to be fetched by EVC/FC only. Please clarify.	Bidder understanding is correct
55	Data-protocol and Communication port of FC/EVC	6 of 19		Power supply to the EVC/FC must be covered under the Client Scope. The device is supplied by the Client and thus, any failure to the device cannot be made liable to the vendor. Please confirm.	Power supply to FC/EVC shall remain in SGL scope
56		6 of 19	Field data Gathering frequency should be adjustable via OTA and can be adjustable individually for each individual field devices	As we understand that the Bidder can quote Cloud Server with all the necessary Firewall license, OS license, Database license, antivirus, backup, etc. The cloud server will be transferrable to the Client's name after 5 years of Service contract. Please confirm.	Web application shall be owned by SGL IP (intellectual property) property lies with SGL. All the development codes shall be shared with SGL during the project completion
57		7 of 19	It should be possible to have on demand data gathering for selected site (on demand frequency may vary from 5 min to any user selectable time, i.e. 5+1, 5+2, 5+3 minutes) for operations observation.	EVC/FC must be configured to archive data for 5mins or more. AMR/RTU/IoT device will poll data from the primary equipment (FC/EVC) archive memory. Thus, archive memory polling will depend on the primary metering equipment provided by SGL.	Noted
58		7 of 19	Historical data storage shall be configured on time-based or event-based (alarmstate change)	We would like to inform SGL Historical or any other data will be done based on the features available in the primary metering equipment and not just on AMR.	Bidder to store such data on web application for data mining and different analysis
59		8 of 19	Alarm limits can be set for individual parameters from platform for Alert/Alarm generation	Any alarm or parameter could be set in the primary equipment using local mode of communication. Also, any parameter or alarm-limit could be set only if the primary metering equipment supports the same.	Tender conditions prevail
60		9 of 19	4.4) GENERATION OF DAILY EXCEPTION REPORT	Kindly note that Exception reports are prepared based on the data availability on server. It is independent of the device function and dependent on the communication or data-availability on server.	Tender condition prevails
61		10 of 19	Flow Meter reading using Pulse counters/OCR or any other competing technology	Flow meter is not part of the scope of AMR data-availability. As we understand data needs to be fetched by EVC/FC only. Please clarify.	Bidder understanding is correct
62		10 of 19	Grid independent, Battery or Solar Panels with battery packs for powering of EVC, Sensors, Modem & associated devices.	Power supply to the EVC/FC must be covered under the Client Scope. The device is supplied by the Client and thus, any failure to the device cannot be made liable to the vendor. Please confirm.	Power supply to FC/EVC shall remain in SGL scope
63	Server deployment by Bidder	10 of 19		As we understand that the Bidder can quote Cloud Server with all the necessary Firewall license, OS license, Database license, antivirus, backup, etc. The cloud server will be transferrable to the Client's name after 5 years of Service contract. Please confirm.	Web application shall be owned by SGL IP (intellectual property) property lies with SGL. All the development codes shall be shared with SGL during the project completion. System will be on SAS model

