MAHAVITARAN
Maharashtra State Electricity Distribution Co. Ltd.
[A Govt. of Maharashtra Undertaking]
CIN: U40109MH2005SGC153645

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.
Chief Engineer, Materials Management Dept.,
Plot No. G-9, 1ST Floor, Prakashgad, Prof. Anant Kanekar Marg,
Bandra (East), Mumbai-400051.
Phone: (O) 9122-26474211 / 26472131, (P) 26473139,
E-mail: cemmcmsedcl@mahadiscom.in, cemmcmsedcl@gmail.com
Website: http://www.mahadiscom.in

No. MMD/T-NSC-06/1020/23515 **Date: 29.12.2020**

AMMENDEMENT TO REPLY OF PRE BID QUERIES

To,

All firms.

Sub: Procurement of 4G Intelligent AMR Modems against tender MMD/T-NSC-06/1020, Techno-commercial bid due for opening on 30.12.2020 on e-tendering basis.

--- Clarification to the queries raised during Pre-Bid Meeting.

Ref: This office letter vide no. MMD/T-NSC-06/1020/23284 dtd. 28.12.2020

Dear Sirs,

The Pre-Bid Meeting of subject tender MMD/T-NSC-06/1020 for procurement of 4G Intelligent AMR Modems was held on 19.11.2020. The clarification to the queries raised by the bidders was issued by this office letter dtd. 28.12.2020 under ref.-2 is hereby revised as per the attached herewith Annexure - 'A' (Commercial) and Annexure – 'B' (Technical).

Further treat the earlier issued clarifications vide letter dtd. 28.12.2020 under ref.-2 as cancelled.

Yours faithfully,

Sd/-
Chief Engineer (MMD)

Copy s.w.rs. to:

i) Director (Operations), MSEDCL, Mumbai.
ii) Executive Director (O&M) / (B&R), MSEDCL, Mumbai.

Copy f.w.cs. to:

i) Chief Engineer (Testing & QC), MSEDCL, Mumbai.
ii) C.G.M.(IT), MSEDCL, Mumbai

Copy to:
Supdt. Engineer (MSC), MSEDCL, Mumbai

ANNEXURE – 'A' (Commercial Queries)
Procurement of 4G Intelligent AMR Modems
against tender MMD/T-NSC-06/1020

Sr. No.	Tender Clause No.	Tender Clause	Queries / Suggestions	Clarification
1	I of Instruction to the Bidders (Section-I)	The quantity for procurement is 24,200 Nos. The Actual Quantity of Modems that will be procured may vary depending upon the site requirement. The Quantity mentioned as above against various capacities can undergo change. However, the Minimum Assured Quantity for procurement shall be 50% of the total tendered quantity as mentioned above.	Unit Price of Modem to be quoted depends on tendered quantity and hence we request you to confirm Quantity for procurement with maximum 10% reduction OR provide additional line item in Price Schedule for 50% of the total tendered quantity.	No change in condition. The quantity proposed for procurement against subject tender is 24,200 Nos.
2	II of Instruction to the Bidders (Section-I)	All qualifying requirements shall be met by a single company / firm. No joint venture or consortium is allowed. Bidder	to allow JV in this tender so that a suitable partnership of Technical and financial partner JV can be formed to service this requirement.	No change in condition. It is mandatory requirement of tender.
3	II of Instruction to the Bidders (Section-I)	Documentary evidence (for e.g. SSI/NSIC Certificate) for manufacturing capacity to cover the quantity offered by the bidder and considering orders in hand.	What documents are to be submitted for this requirement?	No change in condition. MSME firms required to submit SSI/NSIC certificate wherein it is mentioned that the firm is manufacturer of Modems / AMR equipments.
4	II (1) of Instruction to the Bidders (Section-I)	The offers of only original manufacturers of Modems shall be accepted against the Tender. Traders, Dealers & distributors bidding will not be considered.	To increase participation and effective execution, we request MSEDCL to allow Traders, Dealers, Distributors & System Integrators to participate in the Tender with Authorization from OEM of Modem.	No change in condition. The offers of only original manufacturers of Modems shall be accepted against the Tender. Traders, Dealers & distributors bidding will not be considered.
5	II (5) of Instruction	The average annual turnover during the last	to kindly allow startups with lower turnover criteria as this	No change in condition.

	to the Bidders (Section-I)	three financial years shall be minimum 4 Crores.	would only help in selection of best technically available solution.	It is mandatory requirement of tender.

Sr. No.	Tender Clause No.	Tender Clause	Queries / Suggestions	Clarification
6	II (6) of Instruction to the Bidders (Section-I)	The bidder should have experience of either of the following : a) Three completed work orders costing not less than 5.5 Crores OR b) Two completed work orders costing not less than 7 Crores OR c) One work order costing not less than 11 Crores.	To relax experience criteria for startup companies.	No change in condition. It is mandatory requirement of tender.
7	VI of Instruction to the Bidders (Section-I)	Sample shall be suitably packed in order to avoid damage during transit or handling. In case, the **sample meters** found damaged, it shall be the bidder's sole responsibility. Therefore, bidders should ensure that the meters packed are intact.	We understand the requirement is modem here not meter.	The clause may be read as under : Sample shall be suitably packed in order to avoid damage during transit or handling. In case, the **sample modems** found damaged, it shall be the bidder's sole responsibility. Therefore, bidders should ensure that the modems packed are intact.
8	VII (i) of Instruction to the Bidders (Section-I)	The scheduled delivery period is 4 months from the letter of award.	To enhance schedule delivery period to 6 months.	No change in condition. Scheduled delivery period will be 4 months from the date of letter of award/AT.
9	VII (vii) of Instruction to the Bidders (Section-I)	MSEDCL may instruct the supplier to withhold entire or part of monthly supply of material for a specified period by giving two months advance instruction.	To limit Quantity Reduction to 10% of PO Quantity, Deferment in PO delivery schedule should not be more than one month.	No change in condition. It is standard tender condition of MSEDCL.
10	VIII (C) of Instruction to the	Factory address, from which the bidder intends to supply the material	We request that our contract manufacturers factory be approved in our vendor	No change in condition. It is standard tender

	Bidders (Section-I)	against the tender, shall be as indicated in the latest approved on line vendor registration form on e-tendering through which the vendor is submitting the offer.	registration.	condition of MSEDCL. Bidder should have its own manufacturing unit.

