

**Corrigendum 1 – BID Extension, Update on Technical, General Terms.**

Dated: 25/11/2021

**Reference** - This corrigendum has been issued for NIT No: AEML/MDB/2021-22/66.

With Reference to the above, the Corrigendum 1 to the tender is hereby issued as follows:

- Extension of Bid Submission Date - Revised bid Submission date will be 3.12.2021
- Revision in Technical Specifications
- Prebid Queries Reply

<b>Type of Query</b>	<b>Our Remark/Justification</b>	<b>AEML Response</b>
General- Regarding Delivery Period	Due to pandemic and severe shortage of semiconductor components and devices worldwide, and as equipment is from Europe (for all manufacturers), realistic delivery time is 180 days.	Submit as a deviation
For Single Phase Test Bench:	Ideal solution is 30 position MSVT and 10 ICTs. This is the ideal solution by most European manufacturers.	As per specification
Automated testing of phase channel, neutral channel and combined phase and neutral channel shall be possible.	Usage of multiple relays – 02 Contacts for each meter position, (as used by some manufacturers, being a cheaper solution), should not be accepted. Reliability is an issue if 60 relay contacts are used on the current circuit at high currents	Disconnection of individual meter position of 1P and 3P required to test load limit features
VA of Voltage Source is mentioned as 300 VA and current source is mentioned as 1500VA	Manufacturer must ensure sufficient VA for Voltage and current Sources so that all kinds of meters, including smart meters can operate at full load.	Accepted
Financial Qualification Criteria	FY 2020-21 Accounts statements are under audit so we request you to allow us Previous 3 Yrs Turnover data, i.e. till 31st March 2020.	Submit as a deviation

<p>General</p>	<p>Due to scarcity of electronic components, we request you to increase the delivery period.</p>	<p>Submit as a deviation</p>
<p>The EMD and Tender fee shall be Exempted for valid MSME /NSIC Bidder Almost Every Power Utilities / Central and State Govt Departments promotes and allow exemption in EMD to</p>	<p>Almost Every Power Utilities / Central and State Govt Departments promotes and allow exemption in EMD to MSME/NSIC Bidder as per MSME Development act</p>	<p>EMD shall not be exempted.BID submission will not be considered valid if EMD not submitted.Tender Fee not applicable.</p>
<p>Lead consortium partner shall fulfill the technical qualification criteria and shall have min 5 years of supply, installation and after sales service experience as an Indian Commercial entity either independently or as an representative of Internationally reputed Meter test Equipment manufacturer in India</p>	<p>To ensure quality and reliability an experience lead bidder is must</p>	<p>As per Tender Document</p>
<p>Bidder shall be in supply of fully automated 20 position or 30 Position single phase bench with reference standard meters of class 0.02 for smart meter testing From at least last FIVE years as on tender date Should have supplied at least 4 similar test benches to Power utilities / Discoms / NABL labs -Shall supply min 2 performance certificate for successful operation of similar test bench for at least 3 years successful operation - Should have successfully supplied test benches with tamper function features per the specification and shall be in operation from last 3 years on tender opening date</p>	<p>To have on board quality and reputable supplier an experience of min 5 year shall be asked along with the supply and performance experience as asked</p>	<p>As per Tender Document</p>

## Electricity

Project delivery period shall be min 16 weeks instead of 8 weeks	material availability 8 week is difficult to meet	Submit as a deviation
Degree of Protection shall be IP-30 instead of IP-51	Power sources need to be used under laboratory conditions and usually no of cooling fans and vent required proper heat circulation due to higher VA capacity of Source	Submit as a deviation
Kindly specify the details for communication technologies adopted specially for RF communication. Ø Please specify Tamper Condition for Single and Three Phase separately. Please specify requirement of Automated testing of Communication	Kindly Delete the requirement for RF communication as technology adopted by manufacturers depended hence this will increase the complicity at Meter test bench supplier end being dependency on head end system by various manufacturer . However, features like suitable communication (optical port) shall be possible with the test benches and required hardware shall be integrated	Please refer technical specification
≤0.01% (Linear and Non-Linear Load at maximum integration time of 60 sec or 100 PPM/hrs. at 50 HZ	Please amend as 10ppm/hr. at 50 Hz seems typo error	Type Error Please refer technical specification
Provision of Super Position Of harmonic from 2nd to 21st Shall be considered instead of 2nd to 51s	We understand Standard specifies only up to 21st or even up to 10Th harmonic only. We understand that 40% of Amplitude value is enough up to 500 HZ to comply the testing requirement of meters	Please refer technical specification
Fundamental Frequency of Power source shall be considered 45-65 Hz instead of 45-70 Hz	Upton 65 Hz Enough to cater most meter testing requirement	Submit as a deviation