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		11 of 19	Interfacing with SAP, GSP, MDM. Report Generation for analysis free of cost	Please confirm what applications are available at present with SGL for integration. Every integration comes at a huge cost and unnecessary loading of cost on such project will increase the overall cost to SGL. Thus, it is highly recommended that SGL clearly defines the actual requirement at tendering stage. (Details would be required for understanding API of all such applications to quote the most competitive price.)	Bidder Scope: Interfacing with SAP. Report Generation for analysis free of cost, Interfacing shall be through FTP
65		11 of 19	Cable used for PT should be 1Px1.5mm2 signal cable and Cable used for RTD should be 1Tx1.5mm 2 wire cable. Both cables should be armored and shielded. i) Cable Glands used should be double compression explosion proof.	All the AMR devices are ATEX/PESO certified and thus, cable/instrument selection must be done by the Bidder only. SGL shall confirm the compliance to the data-requirement as per the tender conditions. Please confirm.	Bidder understanding is correct
66		12 of 19	Vendor must physically verify the readings (MR data vs actual meter and EVC readings at site) once in every month and photographs of the same shall be shared to SGL.	Being an AMR project, verification of data on monthly basis is not recommended. Also, the spread of GA is huge and thus the verification of meter-readings must be done every quarterly basis. Kindly confirm.	Reading verification frequency Initial 3 months shall be monthly, later quarterly
67		12 of 19	ATEX certification Zone 1 for IOT based device shall be provided. PESO/CCOE Nagpur certification shall be provided.	Generally, ATEX Zone 1 certificate is enough for hazardous areas applications. PESO certificate for AMR devices is currently observed to very subjective. We have 2-3 applications with PESO and the same have been held due to ambiguity in the classification of the hazardous area. Also, the current tender could be quoted with alternative FLP enclosure application with a valid PESO certificate. Thus, ATEX certificate is not required. Hence, we request SGL to kindly allow either ATEX or PESO approval for the said tender. Bidder can provide declaration for submission of the PESO approval letter if required in the future. Please confirm.	Bidder understanding is correct
68		13 of 19	Communication from each and every end point shall be in the bidder's scope including redundant SIM's for every point. Updating of SIM technology will be in vendor's scope.	Please confirm whether application of redundant SIM-card means using dual simcard modem? If yes then such systems are not required and could be bidder-specific only. 5 years comprehensive maintenance is already under Bidder's scope and thus, it will be taken care. If SGL intends to bring in more bidders then single sim system (economical solution) must be considered. Please confirm.	redundant sim is recommendation only, Bidder to decide the required number of SIM's, SGL shall monitor the SLA
69		13 of 19	Real time Uptime report should be available for all the devices on web application at all time.	By Real Time, we understand that the last available data on the server. Please confirm.	SGL intends to monitor the child device status in real time
71	Services during AMC:	18 of 19	<input type="checkbox"/> Any instance / deployment within 100km (shortest road distance) radius CTR shall be 24 hours for greater than 100km it would be 48 hours. Reference point shall be SGL HO Gandhinagar.	Any service to be deployed on site must be performed within 2 days of the issue or 3 days of the issue depending on the distance of the site from the SGL HO i.e. within 100 kms or beyond, respectively. Please confirm.	Tender conditions prevail
