

MAHARASHTRA STATE ELECTRICITY DISREIBUTION CO. LTD. Chief Engineer, Materials Management Cell,

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Date: 15.03.2019

MMC/T-NSC-03/0219/7479

CLARIFICATION TO QUERIES - [PART-II]

Sub: Tender for Supply, installation and FMS activity for LT AC Single Phase 10-60A Smart (Postpaid/Prepaid) Static Energy Meter with enclosure against tender no. MMC/T-NSC-03/0219.

----- Clarification regarding queries received thereof.

A) HPL Power & Electric Limited:

I] Commercial Queries:

Sr.	Particulars	Query received	MSEDCL Remark
No.	(Clauses of RFP/Technical Specification)	sixuaghes set who to yelldanes note	davarano odT
1	QUALIFYING REQUIREMENT Cl. No. 2.4 (II) Bidder must meet the qualifying requirements of both meter manufacturer & system integrator (AMI solution provider) individually and in case of consortium collectively by the members of consortium, except where Specifically mentioned.	Meter Manufacturer is individually participating in this Tender.	Not Acceptable.

II] Technical Queries:

Sr. No.	Particulars (Clauses of RFP/Technical	Query received	MSEDCL Remark
	Specification)	water seems of rag or	instantaneous parameters (
1.	Communication Module: Clause No. 4.05(Pg. No. 85 of 141)	We request you to kindly accept the Meters with Plug in type	Refer modified technical
	The meter shall be provided with in-built communication module(6LoWPAN LPRF or GSM/GPRS or NB-IOT or LoRa or PLC)capable of establishing wireless communication with external entities such as Prepaid server, Head End System, DCU etc.	also in line with IS:16444 Standards. As per IS: 16444 Standards Meter shall have in-built / Plug-in	"The meter shall be provided with in-built/plug-in type communication module (6LoWPAN LPRF or GSM/GPRS

4e3 s	Chief Engineer, Materials Management	Scott self.	Prepaid server, Head End System, DCU etc".
2.	Communication module: Clause No. 4.05 (Pg. No. 85 of 141 A push button shall be provided for scrolling the parameters in Alternate Display (On Demand) mode as well as for crediting emergency credit units in the meter as brought out elsewhere in the specification.	We request you kindly remove the requirement of Crediting emergency Credit Units in the Meter. As per IS 15959(Part-2) the OBIS code for emergency credit information is not available from HES. Hence same shall not be transferred from HES to Meter.	Accepted. Refer modified technical specifications. Clause No. 6.14 is modified as below. "A push button shall be provided for scrolling the parameters in Alternate Display (On Demand) mode."
3.	COMMUNICATIONCAPABILITY Cl. No. 6.35 (Pg. No. 85 of 141) The communication capability of the meter shall be based on in built communication module (6LoWPAN LPRF or GSM/GPRS or NB-IOT or LoRa or PLC) and hardware port compatible with RS 232 specifications (4 pin RJ - 11).	The RS-232 Communication Port shall be available only for configuration of communication module and not for DLMS communication. So, we request you kindly accept the same. As per IS 16444(Part-1) Standards only Optical Port &In-Built Plug-in module Communication Ports are required for DLMS communication.	Accepted. Refer modified technical specifications. Clause No. 6.35 is modified as below. "The communication capability of the meter shall be based on in built communication module (6LoWPAN LPRF or GSM/GPRS or NB-IOT or LoRa or PLCor any other communication technology proposed by the bidder) and an optical port complying with hardware specifications detailed in IEC – 62056 – 21."
4.	COMMUNICATIONMODULE: Cl. No. 6.35.1 (3)(Pg. No. 85 of 141): Communication module should push continuously instantaneous parameters (as per clause No. 15.03) to prepaid engine running on prepaid server located at MSEDCL data center.	We request you to kindly	No modifications required *
5.	COMMUNICATIONMODULE: Cl. No. 6.35.2(Pg. No. 86 of 141): The choice of communication module and technology should be based on technical feasibility best suited for given geographical area.	We understand that these Meters are for 10 different Towns in MSEDCL and Bidder has option to choose. The different Communication Solution depending on feasibility. We request you to kindly confirm.	No modifications required. Clarification: Bidders have to come up with their own solution by selecting different communication technologies given in technical specifications.
6.	GPRS COMMUNICATION MODULE Cl. No. 6.35.9 (i)(Pg. No. 86 of 141) The meter should have	We request you to kindly accept Tender Sample Meters with 2G	No modification required.