Sr. No.	Tender Clause No.	Tender Clause	Queries / Suggestions	Clarification
11	XIV of Instruction to the Bidders (Section-I)	Regarding submission of BIS License Certificate along with offer	BIS License is not applicable for Modems	Accepted. BIS License is not applicable for Modems
12	XVIII (B) of Instruction to the Bidders (Section-I)	.... quantity allocation will be at the sole discretion of MSEDCL.	Please confirm minimum % Qty. that a bidder (other than one doing trial orders) will get.	No change in condition. It is standard tender condition of MSEDCL and self explanatory.
13	XIX of Instruction to the Bidders	The bidder should pay the Earnest Money @ 0.50% (Half Percent) value of the offered quantity of Tender in the form of BG	Hon'ble Finance Minister, Govt. of India during Atmanirbhar Bharat 3.0 stimulus package declared that EMD not required to bid tenders and will be replaced by bid security declaration.	Till receipt of new notifications issued by Govt. of India the existing criteria mentioned in Cl. XIX of Instruction to the Bidders shall remain applicable.
14	6 (ii) of Conditions of Tender & Supply (Section-II)	The Purchaser reserves its right to change the delivery schedule of the contract either by reducing the monthly lot up to 60% of the agreed lot or by increasing the same up to 120% of the agreed lot with prior two months' notice and the Purchaser shall not be liable to pay any compensation / damages on account of such change in delivery schedule.	To limit Quantity variation to 10% of PO Quantity.	No change in condition. It is standard tender condition of MSEDCL.
15	6 (iii) of Conditions of Tender & Supply	The Purchaser reserves its right to defer the balance supply to be received against the	Deferment in PO delivery schedule should not be more than one month.	No change in condition. It is standard tender condition of MSEDCL.

	(Section-II)	order by giving two months' notice for a maximum period of 6 months. In such an event, the delivery period for the deferred material shall be deemed to be extended proportionate to the period of deferment and the Purchaser shall not be liable to pay any compensation/ damages on account of such deferment of deliveries.		

Sr. No.	Tender Clause No.	Tender Clause	Queries / Suggestions	Clarification
16	15 of Conditions of Tender & Supply (Section-II)	After successful RST of supplied each lot, store in charge will generate final SR note through ERP system within 7 working days from receipt of material at stores.	To inform Qty of Modems requiring Sample Testing for each consignee and supplier will provide test certificate to the consignee for required quantity so that RST can be obviated	No change in condition. It is standard tender condition of MSEDCL.
17	16 (c) of Conditions of Tender & Supply (Section-II)	To make payment to Micro, Small and Medium Enterprises, within 45 days from date of submission of invoice & documents for entire lot. However, no claim for interest on delay payment will be Entertained. The MSME who are ready to accept this payment term may only quote.	To make 50% advance payment to vendor as a commitment of Quantities to be procured.	No change in condition. It is standard tender condition of MSEDCL.
18	19 of Conditions of Tender & Supply (Section-II)	a) Guarantee period of Modem is 66 months from receipt at Stores Centre or 60 months from date of commissioning, whichever is earlier. b) In case of failure of material within the above guarantee period, tenderer shall make available other	a) To & fro transport charges for the Modems failed within guarantee period to be borne by MSEDCL. b) Guarantee Period shall be applicable for lot of Modems to be supplied against LOA. Apart from repairing time, to & fro transit time is also included in outage period. Hence, we	No change in condition. It is standard tender condition of MSEDCL.

		new conditioned / repaired material, free of cost at stores for replacement within 45 days from the date of intimation from stores and lift the failed material for repair rejected material after replacement. c) The outage period, i.e. the period from the date of failure till unit is repaired / replaced shall not be counted for arriving at the guarantee period.	request MSEDCL to remove the clause.	

Sr. No.	Tender Clause No.	Tender Clause	Queries / Suggestions	Clarification
19	21 of Conditions of Tender & Supply (Section-II)	In case the materials are not delivered within the period stipulated in the order, the supplier shall be liable to pay at the discretion of the competent authority of the Purchaser, the liquidated damages to the Purchaser @ 1% per week or part of week on the value of delayed material / unexecuted quantity plus taxes as applicable, if any on the price subject to a maximum of cumulative ceiling of 10% reckoned on the contract value of such complete portion or section of the plant, equipment....	To amend the Liquidated Damages for Late Delivery @ 0.5% per week or part of week on the value of delayed material / unexecuted quantity plus taxes as applicable, if any on the price subject to a maximum of cumulative ceiling of 5%.	No change in condition. It is standard tender condition of MSEDCL.
20	26.2 of Conditions of Tender & Supply (Section-II)	The contract performance deposit shall be an amount equal to 5% of the contract value in two installments.	Hon'ble Finance Minister, Govt. of India during Atmanirbhar Bharat 3.0 stimulus package declared that Contract Performance Deposit shall be an amount	Till receipt of new notifications issued by Govt. of India the existing criteria mentioned in Cl. 26.2 of Instruction to the Bidders shall remain

			equal to 3% of the contract value in two installments.	applicable.
21	28 of Conditions of Tender & Supply (Section-II)	Permanent Dispute Resolution Committee (PDRC) comprises of Chief Engineer (MM Dept.), one member of Accounts Department and representative of supplier will resolve the dispute arise if any.	If the parties have failed to resolve their dispute or difference by such mutual consultation, then the dispute shall be referred in writing by either party to initiate the Arbitration process. The arbitration shall be conducted as per provision of arbitration act i.e. Supplier & Purchaser shall appoint their Arbitrator and such appointed arbitrators shall appoint a neutral arbitrator to resolve dispute	No change in condition. The policy is self-explanatory.