1	Unpriced SOR	-	Supply, installation(erection), Testing and Commissioning Communication/Power cable as per tender specifications - 1000	Bidder understands that the total quantity for communication/power cable for 60 locations is 1000mtrs. Please confirm.	based on individual site requirements, max quantity is 1000mtrs, payment shall be done on actual consumed basis
2	Unpriced SOR	-	Supply, installation(erection), Testing and Commissioning Solar Panel, Modular Battery, Charge Controller and associated accessories as per tender specifications - 45 Nos.	Please confirm the input supply at the 15 locations where solar panel is not required.	12V DC
3	Technical Volume -II	2. SCOPE OF WORK	Supply of power backup system wherever is required.	Please confirm whether UPS is required at all the locations where Solar Panel is not available. Also confirm scope of UPS supply	UPS is not envisaged
4				Bidder shall take care of Communication between RTU and FC/EVC, but OEM support from FC/EVC side to establish connectivity shall be required, hence OEM shall be required at the time of communication establishment. Please confirm	FC/EVC installed are supporting Modbus Open protocols, rest is in bidder scope
5				Please provide the location name of each station.	Refer attached annexure
6			90% Payment against supply, installation, testing, commissioning, including commencement of AMR readings 10% payment against receipt of all related documents, certificates and receipt of undisputed invoice after 30 days from the commencement of AMR readings.	90% Payment of invoice value shall be released on receipt and acceptance of material at site. 10% of invoice value shall be released on completion of Installation, testing and commissioning. In case Installation, Testing and Commissioning could not be executed within 120 days from the date of receipt of material at site/Store, due to reasons solely attributable to Owner/Sabarmati Gas, the payment due on completion of installation, testing and Commissioning shall be released against submission of equivalent amount of BG.	Tender conditions prevail

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List of installations with Flow computer

Sr No	Name	Type	Make	Model	Installation	Model	Make	JB Availability	Power Source Availability	Modem
1	Sadiya	Turbine	Rockwin	G160	Above Ground	G400	FB107	Yes	Yes	Yes
2	Kathwad	Turbine	Rockwin	G 400	Above Ground	Bristol babcock	Yes	Yes	Yes	Yes
3	Gadhoda	Turbine	Iron	G 400	Above Ground	Bristol babcock	Yes	Yes	Yes	Yes
4	Gadhoda(modasa line)	Turbine	Rockwin	G160	Above Ground	FB107	Yes	Yes	Yes	Yes
5	Mubarakpur	Turbine	Rockwin	G160	Above Ground	Bristol babcock	Yes	Yes	Yes	Yes
6	Nagapur	Turbine	RMG	G 400	Above Ground	Bristol babcock	No	Yes	Yes	Yes
7	Sedrana	Turbine	RMG	G160	Above Ground	Bristol babcock	Yes	Yes	Yes	Yes
8	Ambavapura	Turbine	Iron	G400	Above Ground	Bristol babcock	Yes	Yes	Yes	Yes
9	Santej	Turbine	Iron	G160	Above Ground	Bristol babcock	Yes	Yes	Yes	Yes
10	Kalol Tesapura SGL	Turbine	Rockwin	G160	Above Ground	Bristol babcock	Yes	Yes	Yes	Yes
11	Linch SGL	Orifice	Fairflow Baroda SGL	ID:48.88mm	Above Ground	FB2100	No	Yes	Yes	Yes
12	Kalyal SGL	Orifice	Fairflow Baroda SGL	ID:46.49mm	Above Ground	FB2100	No	Yes	Yes	Yes
13	Hansapur	RPD	Iron	G-65	Above Ground	FB 107	Yes	Yes	Yes	Yes
14	Linch GDU				Above Ground	FB107	No	Yes	Yes	Yes

List of Installations with EVC-DRS

Sr. No	DRS Name	Location	Tap off	Installation	Model	Make	Type	Class	FC-EVC Make	JB Availability	Power Source Availability	Modem Availability
