

Corrigendum 4 – Update on Bid Submission Date and Technical clarification

Dated: 05/01/2021

Reference - This corrigendum has been issued for NIT/BID document No:
AEML/MDB/2020-21/88

With Reference to the above, bid submission date is extended from 06th January 2021 to 12th January 2021 , the corrigendum 4 to the tender is hereby issued as follows:

Bid Submission Details: -

Description	Revised Date and time	Mode	Remarks
Bid Submission Date	12/01/2021 18:00 Hrs IST	Online	NA

Detailed Technical Clarification: -

S.no	Specification Clause No	Description	AEML Response
1	Clause no. 1 of Section-IV Bill of Quantity (BOQ) point no 1	Three Phase Portable handheld Reference standard meter (RSM) of 0.05 class for single phase, Three Phase Directconnected/Whole current meter, Three phase CT operated LT meter testing with all applicable accessories, software & SDK	A. Devise Must be of Portable Hand Held Type. B. 0.2s class for clamp mode & 0.1 class for Direct mode

2	Clause 2 of Section-III Testing & Training	Any bidder making a proposal to AEML must demonstrate compliance to the Indian Standards with latest amendments.	IS13779 / IS14697 / IS16444
3	Section V - Technical Specifications	Point no 9.1 - Voltage range 0 to 300V	Instrument shall able to measure 0 - 30V (provide uncertainty) for 30V to 300V accuracy specification compliance is required
4		Point no 7 - Frequency range of measured quantities - 45Hz to 70Hz	As per specification
5		Point no 10.1 - Current Measurement for Direct CT (Upto 12A) - 1mA to 12A Point no 10.3 Clamp on CT Range (100A) - 10mA to 100A Point no 10.5 Clamp on CT Range (1000A) - 1A to 1000A	Meter testing shall be conducted as per IS14697, however Reference standard shall be with extended ranges to test tariff meter onsite environment within required uncertainty.
6		Point no 11.1 - Direct 1mA to 12A - Accuracy 0.05%	
7	Clause 2 of Section-III Integration point no C.)	Vendor will Provide software development kit (SDK) and vendor will facilitate Integration & Testing of SDK with AEML developed android based Mobile Applications in devices provide by vendor. This data transfer will be of plug and play type hence neither further customization nor development require for this.	SDK to be provided by Vendor & vendor will facilitate in integration of the SDK with AEML Mobile Application

8	Clause 2 of Section-III Integration point no H.)	Device Should be have connectivity for USB, RS-232 and optical interface, 4G/3G/2G/wireless & GPS	USB/RS232 is for PC Communication Optical Interface is for Meter data downloading for DLMS Meters 4G/3G/2G is for sending data to Cloud server GPS is for Location & RTC Setting
9	Clause 2 of Section-III Integration point no H.)	Optical Interface	SDK to be provided by Vendor & vendor will facilitate in integration of the SDK with AEML Mobile Application
10	Clause 2 of Section-III Integration point no A.)	Once meter testing is completed AEML needs that meter testing data to be available for analysis and records. This needs integration of meter testing device with AEML developed Android based Mobile Application & SAP ISU	Display shall be as per specification. SDK to be provided by Vendor & vendor will facilitate in integration of the SDK with AEML Mobile Application
11	Section V - Technical Specifications	Point no 18.2 CT Ratio & Phase Error Testing	simultaneous testing of all 3 phases (R,Y,B)
12		Point no 11.2 Clamp-on CT 10mA – 100A - 0.002 Point no 11.3 Clamp-on CT 1A – 1000A - 0.002 Point no 11.4 Drift / year at power / energyb - 0.0002	11 Power / Energy (30V to 300V) 11.1 Direct 1mA to 12A 0.05% 11.2 Clamp-on CT 10mA – 100A 0.2% 11.3 Clamp-on CT 1A – 1000A 0.2% 11.4 Drift / year at power / energy 0.02%