Sr. No.	Tender Clause No.	Tender Clause	Queries / Suggestions	Clarification
22	30 of Conditions of Tender & Supply (Section-II)	The decision of the Purchaser shall be final as regards the acceptability of the stores supplied by the supplier and the Purchaser shall not be required to give any reason in writing or otherwise at any time for the rejection of the stores/materials.	MSEDCL to provide confirmed delivery schedule with their PO with Delivery Period as 6 Months from the Date of LOA.	No change in condition. Scheduled delivery period will be 4 months from the date of letter of award/AT.

ANNEXURE – 'B' (Technical Queries)

Procurement of 4G Intelligent AMR Modems against tender MMD/T-NSC-06/1020

Sr. No	Queries from bidders	Clarification
Bidder Name: Allied Engineering Letter No. APL/MSEDCL/2020-21/NSC-06 dated 19.11.2020		
1.	Clause No. 6: Outage Notification: In the event of an outage, the modem should be able to send SMS to server or predefined number to notify the outage event with date & time of occurrence and restoration. Outage Notification: In the event of an outage, the modem should be able to send alert data packets to the server. The Server shall send SMS to number to notify the outage event with date & time of occurrence and restoration.	Accepted. Refer modified technical specifications. Clause No. 6 will be modified as below. In the event of an outage, the modem should be able to send alert to server along with date and time of occurrence and restoration. Server will send SMS to predefined number to notify the outage event.
2.	Clause No. 8 (ii): Modem should have sufficient memory to store the meter data of minimum 45 days. The memory shall be scalable/ upgradable. Since the modem will communicate in Intelligent mode, the data of 45 days can be archived in database of the server. Therefore, the mentioned clause may be deleted as this clause is also contradictory with Clause 8(b).	Accepted. Refer modified technical specifications. Clause No. 8 (ii) will be modified as below. Modem should have sufficient memory to store the meter data of minimum 45 days, in case of non-communication with server.
3.	Clause No. 8 (iv): It should be possible to convert mode of working of modem from intelligent mode (Push mode) to transparent mode (Pull mode) and vice versa. Such conversion should be done through locally and remotely, over the air through configuration tool and through SMS. It should be possible to convert mode of working of modem from intelligent mode (Push mode) to transparent mode (Pull mode) and vice versa. Such conversion should be done through locally and remotely, over the air through configuration tool or server.	Accepted. Refer modified technical specifications. Clause No. 8 (iv) will be modified as below. It should be possible to convert mode of working of modem from intelligent mode (Push mode) to transparent mode (Pull mode) and vice versa. Such conversion should be done through locally and remotely, over the air through configuration tool or through SMS.
4.	Clause No. 8 (ix): Modem firmware should be inclusive of IS 15959:2011 (Part-I) with latest amendments (Indian standard: Data exchange for electricity meter reading, tariff and load control-companion specification). Supplier should ensure pre-loaded IS 15959:2011 (Part-I) protocol, before supply.	Accepted. Refer modified technical specifications. Clause No. 8 (ix) will be modified as below. Modem firmware should be inclusive of IS 15959:2011 (Part-I) with latest amendments (Indian standard:

	Also utility specific OBIS code defined by MSEDCL, given in annexure-I, should be supported by modem. If any new OBIS code introduced during guarantee period of modem, firmware support for such OBIS codes should be provided by bidder, without any additional cost. Modem firmware should be inclusive of IS 15959:2011 (Part-I) with latest amendments (Indian standard: Data exchange for electricity meter reading, tariff and load control-companion specification). Also utility specific OBIS code defined by MSEDCL, given in annexure-I, should be supported by modem. If any new OBIS code introduced during guarantee period of modem, firmware support for such OBIS codes should be provided by bidder, without any additional cost.	Data exchange for electricity meter reading, tariff and load control-companion specification). Supplier should ensure pre-loaded IS 15959:2011 (Part-I) protocol, before submission of samples. Also utility specific OBIS code defined by MSEDCL, given in annexure-I, should be supported by modem. If any new OBIS code introduced during guarantee period of modem, firmware support for such OBIS codes should be provided by bidder, without any additional cost.
5.	Clause No. 13 (b): Modem should support both Data and SMS transmission. It should have both GSM and GPRS/EDGE features. Modem should be 4G and also have facility to fall back to 2G/3G networks, where 4G network is not available. SMS transmission shall be done via Server hence, amended clause shall be as following: Modem should support Data transmission. It should have both GSM and GPRS/EDGE features. Modem should be 4G and also have facility to fall back to 2G/3G networks, where 4G network is not available.	Accepted. Refer modified technical specifications. Clause No. 13 (b) will be modified as below. Modem should support Data transmission. In addition, modem may support SMS transmission (optional). It should have GPRS/EDGE features. In addition, it may have GSM features (optional). Modem should be 4G and also have facility to fall back to 2G/3G networks, where 4G network is not available.
6.	Clause No. 22 Configuration through Mobile application: The bidder should provide mobile application using which it should be possible to configure the modem for various parameters like baud rate, parity, data bit, flow control and APN details with user name and Password, Server IP, Modem listening port etc. The mobile application should work on any mobile operating systems such as Android and iOS etc. The Mobile App shall verify following: · Status of GPRS activation of SIM card · Communication of Modem with HES ·Communication between Modem and Energy Meter For verification of above, Smart Mobile Phone loaded with the App shall be connected to the Modem's RS232 port through USB to RS232 Converter. Configuration Through Mobile Application shall be optional and not be mandatory. Hence the suggested clause shall be as following. "Optional Configuration Through Mobile	No modifications required. Clarification : Provision of mobile app for modem configuration is mandatory for bidder. Bidder may submit mobile app, before supply.