1	Ambapur Mother Dairy DRS	Gandhinagar	Ambapur	Above Ground	G400	RMG	Turbine	150	Iron	NO	NO	NO
2	Simandar City DRS	Gandhinagar	Ambapur	Above Ground	G100	Iron	RPD	300	NA	NO	NO	NO
3	Khoraj DRS	Gandhinagar	Ambapur	Above Ground	G65	Rockwin	Turbine	300	ADEC	YES	NO	NO
4	Palaj DRS	Gandhinagar	Ambapur	Underground	G250	Romet	Turbine	150	NA	NO	NO	NO
5	Dehgam DRS	Dehgam	Ambapur	Underground	G400	RMG	Turbine	150	Iron	NO	NO	NP
6	Santej DRS	Santej	Santej	Above Ground	G160	Iron	Turbine	300	BE	YES	YES	YES
7	Railwara DRS	Kalol	Kalol Tesapura	Above Ground	G250	Elster	Turbine	300	Iron	YES	YES	YES
8	Kalol GIDC	Kalol	Kalol Tesapura	Above Ground	G160	Rockwin	Turbine	150	Iron	YES	YES	YES
9	Mubarakpur DRS	Mansa	Mubarakpura	Above Ground	G100	Iron	RPD	300	Iron	YES	YES	YES
10	Mansa DRS	Mansa	Mubarakpura	Underground	G250	Rockwin	Turbine	150	Iron	NO	NO	NO
11	Vijapur DRS	Vijapur	Mubarakpura	Above Ground	G65	Iron	RPD	300	Iron	NO	NO	NO
12	Vihar DRS	Vijapur	Mubarakpura	Above Ground	G65	Iron	RPD	300	Iron	YES	YES	YES
13	Majara DRS	Prantij	Sadiya	Above Ground	G100	Iron	RPD	300	Iron	YES	YES	YES
14	Prantij DRS	Prantij	Sadiya	Underground	NA	NA	Turbine	NA	NA	NO	NO	NO
15	Talod DRS	Talod	Sadiya	Underground	G650	Rockwin	Turbine	150	Iron	NO	NO	NO
16	Kathwad DRS I	Himmatnagar	Sonasan	Above Ground	NA	NA	Turbine	NA	NA	NO	NO	NO
17	Kathwad DRS II	Himmatnagar	Sonasan	Above Ground	G650	RMG	Turbine	150	ITRON	Yes-Plastic	YES	YES
18	Gadhoda DRS (downstream)	Himmatnagar	Gadhoda	Above Ground	G650	sick	USM	150	elgas nrite/core	Yes-Plastic	YES	YES
19	Oracle DRS	Himmatnagar	Gadhoda	Above Ground	G160	Rockwin	Turbine	300	ITRON	YES	YES	YES
20	Idar DRS	Idar	Gadhoda	Above Ground	G250	RMG	Turbine	150	ITRON	YES	YES	YES
21	Dhandha DRS	Himmatnagar	Gadhoda	Above Ground	G100	Iron	RPD	300	ITRON	Yes-Plastic	YES	YES
22	Modasa DRS	Modasa	Gadhoda	Above Ground	G100	Iron	RPD	300	ITRON	YES	YES	YES
23	Talod DRS 2	Talod	Sadiya	Above Ground	G100	Rockwin	Turbine	300	Iron	NO	NO	NO
24	Bhat DRS	Gandhinagar	Ambapur	Above Ground	G100	Iron	RPD	300	Iron	YES	YES	YES
25	Kadi GIDC DRS	Kadi	Kadi Ambavapura	Above Ground	G250	Rockwin	Turbine	300	Iron	No	Yes	No
26	Chaitral DRS	Mandali	Kadi Ambavapura	Above Ground	G250	Rockwin	Turbine	300	Iron	No	Yes	No
27	Heavy Metal DRS	Mandali	Kadi Ambavapura	Above Ground	G160	RMG	Turbine	300	Iron	No	No	No
28	Morkhya DRS	Mandali	Kadi Ambavapura	Above Ground	G160	Rockwin	Turbine	300	Iron	No	Yes	No
29	Mandali DRS(1st stream)	Mandali	Kadi Ambavapura	Above Ground	G400	Rockwin	Turbine	150	Iron	No	No	No
30	Mandali DRS(2nd stream)	Mandali	Kadi Ambavapura	Above Ground	NA	NA	Turbine	NA	NA	No	No	No
31	Mandali DRS (Main stream)	Mandali	Kadi Ambavapura	Above Ground	G100	Iron	RPD	300	Iron	No	No	No
32	Kayal DRS(Inlet)	Mandali	Kadi Ambavapura	Above Ground	G250	Rockwin	Turbine	300	Iron	No	Yes	No
33	Kayal DRS(Outlet)	Mandali	Kadi Ambavapura	Above Ground	G160	RMG	Turbine	150	Iron	No	Yes	No
34	Nagapur DRS	Mehsana	Mehsana	Above Ground	G250	Rockwin	Turbine	300	Iron	No	Yes	No
35	Balol DRS	Mehsana	Mehsana	Above Ground	G100	Rockwin	Turbine	300	Iron	Yes	No	No
36	Dudhsagar	Mehsana	Mehsana	Above Ground	G65	Iron	RPD	300	Iron	No	No	No
37	Unjha DRS	Unjha	Mehsana	Above Ground	G65	Rockwin	Turbine	300	Iron	No	No	No

38	Visnagar DRS	Visnagar	Mehsana	Underground	G250	Rockwin	Turbine	150			No	No
39	Vachnagar DRS	Visnagar	Mehsana	Above Ground	G65	Ittron	RPD	300	Ittron	Yes-Pastic	Yes	Yes
40	Sedrana DRS	Sedrana	Sedrana	Above Ground	G65	Ittron	RPD	300	Ittron	Yes-Pastic	Yes	Yes
41	Patan DRS	Sedrana	Sedrana	Above Ground	G100	Ittron	RPD	300	Ittron	Yes-Pastic	No	Yes