	4Gcommunicationmodule. The 4Gmodule should have facility to fall back to 2G and 3G networks, where 4G network is not available.	Communication Module. However, 4G functionality shall be provided in before the commencement of supply in the event of order placed on us.	10T/6LoWPANLPRE/LoRa) FMS activity viz. Establis and maintenance communication between and server, Application Communication (Data +SMS)
7.	GPRS COMMUNICATION MODULE Cl. No. 6.35.9 (ii)(Pg. No. 86 of 141) The module should support both Data and SMS transmission. It should have GSM,GPRS/EDGE and 4G LTE features.	We request you to kindly Remove the GSM requirement from the technical specifications. Since GSM is obsolete technology, GSM CSD services is not be available in4G Module. However, it shall be available in 2Gmodules.	No modifications required Clarification: GSM CSD service is not mentioned in the technical specifications.
8.	MODULE Cl. No. 6.35.9 (iii): (Pg. No. 86 of 141): There should be provision to insert SIM card externally. The SIM slot should have adequate sealing arrangements.	Meter shall be provided with Plug-in Type GPRS Communication Module which shall have separate Sealing arrangement in line with IS16444 Standards. We request you to kindly accept the same.	Accepted.
9.	GPRS COMMUNICATION MODULE Cl. No. 6.35.9 (v) (a) (Pg. No. 87 of 141) The module should be capable of establishing wireless communication with external entities such as Server, Head End System, DCU etc.	We request you to kindly delete the DCU from thisclause.DCU is not required in case of GPRS /4G Communication Module where Meter can directly communicate with the Server.	Refer modified technical specifications. Clause No. 6.35.9 (v) (a) is modified as below. "The module should be capable of establishing wireless communication with external entities such as Server, Head End System etc. The communication should be bidirectional i.e. from meter to external entity and from external entity to meter."
10.	GPRS COMMUNICATION MODULE Cl. No. 6.35.9 (iii) (g): (Pg. No. 87 of 141): The module should autoconfigure itself, after insertion of SIM card.	We request you to kindly remove the requirement of auto-configuration from specs. This is because VPN SIMs have specific APN name& it cannot be detected automatically.	No modifications required Clarification: APN details will be provided to successful bidder.
11.	INTRODUCTION Cl. No. 1.2(Pg. No. 2 of 141) Objective: The main objective is to provide supply and installation of 10-60 A Smart Meters with communication module (GSM/GPRS/3G/4G/PLC/NB-	Kindly clarify whether only integration is to be done with existing MSEDCL MDAS System/Data Centre? Or Supply of Server/PC and Backhaul connective	No modification required. Clarification: Refer clause No. 12.01 of technical specifications.

ook odd	IOT/6LoWPANLPRF/LoRa) and FMS activity viz. Establishment and maintenance of communication between meter and server, Application Server, Communication (Data +SMS), prepaid metering solutions & Training etc.	is also in Bid scope? In case if Server is to be established? alternatively can Bidder opt for Cloud Services? Kindly specify the complete IT Hardware Configuration. Whether MSEDCL shall provide required Office Space, Infrastructure, Power Supply and A C etc for establishment of Data Centre and Data Recovery?	**Commodule should have Escaled back to 20 and 30 a
12.	SCOPE OF WORK: Cl. No. 2.1.1 (iv) (e)(Pg. No. 4 of 141) Communication connectivity scope: Supports report server integration	We request you to kindly elaborate the requirement	No modifications required. Clarification: Features of MSEDCL MDA system are given under clause No. 2.1.1 (vi) (e).
13.	SCOPE OF WORK: Cl. No. 2.1.1 (iv) (f): (Pg. No. 4 of 141) Communication connectivity scope: The system is scalable and integration with other applications of MSEDCL.	Please specify the System approximate Scalability requirement in terms of Meter numbers. This will help us in assessing Server sizing and IT requirement	No modifications required. Clarification: Features of MSEDCL MDA system are given under clause No. 2.1.1 (vi) (e).
14.	SCOPE OF WORK Cl. No. 2.1.1 (iv) (Pg. No. 3 of 141) :Communication connectivity scope: In such cases the bidder should read the meter data through optical port and the downloaded data should be uploaded to prepaid application. No payment shall be made by MSEDCL for meters downloaded through optical port. Any failure to meet this requirement shall attract penalty as per SLA with bidder for maintenance & support during warranty and FMS periods. SCOPE OF WORK: Cl. No. 2.1.4 (Pg. No. 5 of 141) Separate charges will be paid for the reading received through HHT/Mobile Application. SLA is applicable to bidder for downloading smart Meters. (SLA is attached in Annexure-VIII). Penalty is applicable as per SLA for readings not downloaded through AMR	These 2 clauses are contradictory in terms of payment against Manual reading through Mobile HHU. We request you kindly also accept Manual Meter Reading using Mobile HHU with inbuilt GPRS communication for SLA and FMS Reading Payment as Data will be directly uploaded on to MSEDCL System in line with your specifications clause 2.1.4 (Page No. 5 of 141)	Clause No. 2.1.4 is modified as below. "No charges will be paid for the reading received through HHT/Mobile Application"