	Application".	
7.	Clause No. 22 Configuration over the air: It should be possible to update modem firmware remotely, over the air. Modem should support over the air configuration of parameters using SMS, like baud rate, parity, data bit, flow control, APN details with user name and Password, Server IP, Modem listening port . Modem configurations such as baud rate, parity, data bit, flow control, APN details with user name and Password, Network signal strength (CSQ),Server IP, Modem listening port, IP address of SIM, Master SIM numbers configured should be read by sending SMS to modem from any mobile phone. The SMS sent by modem should be readable in mobile phones with various operating systems e.g. Android, i-OS, Windows etc. Modem can be configured for various parameters such as baud rate, parity, data bit, flow control, APN details with user name and Password, Server IP, Modem listening port, Master SIM numbers by sending SMS to modem from master SIM. Modem should also support rebooting through SMS. SMS will be sent through master SIM only. The bidder should share set of instructions required for over the air configuration through SMS. The configuration tools including hardware / software and / or the master SIM cards, mobile application and instruction set required to configure the modem over the air should be handed over to MSEDCL and the same should be deployed at MSEDCL. Modifications required in modem firmware, modem configuration utility, mobile application should be done by the bidder, free of cost, during guarantee period. It should be possible to update modem firmware remotely, over the air. Modem should support over the air configuration of parameters using SMS, like baud rate, parity, data bit, flow control, APN details with user name and Password, Server IP, Modem listening port . Modem configurations such as baud rate, parity, data bit, flow control, APN details with user name and Password, Network signal strength (CSQ),Server IP, Modem listening port, IP address of SIM, Master SIM numbers configured should be read by sending SMS to modem from any mobile phone. The SMS sent by modem should be readable in mobile phones with various operating systems e.g. Android, i-OS, Windows etc. Modem can be configured for various parameters such as baud rate, parity, data bit, flow control, APN details with user name and Password, Server IP, Modem listening port, Master SIM numbers by	Query is not clear.

	sending SMS to modem from master SIM. Modem should also support rebooting through SMS. SMS will be sent through master SIM only. The bidder should share set of instructions required for over the air configuration through SMS. The configuration tools including hardware / software and / or the master SIM cards, mobile application and instruction set required to configure the modem over the air should be handed over to MSEDCL and the same should be deployed at MSEDCL. Modifications required in modem firmware, modem configuration utility, mobile application should be done by the bidder, free of cost, during guarantee period.	
Other points in letter do not pertain to IT Department.		
Bidder Name: Reliance Jio **E-mail dated 21.11.2020**		
1.	Bid Notice; Invites sealed bids from eligible bidders for procurement of 4G Intelligent AMR Modems. Amendment: Invites sealed bids from eligible bidders for procurement of 4G/NB-IoT Intelligent AMR Modems.	No modifications required.
2.	Clause I: Scope of Work The scope of work under this tender is for design, engineering (wherever applicable), manufacture, inspection & testing before dispatch, packing and supply of 4G Intelligent AMR Modems as specified in Annexure-D / Technical Specifications. Amendment: The scope of work under this tender is for design, engineering (wherever applicable), manufacture, inspection & testing before dispatch, packing and supply of 4G/NB-IoT Intelligent AMR Modems as specified in Annexure-D / Technical Specifications.	No modifications required.
3.	Clause 6: Outage Notification: In the event of an outage, the modem should be able to send SMS to server or predefined number to notify the outage event with date & time of occurrence and restoration. **Amendment**: In the event of an outage, the modem should be able to send outage message to server to notify the outage event with date & time of occurrence and restoration. Server application should be able to send the same outage message to predefined numbers.	Accepted. Refer modified technical specifications. Clause No. 6 will be modified as below. In the event of an outage, the modem should be able to send alert to server along with date and time of occurrence and restoration. Server will send SMS to predefined number to notify the outage event.
4.	Clause 8 (c) : Functionalities of modem in transparent mode (Pull mode): If modem is working in idle mode more than 10 mins, modem should close the	Accepted. Refer modified technical specifications. Clause No. 8 (c) will be modified as below.

	existing connection after 10 mins. If no data exchange or modem is in idle mode, then keeping the connection with server is waste of network resources for longer period. Suggesting suitable amendment **Amendment:** If modem is working in idle mode more than 1min, modem should close the existing connection after 1mins.	Functionalities of modem in transparent mode (Pull mode): If modem is working in idle mode more than 5 mins, modem should close the existing connection after 5 mins.
5.	Clause 9 ; Online Tamper Detection: Modem should continuously poll the meter for any new tamper and will push details of event to server and also to pre-programmed mobile numbers as an SMS alert. **Amendment:** Modem should continuously poll the meter for any new tamper and will push details of event to server and server should send this tamper to pre-defined mobile numbers as an SMS alert.	Accepted. Refer modified technical specifications. Clause No. 9 will be modified as below. Online Tamper Detection: Modem should continuously poll the meter for any new tamper and will push details of event to server. Server will send SMS to predefined number to notify the tamper event.
6.	Clause 13: Communication Capabilities: Modem should be dual band modem capable of operating at 900 & 1800 Mh GSM/GPRS transmission. Modem should support both data and SMS transmission. It should have both GPRS/EDGE features. Modem should fall back with 2G/3G. Suggestion: Modem should be capable of operating 4G/NB-IoT bands in India. Modem should support data communication of 4G / NB-IoT to transfer meter data. 2G/3G data is going to end of life in India.	Accepted. Refer modified technical specifications. Clause No. 13 (b) will be modified as below. Modem should support Data transmission. In addition, modem may support SMS transmission (optional). It should have GPRS/EDGE features. In addition, it may have GSM features (optional). Modem should be 4G and also have facility to fall back to 2G/3G networks, where 4G network is not available.
7.	Clause 17: Data Features: GPRS & EDGE features. **Suggestion:** Since modem should be capable of 4G/NB IoT, then these features are not required in the modem. Propose deletion of this clause	No modifications required.
Bidder Name: Verticross India Letter No. VIPL/ MSEDCL/2020-21/001 dated 19.11.2020		
1.	Clause No. 6: Outage Notification: In the event of an outage, the modem should be able to send SMS to server or predefined number to notify the outage event with date & time of occurrence and restoration. Instead of modem sending notifying the user, will it be ok if HES/MDAS notifies the user using SMS gateway provided by client.	Accepted. Refer modified technical specifications. Clause No. 6 will be modified as below. In the event of an outage, the modem should be able to send alert to server along with date and time of occurrence and restoration. Server will send SMS to predefined number to notify the outage event.