13	Section V - Technical Specifications	Point no 19.1 Display Resolution - between 0 to 9 up to seven digits in High resolution	parameter resolution shall be as per required accuracy
14		Poni no 10.8 Bandwidth - 30Hz to 10KHz	Instrument shall be suitable for measurement of 51st harmonics accurately Please provide accuracy of power measurement upto 51st harmonics along with standards
15		Point no 14.4 Frequency - More than 200kHz	TTL pulse output of device for calibration and accuracy compliance with sufficient resolutions
16		Poni no 10.11 Influence of crest factor: ≤ 6 for a current $\leq 2,000$ A peak - $< 1\%$ of Output Signal	Instrument shall be capable of correctly measuring distorted waveform upto 51st harmonics
17	Clause 2 of Section-III Integration point no E.)	Thermal Printer should be able to integrate with Device via various available wired & wireless media such as Bluetooth and others to enable AEML for Onsite Printing of Testing results	Standard available sizes to suit content of report
18	Clause 2 of Section-III Detail description of Scope	Paper quality of the Portable thermal printer is such that it will be preserved for longer duration without fading	It should be provided by vender with proper size so that test results cab ne printed properly and it should be preserved for longer durations
19	Clause No 2 of Section-III Scope of Work- Supply of Materials & Systems Point no E)	Connection Accessories such as crocodile pins,insulators, safety locks	Safety locks is stands for proper connection arrangemnts. There shuld not be any loose connection. It shuld be of locking type. This will not leads to chances of flash, short circuites

20	Clause No 2 of Section-III Scope of Work-Supply of Materials & Systems Point no O.)	Flexible cord upto 12 Amps	Cords for direct measurement without clamp on C.T's
21	Section IV - Project Delivery Schedule	a.) Supply of material	Delivery Timeline will not be chaged
		b.)Acceptance Testing	Acceptance testing stands for compatilby, usefull ness, adherence to standard, specification & quality of devices/
		c.)Integration between Device with SDK & APK of AEML Android Mobile Application	SDK to be provided by Vendor & vendor will facilitate in integration of the SDK with AEML Mobile Application
22	Sample	Sample Device Submission	AEML will share this time line with Technical Qualified vendors
23	Dial Test	DLMS Dial Test	For Automatic Testing of all three Energies (Active, Reactive and Apparent Energy) simultaneously in DLMS meters, there is DLMS Dial test mode to communicate with the meter through Optical probe which will avoid manual errors : however same feature can be incorporated
24	Data for Test reports	Data for Test reports : detailed parameters of Consumer data, Meter data & Test data for test reports and Data Entry.	AEML will Share with these details with successful bidder

25	power consumption.	The equipment shall have 20VA maximum as power consumption.	AEML Allowed higher power consumption ~ 50VA. For portable equipment, which are used only for less than 2 hours during tests in a day, higher power consumption does not matter. AEML considered higher power consumption as more features being asked, AEML Needs 50VA max.
26	Harmonic analysis	Harmonic analysis in Voltage, current and power for up to 51 st factor related to fundamental frequency.	Submit with deviation, Also provide accuracy of power measurement upto 31st harmonics along with standard supported
27	Display	The display shall be on TFT display.	The equipment should have TFT colour display, since 3-Phase portable equipment should give clear information in colour about R-Y-B phases in 3-Phase LT power system.
28	Sample	One sample equipment complete with all accessories and software functions as desired by AEML shall be submitted to AEML laboratory for evaluation of the portable equipment for suitability and assessment as per AEML requirement.	Kindly adhere to Delivery Schedule

29	Voltage and current accuracy vide clause no. 9.2 and 10.2	Voltage and current accuracy vide clause no. 9.2 and 10.2 is same as accuracy for power/energy. The base parameter accuracy i.e. for voltage and current must be better than asked accuracy for power and energy since power and energy accuracy derived from base parameter voltage and current accuracy.	Agreed and noted : Power (Energy) is product of voltage, current and phase angle between them (integration time), to achieve power accuracy defined in specification vendor must sample parameters with better accuracy and resolution. (Accuracy specified in specification for voltage and current is for display and minimum requirement)
30	Specification	pre-bid discussion that specification asked in ideal condition	Actual site condition considered while preparing the specification.
31	Delivery	Delivery : 50% in 4th week and 50% in 6th week from the date of PO.	Kindly adhere to Delivery Schedule
32	EMD Tender Fee Document	Initially Online	Hard Copy to be submitted
33	Specification	The Specification is for most of the features which are required for different application.	Please refer ammended Specifications. There will not be further changes in Specification & Timelimes.
34	Bid Submission date	Currently : 06.01.2021	Revised 12.01.2021