15.	SCOPE OF WORK: Cl. No. 2.2 (vi): (Pg. No. 7 of 141) Project Deliverables: Web based data collection software should be handed over to MSEDCL along with source code with documentation. TECHNICALSPECIFICATION Cl. No. 12.07(Pg. No. 97 of 141) The bidder shall hand over the source code ofweb based prepaid application to MSEDCL along with necessary credentials, documentation and training. TECHNICAL SPECIFICATION Cl. No. 13.06(Pg. No. 97 of 141)	Kindly elaborate the requirement / necessity of source code. However, suitable API's & related services can be facilitated. We request you to kindly accept the same.	No modifications required.
	The bidder shall hand over the	AT MET TEMPORE AND THE	THE CONTROL PROPERTY MANY
	source code of prepaid engine to	Street Street	Maria San Maria Para Carattata
	MSEDCL along with necessary	A tille notherner i	
	credentials, documentation and training.		
16.		We would request you to	No modifications required.
	(Pg. No. 4 of 141)	revise the Technical	
	Meter Data Downloading:	Specification in line with	A. 17 - Wild Am Control of Aut 17
	Daily at every 15 minutes interval	that of SLA requirements	to person est and by views of
	and also on demand	for one reading in a day	the be exertised by other
	SCOPE OF WORK Cl. No. 2.1.6	as mentioned your specifications (i) Clause	Purchaser for the decesion
	(Pg. No. 6 of 141) Web based data collection	No. 2.1.6 (Page No. 6 of	and sear thing to come of
	software: Reading program for	141) and (ii) ANNEXURE	senteded. The *quelity of the
	every PC will be declared by the	- III, SERVICE LEVEL	EPRESTORY - SERVICES I
	concerned sub-division office in	AGREEMENT FOR SMAR	ACA TANAMARINA L
	the beginning of each month. Daily	PREPAID / POSTPAID	PETERATION ALEXANDE
	meter data should be made available in data collection	METERS (Page No. 126 of 141).	nempto 1 of FE to 351 of 1
	software.	111	people's self-unsurerigh
	ANNEXURE – III, SERVICE LEVEL		See Select Millery Cl. 2. A. L.
	AGREEMENT FOR SMAR PREPAID		2 The state of the
	/ POSTPAID METERS(Page No.	The state of the s	a betime still to nucletub
	126 of 141) Sum of intervals for which billing		belowing perduct ASS, birth
	data is downloaded through	MASS - Mile paquent you will	SHERWING VAN GROWN DVID HEEL SOS
	communication module in a	Me will am I become the UC	On 273 (10) (10) (10) and (11)
	month.		
17.	SCOPE OF WORK: Cl. No. 2.1.6	These 2 clauses are	No modifications required.
	(Pg. No. 5 of 141):	contradictory in terms of	all view some onlines required
	Web based data collection software: Web based access to	Data Users accessibility. We request let MSEDCL	roof typihaer releM to
	Data collection software should be	Officers (Users) to access	summa SMA dynambi
	given to all the concerned MSEDCL	Meter Data from single	rd Engston Burstonk
	staff.	source i.e. through	o sel flow appends advents
	SCOPE OF WORK :Cl. No. 2.1.6:	MSEDCL MDAS only	I hadding an hear oil
	(Pg. No. 5 of 141): Web based data	Kindly clarify and	• 1940