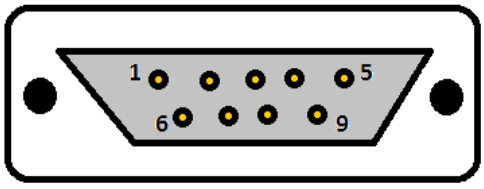
2.	Clause No. 8 (v): Other requirements: The Modem should be capable of operating with SIMs of local GSM Service provider in the area. In case of transparent modems static IP SIMs are mandatory for HES to acquire the data.	No modifications required.
Other points in the letter do not pertain to IT Department.		
Bidder Name: HPL Electric & Power Letter No. HPL/ MSEDCL/NSC-06/2020 dated 19.11.2020		
1.	Point No. 1: Please refer Clause No. 2 (d) of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 51 of 69) vide which it is mentioned that: The offered Modem should be capable to transfer the entire data of Tri-vector Meter in less than 5 Minutes after connection is made, assuming there is no disturbance like network failure/power failure etc. Our submission: Sir, the Data downloading time depends on the Data size available in the Meter and the Network conditions. When the full Data is available in the meters, the data downloading time may increase accordingly @9600 baud rate. So, you are requested to kindly accept the same.	Accepted. Refer modified technical specifications. Clause No. 2 (d) will be modified as below. The offered Modem should be capable to transfer the entire data of Tri-vector Meter in less than 5 Minutes in ideal condition at the time of testing, after connection is made, assuming there is no disturbance like network failure/power failure etc.
2.	Point No. 2: Please refer Clause No. 3 of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 51 of 69) vide which it is mentioned that: One USB cable along with cable diagram shall be provided against lot of 100 modems, for connecting PC/Laptop. Our submission: Sir, kindly amend the USB Cable to RS232 Cable there is no requirement of USB Port in Modem.	No modifications required. Clarification: Cable should have provision to connect with USB port of PC/Laptop & RS232 port of modem.
3	Point No. 3: Please refer Clause No. 8 (i) 'Other requirements' of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 51 of 69) vide which it is mentioned that: Modem should be an intelligent modem with store and forward feature. Our submission: Sir, the Data downloading through the store and forward may cause the Data alteration and Data corruption while the Data storing in the Modem. And the proprietary communication (Non-DLMS) supported Meter cannot be downloaded through the store and forward feature. The Data at the Server will not be the Real Time Data. So, you are requested to kindly remove this clause.	Refer modified technical specifications. Clause No. 8 (i) will be modified as below. Modem should have store and forward feature, while working on intelligent mode.
4	Point No. 4: Please refer Clause No. 8(x) 'Other requirements' of TECHNICAL SPECIFICATIONS OF MODEM	Accepted. Refer modified technical specifications.

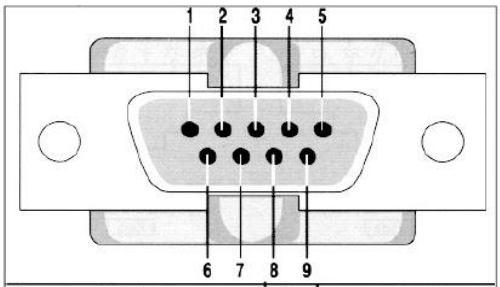
	(Page No. 52 of 69) vide which it is mentioned that: Modem should automatically detect the baud rate, parity, stop bit, flow control and other communication parameters for the meter connected and should auto configure itself for different make of meters. Our submission: Sir, the baud rate auto detection shall be possible if common data frame shall be supported by all the make of meter. So, you are request to kindly provide the common data frame supported by multiple make.	Clause No. 8 (x) will be modified as below. Modem should auto configure itself for various parameters such as baud rate, parity, stop bit, flow control etc., while connected to different makes of DLMS meters.
5.	Point No. 5: Please refer Clause No.8 (xi) 'Other requirements' of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 52 of 69) vide which it is mentioned that: Modem should configure APN settings automatically based on SIM card inserted. If meter is changed or SIM card is changed modem should auto configure itself. Our submission: Sir, kindly note that the Utility use the Private Network SIM and in VPN Network the auto configuration shall not be possible. So, you are requested to kindly accept the pre-configured APN configuration.	No modifications required. Clarification: APN details of network service providers will be informed to successful bidder.
6.	Point No. 6: Please refer Clause No. 9 'Online Tamper Detection' of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 52 of 69) vide which it is mentioned that Modem should continuously poll the meter for any new tamper and will push details of event to server and also to pre-programmed mobile numbers as an SMS alert. Our submission: Sir, kindly note that the Tamper detection shall only be possible for DLMS Meter. It shall not be possible for proprietary Meter. We request you to kindly accept the same.	Accepted. Refer modified technical specifications. clause no. 9 will be modified as below. Online Tamper Detection: Modem should continuously poll the DLMS meter for any new tamper and will push details of event to server. Server will send SMS to predefined number to notify the tamper event.
7.	Point No. 7: Please refer Clause No. 22 'Configuration through Mobile application' of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 54 of 69) vide which it is mentioned that: The mobile application should work on any mobile operating systems such as Android and iOS etc. Our submission: Sir, we shall provide widely used Android Application. We request you kindly accept the same.	Accepted. Clause no. 22, will be modified as 'Configuration through Mobile application' of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 54 of 69) vide which it is mentioned that: The mobile application should work on Android operating system of mobile. In addition, bidder may also provide mobile application on iOS operating system (optionally)