<p>Test bench shall be suitable to test 20 Nos Three phase / 30 No single-phase meters at time by manual/automatic mode in such a way that while testing either type of meters testing shall be done without manual intervention and considering the safety requirement of operators</p>	<p>To have productivity automation and safety for individual type meter testing shall be considered</p>	<p>Accepted</p>
<p>Technical</p>	<p>IP51 not applicable for stationary system. IP30 shall be asked.</p>	<p>Please submit as a deviation</p>
<p>Technical</p>	<p>Tempo asked 50 PPM/deg Centigrade whereas +/- 2 deg allowed as per</p>	<p>Refer Technical Specification</p>
	<p>environmental condition (total 4deg variation) due to 50 PPM Temp co. The</p>	
	<p>allowed variation in accuracy goes 200PPM (which is equal to asked</p>	
	<p>accuracy of Reference standard). Temp-co shall be kept 10 PPM.</p>	
	<p>Uncertainty of the test bench will be very poor in case of Tempo kept 50</p>	
	<p>PPM/deg</p>	
<p>Technical</p>	<p>Looking to the requirement of combined phase and neutral channel testing appropriate nos. of ICTs are required with single phase test bench. Please confirm</p>	<p>Accepted (Please refer technical specification)</p>
<p>Technical</p>	<p>Detailed testing of smart meter shall be defined.</p>	<p>Please refer technical specification</p>
	<p>We understand that Burden measurement unit will be required which will be</p>	
	<p>capable to measure burden for voltage and current circuit both for Smart</p>	
	<p>meters.</p>	

	Detail specifications for Smart meter testing is enclosed under Annexure –	
	A.	
Technical	Voltage source Sr. no. 1 Range of RMS (P-N) voltage asked 450V AC whereas 300V (P-N) & 519V (P-P) is sufficient as per Indian standards for Energy meters.	Accepted
Technical	Voltage Source	Please refer technical specification
	Output power – 3 x 300 VA	
	Current Source	
	Output power – 1500 VA	
	In our view it should as follows;	
	For Three Phase 20 Pos. Test Bench	
	3x500 VA for Voltage, 3x2000 VA for Current	
	For Single Phase 30 Pos. Test Bench 1500 VA for Voltage, 2000 VA for Current	
Technical	Voltage source sr. no. 4 Distortion Factor asked <0.05% which shall be <0.5% as per environmental condition NABL121.	Please submit as a deviation
Technical	Voltage source Sr. no. 9, harmonic range asked 51st whereas at other place it is asked 40th order. However 40th order is sufficient for energy meter testing.	Please refer technical specification
Technical	Current source sr. no. 4 Distortion Factor asked <0.05% which shall be <0.5% as per environmental condition NABL121.	Please submit as a deviation

Technical	Current source Sr. no. 9, harmonic range asked 51st whereas at other place it is asked 40th order. However 40th order is sufficient for energy meter testing.	Please refer technical specification
Technical	Isolation current transformer the asked phase displacement error is quite higher in compare to asked ratio error. It shall be 1min.	Please submit as a deviation
Technical	Reference meter: degree pf protection asked IP51 which is not applicable on stationary reference meter, it shall be asked for IP40	Please submit as a deviation
Technical	Tempo asked 50 PPM/deg Centigrade whereas +/- 2deg allowed as per	Please refer technical specification
	environmental condition (total 4deg variation) due to 50 PPM Temp-co.	
	The allowed variation in accuracy goes 200PPM (which is equal to asked	
	accuracy of Reference standard)	
	Uncertainty of the test bench will be very poor in case of Temp-co kept 50	
	PPM/deg	
Technical	Point no. 23,24,25 & 32 asked for 51st harmonics which shall be 40th order	Please refer technical specification
Commercial	8 weeks Delivery shall be amended to at least 14 weeks looking to the leading time of electronic component due to pandemic situation worldwide.	Please submit as a deviation

Commercial	Integration between SDK and APK of AEML android mobile application is not applicable. Payment terms mentioned under SLA also relate hence it shall also be amended.	Yes
Commercial	Estimate Cost – Rs. 210 Lakh. The estimated cost of Rs. 210 Lakh will be suitable for low quality Chinese Test systems. We request you to review the same in view of required Quantity.	Ok
Warranty Clause	Amended	The Supplier shall provide comprehensive warranty for a period of 60 months from the date of installation, and this includes following clauses: Conform in all material respects with their description and any applicable Specification. Be free from material defects in design, material, and workmanship. Be of satisfactory quality The defect arises because the Customer failed to follow the Supplier's oral instructions as to the storage, commissioning, installation, use and maintenance of the Goods. The defect arises as a result of wear and tear, willful damage, negligence, or abnormal storage or working conditions; or The Goods differ from the Specification as a result of changes made to ensure they comply with applicable statutory or regulatory requirements; or In such circumstances the Supplier will repair the Goods without any cost complication. For complying warranty clause it is mandatory for OEM to have Support centres in India only.



Electricity

Bid Submission date	Revised	revised bid Submission date will be 3.12.2021
Technical Specification	Revised	Annexure I Technical Specification Test Bench attached