	collection software: Bidder may provide data collection software which will be integrated with MSEDCL MDAS and such integration should be done by bidder, before first reading received through AMR. MSEDCL users will access MSEDCL MDAS. SCOPE OF WORK Cl. No. 2.1.6: (Pg. No. 5 of 141): Access levels should be defined. Access should be given to field officers sub-division, division & corporate office.	confirm your acceptance. This will avoid confusion in difference in Data availability.	Total Market State Web and All States and All State
18.	SCOPE OF WORK: Cl. No. 2.1.7: (Pg. No. 6 of 141):The agency shall integrate Data collection software with MSEDCL MDAS, within one month, after award of contract.	Sir, practically 1 month time for integration is too short. We request you to kindly consider at least 3 to 4 months time for integration with MSEDCL MDAS.	No modifications required.
19.	Annexure VIII: SERVICE LEVEL AGREEMENT (Pg. No. 64 of 141) 1. Purpose of this Agreement The purpose of this SLA is to clearly define the levels of service to be provided by Supplier to Purchaser for the duration of this contract or until this SLA has been amended. The benefits of this SLA are to: ANNEXURE - IIISERVICE LEVEL AGREEMENT FOR SMART PREPAID/POSTPAIDMETERS (Pg. No. 125 of 141): 1. Purpose of this Agreement: The purpose of this SLA is to clearly define the levels of service to be provided by Supplier to Purchaser for the duration of this contract or until this SLA has been amended.	There are 2 separate SLAs given in Tender Document. We request you to kindly clarify which one of SLA to be followed. Please confirm To avoid any confusion at later stage.	Refer modified RFP. SLA given in Annexure-III is deleted.
20.	BILLING AND PAYMENT TERMS Cl. No. (Q) (c) (ii): (Pg. No. 50 of 141): Payment for FMS / Reading through AMR: Billing by the agency shall be done, purely on per reading basis only i.e. for no. of Meter readings downloaded through AMR within reading program declared by the concerned sub-division. No separate charges will be paid for the readings submitted through HHT.	We request you to kindly accept the use of Mobile HHT for data transfer to MSEDCL System for Payment and SLA. This is as per as per your clause No. 2.1.4 of Meter Data Downloading of Scope of Work (Pg. No. 5 of 141) i.e. Separate Payment shall be made on the successful data transfer through Mobile HHT also.	No modifications required.

BILLING AND PAYMENT TERMS
Cl. No. (Q) (c) (v)(Pg. No. 50 of
141)Payment for FMS / Reading
through AMR: The HHT/reading
instrument should be arranged by
the bidder at their own cost. No
charges will be paid for the
readings/billing data submitted
through HHT.
BILLING AND PAYMENT TERMS
Cl. No. (Q) (c) (vi)(Pg. No. 50 of
141)Payment for FMS /Reading
through AMR: Penalty is
applicable for readings not
received through AMR within
reading program as per annexure-
VIII for SLA.

Every efforts shall be made to collect Meter data online. However in some cases like network congestion/ Network down etc. which are beyond our control

B) Genus Power Infrastructures Limited:

Sr. No.	Particulars (Clauses of RFP/Technical Specification)	Query received	MSEDCL Remark
1. ·	Clause No. 6.35: Communication Capability: The communication capability of the meter shall be based on in built communication module (6LoWPAN LPRF or GSM/GPRS or NB-IOT or LoRa or PLC) and hardware port compatible with RS 232specifications (4 pin RJ - 11).	Meter will be with inbuilt comm. module & optical port. Additional RS-232 port not applicable for smart meters as per IS16444. If necessary RS-11/RJ-45 Port both should be acceptable.	Accepted. , Refer modified technical specifications. Clause No. 6.35 is modified as below. "The communication capability of the meter shall be based on in built communication module' (6LoWPAN LPRF or GSM/GPRS or NB-IOT or LoRa or PLC or any other communication technology proposed by the bidder) and an optical port complying with hardware specifications detailed in IEC – 62056 – 21".
2.	Clause No. 6.35: Communication Capability: The communication capability of the meter shall be based on in built communication module (6LoWPAN LPRF or GSM/GPRS or NB-IOT or LoRa or PLC) and hardware port compatible with RS 232specifications (4 pin RJ-11).	Whether currently the NB-lot network is available or not. What would be the case if the meters would be submitted with NB-lot	No modifications required. Clarification: If the bidder is using NB-IoT module, availability of NB-IoT service should be ensured by the bidder.