8.	Point No. 8: Please refer Clause No. 22 'Configuration through Mobile application' of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 55 of 69) vide which it is mentioned that: Communication between Modem and Energy Meter For verification of above, Smart Mobile Phone loaded with the App shall be connected to the Modem's RS232 port through USB to RS232 Converter. Our submission: Sir, kindly note that the RS232 to USB Cable connecting with Mobile is risky. It can damage the user Mobile. More over the Mobile have the function device and standard Cables are not available for same. You are requested to kindly get this data over the AIR.	No modifications required.
9.	Point No. 9: Please refer Clause No. 23 of TECHNICAL SPECIFICATIONS OF MODEM (Page No. 55 of 69) vide which it is mentioned that: Modem should meet following EMI/EMC specifications: 5. Radiated emission as per CISPR 22 6. Radiated Immunity as per IEC61000-4-3 Our submission: Sir, these above Tests are not available from Local Labs. So, we request you to kindly remove these tests from the specifications.	Accepted. Clause no. 23(5), 23(6) will be deleted.
Bidder Name: Secure Meters **Letter No. SML/MUM/MSEDCL/PG/2020/171 dated 22.11.20**		
1.	Point No.1: Scope: Supply of 4G Intelligent AMR Modem: We request you to add NBIoT along with 4G in cellular technology options. Needless to mention here that Narrowband is a futuristic technology option that provides energy and cost advantages over other access technologies. Nevertheless, we believe that with the ongoing deployment of Narrowband functionality on more networks, as well as improved seamless mobility, Narrowband will become a viable choice. We would also like to bring to your notice that NBIoT communication was part of earlier MSEDCL tender under reference no. 3 for Supply of Smart Postpaid/Prepaid Meters floated in Jun-2019. Clause: 4.05 Communication module: 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. Two way communication with external entities should be possible. Communication module and	No modifications required.

	technology should be proposed by the bidder. SCOPE: Any Integration with existing system or supply of integration software/ billing system is not in our scope.	
2.	Point No. 2 Clause no. 2: c) The modem shall be suitably protected against voltage surges (6kV voltage surges and 10kV Impulses). Required certificates issued by any Govt. Body/NABL accredited lab is to be produced in this regard. We request to accept the type test report for 6 kV impulse & surge test.	Accepted. Refer modified technical specifications. clause no. 2 (c) will be modified as below. The modem shall be suitably protected against voltage surges (6kV voltage surges and 6kV Impulses). Required certificates issued by any Govt. Body/NABL accredited lab is to be produced in this regard.
3.	Point No. 3 Clause no. 4: Sealing: - The modem cover and body should have arrangement for sealing. In addition to this, the SIM card holder cover should also have arrangement for sealing. Offered modem have compact design, cover & base are chemically welded and hence sealing arrangement for cover and body should be made optional. Sealing for sim card holder can be maintained as it is in the technical specifications.	Accepted.
4.	Point No. 4 Clause no. 5: Antenna :- The Modem should have flexible external antenna to enable placement of the antenna at the Location of strongest signal inside the Metering Cubicle. Bidders are requested to quote for antennas Having 6dBi gain with screw mount / Wall mount arrangement. Since NBIoT as a technology has higher coverage modem external Antenna will be of 3dBi will be sufficient. Request you to keep the 3dBi option for NBIoT and 6dBi can be kept for 4G.	No modifications required.
5.	Point No. 5 Clause no. 7 Battery: The modem should have in-built rechargeable, maintenance free battery having life of minimum 10 years, for sending power outage notifications as per clause No. 6. Super capacitor will not be accepted. We request you to accept Super Capacitors. The technology for rapid-fire power-ups has been around for decades in supercapacitors. Supercapacitors not only charge faster than batteries, they last longer because they don't suffer the physical toll in charging and discharging that wears down batteries. They also have a number of safety advantages. The benefits of	No modifications required.

	supercapacitors include: Balancing energy storage with charge and discharge times. While they can't store as much energy as a comparably sized lithium-ion battery (they store roughly ¼ the energy by weight), supercapacitors can compensate for that with the speed of charge.	
6.	Point No. 6 Clause no. 8 Other requirements: viii) Modem should be compatible with all types of meters including non DLMS meters, legacy version meters viz. electronic meters and DLMS meters. Protocols of legacy meters will be shared with successful bidders. In absence of non-DLMS meter protocol, if any, such meter should be downloaded by modem in transparent mode. DLMS became applicable from 2010 and since, since all Non DLMS meters have been replaced from MSEDCL Network, we request you to delete the requirement of integration of Non DLMS meter.	Accepted. Refer modified technical specifications. clause no. 8 (viii) will be modified as below. Modem should be compatible with all types of DLMS meters i.e. modem should be capable to read DLMS meter & push meter data to server. All types of non-DLMS meters should be downloaded by modem in transparent mode.
7.	Point No. 7 Clause no. 8 : Other requirements:- v) The Modem should be capable of operating with SIMs of local GSM Service provider in the area. Modem will work with any NB-IoT enabled local cellular network provider. In fallback it can work with any cellular network provider on GPRS network. Request you to delete the requirement of fall back on GSM.	No modifications required.
8.	Point No. 8 Clause no. 8: Other requirements:- Also utility specific OBIS code defined by MSEDCL, given in annexure-I, should be supported by modem. If any new OBIS code introduced during guarantee period of modem, firmware support for such OBIS codes should be provided by bidder, without any additional cost. By design modem will equipped to read the DLMS meters data as per the IS15959 specifications. MFG specific OBIS code can be added at any point of time (based on need new configuration development and testing will require). These OBIS codes can be processed by utility application only.	No modifications required. Clarification : In case of introduction of new OBIS code during the guarantee period, the development and testing of revised firmware will be required.
9.	Point No. 9 Clause no. 8: Functionalities of modem in intelligent mode (Push mode) : b) It should be possible to configure the modem for schedule to download data from meter (15 minutes/hourly/daily/weekly/monthly) through configuration tool and SMS. c) Modem should automatically download data from meter at configured intervals and this data should be stored in the modem. Also modem	No modifications required.

	should automatically establish the connection with server configured and data stored in modem should be pushed to server at configured intervals. Data collection schedule will be reprogrammable from remote and local tool. Modem will push the stored data over FTP server, there will be no direct server connection with utility application server.	
10.	Point No. 10 Online Tamper Detection: Modem should continuously poll the meter for any new tamper and will push details of event to server and also to pre-programmed mobile numbers as an SMS alert. In case of meter tamper, modem will send the events data to backend system.	Refer modified technical specifications. clause no. 9 will be modified as below. Online Tamper Detection: Modem should continuously poll the DLMS meter for any new tamper and will push details of event to server. Server will send SMS to predefined number to notify the tamper event.
11.	Point No. 11 Clause no, 13: Communication Capabilities: - a) Modem should be Dual Band modem capable of operating at 900 and 1800MH GSM/GPRS transmission. b) Modem should support both Data and SMS transmission. It should have both GSM and GPRS/EDGE features. Modem should be 4G and also have facility to fall back to 2G/3G networks, where 4G network is not available. GSM is not supported as the technology is not anymore cost viable. Offered modem will be NBIOT& fall back to 2G technology. We request you to delete the GSM requirement or can be kept optional.	Accepted Refer modified technical specifications. clause no. 13 (b) will be modified as below. Modem should support Data transmission. In addition, modem may support SMS transmission (optional). It should have GPRS/EDGE features. In addition, it may have GSM features (optional). Modem should be 4G and also have facility to fall back to 2G/3G networks, where 4G network is not available.
12.	Point No. 12 Clause no, 14 : Interface :- RS232 Pin Description:  RS232 Pin Description: Pin No Signal 1 NC 2 Receive Data (Rx) 3 Transmit Data (Tx) 4 NC 5 Ground (GND) 6 NC 7 Vcc 8 Vcc 9 Vcc	No modifications required. Clarification: If pin configuration of RS232 port of the modem is different than pin configuration given in technical specifications, bidder has to provide additional connectors.

	We have different pin configuration as under. The same may also be acceptable or option should be provided for providing additional connectors.  **Figure 3: RS-232 Pin-out Diagram**	
13.	Point No. 13 Clause no, 14: Interface :- c) The SIM interface should be a 3 V Interface in accordance with GSM 11.12 phase 2 with a retractable SIM cardholder, which should be fully inserted inside the modem. The holder Opening should have a sliding cover with provision for sealing after placing of the SIM card. SIM card holder will be push type along with the sealing arrangement.	Accepted.
14.	Point No. 14 Data Features: - i. Modem should use standard AT Command set (GSM 07.05, GSM07.07) for settings of the modem. ii. TCP/IP stack access via AT commands iii. Internet Services : TCP, UDP, HTTP, FTP, SMTP, POP3 iv. Min. Baud Rate: for GSM Operation - 1200 bits/sec v. Max. Baud Rate: for GSM Operation - 115200 bits/sec GSM is not supported as the technology is not anymore cost viable. Request you to keep it optional.	Accepted. Refer modified technical specifications. clause no. 14 will be modified as below. Data Features: - i. TCP/IP stack access via AT commands ii. Internet Services : TCP, UDP, HTTP, FTP, SMTP, POP3 iii. Min. Baud Rate: for operation over RS232 port - 1200 bits/sec iv. Max. Baud Rate: for operation over RS232 port - 115200 bits/sec.
15.	Point No. 15 Clause no. 19. Operational Indicator :-The Modem should have separate four no. of LED indicators for data transmission (Tx), data reception (Rx), carrier detect and Power ON to indicate Power on position and to indicate the availability & strength of cellular network signal at the place of installation.	No modifications required.

Pin	Signal	Pin	Signal
1	Data Carrier Detect	6	Data Set Ready
2	Received Data	7	Request to Send
3	Transmitted Data	8	Clear to Send
4	Data Terminal Ready	9	Ring Indicator
5	Signal Ground		

	Offered modem have 3 LED. Common LED's have been provided for Carrier Detect and Power On. Request you to consider the same. a) Network LED (red LED): The red LED indicates the status of the power supply, network registration and signal strength. b) Local communication LED (orange LED): The orange LED indicates the status of local communication (between meter and modem). Remote communication LED (green LED The green LED indicates the status of remote communication (NB-IoT/GPRS).	
16.	Point No. 16 Clause no. 22: Configuration through software tool Modem configurations can be read or write with supplier application. No AT command will available. All remote configurations can be done over FTP channel.	Accepted.
17.	Point No. 17 b) Configuration through Mobile application: The bidder should provide mobile application using which it should be possible to configure the modem for various parameters like baud rate, parity, data bit, flow control and APN details with user Name and Password, Server IP, Modem listening port etc. The mobile application should work on any Mobile operating systems such as Android and iOS etc. The Mobile App shall verify following: ✓ Status of GPRS activation of SIM card ✓ Communication of Modem with HES ✓ Communication between Modem and Energy Meter For verification of above, Smart Mobile Phone loaded with the App shall be connected to the Modem's RS232 port through USB to RS232 Converter. Mobile application is not available & records can be updated in backend software only. This requirement will invite extra cost to MSEDCL due to involvement of license cost for number of users. Since Modem installation will be a onetime activity the same can be taken care through MDAS itself.	No modifications required. Clarification : Provision of mobile app for modem configuration is mandatory for bidder. Bidder may submit mobile app, before supply.
18.	Point No. 18 Safety Standard We request you to include safety standard for communication equipment i.e. IS-13252 as mandated by Depart of Telecom. (DoT), Ministry of Communications, Govt. of India. The same is a key safety requirement considering the recent concern	No modifications required.