3.	Clause No. 6.35.9: GPRS communication Module: There should be provision to insert SIM card externally. The SIM slot should have adequate sealing arrangements.	There should be provision to insert SIM card externally / internally. Sim slot will be inside terminal cover and sealing will be provided for Terminal cover. Please accept the same.	Accepted.
4.	Clause No. 6.35.15: RS232 Connectivity: Meter should have a hardware port compatible with RS 232 specifications (4 pin RJ - 11) which shall be used for local data downloading. Sealing arrangement for RS 232 port as required shall be provided. This port shall support the default and minimum baud rate of 9600bps. Necessary chord for RS232 port of minimum length of 1 Meter shall be provided free of cost. The meter side pin configuration of 4 pin RJ-11 port should be as follows: PinNo Signal RTS (Ready To Send) Ground (GND) Transmit Data (Tx) 4 Receive Data (Rx)	Meter will be with inbuilt comm module & optical port. Additional RS-232 port not applicable for smart meters as per IS16444. if necessary RS-11/RJ-45 Port both should be acceptable.	Accepted. Clause No. 6.35.15 is deleted.
5.	Clause No. 12.05 Web based application: The prepaid application shall create one single file for the uploaded billing data, in ASCII format or XML file as per MIOS for individual meter reading. The billing data format is as follows: i. Reading captured from prepaid meters shall be submitted in one line per meter reading in following format for billing. Parameter Length Position Remark Record Type 4 Char 01-04 PP01/PP03 Consumer Number 12 chars 05-16 Left Padded with zeros (0) Make Code 5 chars 17-21 Shall be provided to successful bidder by MSEDCL. Meter ID(Serial No) 8 chars 22-29 Left Padded with zeros (0) Current Reading date 8 chars 30-37 DDMMYYYY format Current kWh reading 8 chars 38-45 Left Padded with zeros (0) Current KW MD 4 chars 46-49 Left Padded with zeros (0) Current KW MD date 8 chars 50-57 DDMMYYYY format Current KW MD date 8 chars 50-57 DDMMYYYY format Current KW MD date 8 chars 50-57 DDMMYYYY format Current KW MD time 4 chars 58-61 HHMI format	Billing format as per specs shall be available on order supply. Please accept the same.	Accepted.

**	ii. Last Line in bill string (Meter Reading) file, will be the check sum logic output as follows: Character 1 to 4 (4 characters): will be (PPT1/PPT3). (Refer table of record types) Character 5 to 12 (8 characters): Count of Meter Serial Number, left padding by 0. Character 13 to 28 (16 characters): Sum of KWh of all above meters. Total length will be 16, left padding with 0. Character 29 to 36 (8 characters): Sum of KW MD, total length will be8, left padding with 0. Character 37 to 61 (25 characters): All zeros. iii. Table of Record Type Source Type Record Type Prefix Required Prepaid Single Phase Data PP01		
	Prepaid Single Phase Control Record PPT1 Prepaid Three Phase Data PP03 Prepaid Three Phase Control Record PPT3		
6.	Clause No. 12: Web based application Page 27: Mobile App: Prepaid application functionality should also be provided through mobile application working on android OS, Windows OS, iOS. Prepaid functionalities such as prepaid recharge, view existing balance, daily usage etc. should be incorporated in Mobile App in line with MSEDCL Consumer mobile application. Consumer should be able to view information related to consumption, recharges done, balance available etc. through mobile application. Also alerts, notifications or messages should be given to consumer through mobile application.	Mobile app with all required features will be supplied with order supply. Please accept the same	Accepted.

The RFP and Technical Specifications are amended accordingly.

Chief Engineer [MM Cell]