	of the Govt. of India over data security and privacy.	
Bidder Name: Probus Smart Things **Letter No. PSTPL/20-11/010 dated 20.11.20**		
1.	QUALIFYING REQUIREMENTS : Clause 6 : The bidder/manufacturer shall have experience of having successfully completed the works for supply, installation and commissioning of GPRS modems or GPRS DCU or communicable meters or GPRS based Hand Held Terminals, during last 7 years till date of publishing the tender. The experience should be either of the following a) Three completed work orders costing not less than 5.5 Crores OR b) Two completed work orders costing not less than 7 Crores OR c) One work order costing not less than 11 Crores. The work experience should be measured in terms of number of meters brought online for real-time monitoring and not on number of modems supplied. Probus is an authorized license partner of Wirepas Ltd. in India. Wirepas Ltd. Is a global leader in RF AMI/AMR solutions. We request MSEDCL to consider the Wirepas global credentials for this project. Probus has supplied more than 750 modems to various utilities in the last 2 years. We request to kindly consider the combined experience of both Probus & Wirepas for the same. This would provide MSEDCL with an advanced and broader range of technical solution which would not be limited to AMR solution but would result in end-to-end optimization of the LT distribution network of MSEDCL. Moreover, We are three year old company and as a startup our net worth is not positive for the last three years. We are a SEBI Class I venture fund backed company and also have financial partners to execute these projects	No Modification required
Other points in the letter do not pertain to IT Department.		
Bidder Name: Genus Power **Letter No. GPIL/HW/Mkt-Mum/0128/2020 dated 23.11.20**		
1.	The modem shall be suitably protected against voltage surges (6kV voltage surges and 10kV impulses). Required certificates issued by any Govt. Body/NABL accredited lab is to be produced in this regard.	Accepted. Refer modified technical specifications. clause no. 2 (c) will be modified as below. The modem shall be suitably protected

	Modem supports for 6kV surge & 6kV impulse only. Need to amend in point.	against voltage surges (6kV voltage surges and 6kV Impulses). Required certificates issued by any Govt. Body/NABL accredited lab is to be produced in this regard.
2.	The offered Modem should be capable to transfer the entire data of Tri-vector Meter in less than 5 Minutes after connection is made, assuming there is no disturbance like network failure/power failure etc. It will depend on the amount of data transferred.	Accepted. Refer modified technical specifications. Clause No. 2 (d) will be modified as below. The offered Modem should be capable to transfer the entire data of Tri-vector Meter in less than 5 Minutes in ideal condition at the time of testing, after connection is made, assuming there is no disturbance like network failure/power failure etc.
3.	Battery: The modem should have in-built rechargeable, maintenance free battery having life of minimum 10 years, for sending power outage notifications as per clause No. 6. Super capacitor will not be accepted. Super capacitor is used for sending power outage notification.	No modifications required.
4.	(i) Modem should be an intelligent modem with store and forward feature. Modem should have sufficient memory to store the meter data of minimum 45 days. The memory shall be scalable/upgradable. iii) The modem shall have sufficient non-volatile memory, so that the registered parameters will not be affected by loss of power. iv) It should be possible to convert mode of working of modem from intelligent mode (Push mode) to transparent mode (Pull mode) and vice-versa. Such conversion should be done through locally and remotely, over the air through configuration tool and through SMS. We propose that modems should be transparent modem, Modem will support transparent connectivity. For Store & Forward: All Makes of Meters, Associated protocols, Security Keys, Respective Makes downloading software required. It will take long development.	No modifications required. Clause No. 8 (ii) will be modified as below. Modem should have sufficient memory to store the meter data of minimum 45 days, in case of non-communication with server. Clause No. 8 (iv) will be modified as below. It should be possible to convert mode of working of modem from intelligent mode (Push mode) to transparent mode (Pull mode) and vice versa. Such conversion should be done through locally and remotely, over the air through configuration tool or through SMS.
5.	Modem firmware should be inclusive of IS 15959:2011 (Part-I) with latest amendments (Indian standard: Data exchange for electricity meter reading, tariff and load control-companion specification). Supplier should ensure pre-loaded IS 15959:2011 (Part-I) protocol, before supply. Also utility specific OBIS code defined by MSEDCL, given in annexure-I, should be supported by modem. If any new OBIS code	No modifications required.

	introduced during guarantee period of modem, firmware support for such OBIS codes should be provided by bidder, without any additional cost. We suggest to change to transparent modem as it will took long development time.	
6.	Modem should support time synchronization from HES or network. If we go for transparent modem, For Transparent Modem, It is not required	No modifications required.
7.	Online Tamper Detection: Modem should continuously poll the meter for any new tamper and will push details of event to server and also to pre-programmed mobile numbers as an SMS alert. Tamper Identification bits may be different in respective makes of meters, So details will be required.	Accepted. Refer modified technical specifications. clause no. 9 will be modified as below. Online Tamper Detection: Modem should continuously poll the DLMS meter for any new tamper and will push details of event to server. Server will send SMS to predefined number to notify the tamper event.
8.	Soft Reset Feature :-Modem should soft reset itself for every six hours. If reset happens on every 6 hour, & if HES tries at same time, It will create Communication Failure for that moment.	No modifications required.
9.	Configuration through Mobile application : Required Development time to demonstration application.	No modifications required.
Bidder Name: Kigg Systems India E-mail dated 23.11.2020		
1.	Clause No. 8 (VIII) & (IX): Other requirements Please clarify that the modem should be able to read the DLMS meter locally or through MDMS in a transparent mode. i.e. Modem should have DLMS or not.	No modifications required. Clarification: Modem should be able to read DLMS meter locally (i.e. without receiving any command from MDAS/server), while working on intelligent mode. For this, modem firmware should be inclusive of IS15959/2011 (Part-I) and latest amendments.