

Tender Details		31-10-2023 02:52:04
Tender Code	MMD/T-NSC-15/1023	
Tender Type	Works Tender	
Type Of Bid	Two Bid	
Description	Supply, Installation and FMS Activity for 5 years of Three Phase Power Quality Meter at LV side (11 KV) of Power Transformers in MSEDCL	
Estimated Cost (In Lakhs)	6069	
Basis of prices	NA	
Tender Validity	NA	
Delivery Requirement (In Months)	NA	
Tender on rate contract basis	NO	
Tender Fee (In INR)	25000	
GST In INR (@18% on Tender Fee: SAC No.	4500	
Total Tender Fee Amount including GST in INR.	29500	
Contact	Mr Girish Gaikwad , 7506990821 ,cemmcmsedcl@gmail.com	
Pre-Qualifying Req	As per QR clause	
Budget Type	NA	
Scheme Code	null	
Scheme Name		
Department	Material Management Cell	
Office Type	HO	
Location Type	Corporate Office	
Designation	Executive Engineer(Distribution)	
Pre-Bid Meeting Address	Through Video Conference	
Bid Opening Address	Office of the Chief Engineer, MSEDCL, MMD, Plot no. G-9, "Prakashgad", 1st floor, Prof.Anant Kanekar Marg, Bandra (E), Mumbai-400051.	
Version No	1	
Call for Deviation	NO	
Is Annexure C1 Applicable	NA	
Is Manufacturer Applicable	NO	
Is Trader Applicable	NO	
Minimum % of Offered Quantity	NA	
Is Power Supplier Applicable	NO	
Tender Sale Start Date	31-10-2023 15:30	
Tender Sale End Date	20-11-2023 12:00	
Bid Start Date	31-10-2023 15:40	
Bid End Date	20-11-2023 17:00	
Pre-Bid Meeting Date	06-11-2023 16:30	
Techno-Commercial Bid opening on	20-11-2023 17:30	
Price Bid opening on	Will be declared later	

Annexure C1 Opening Date	NA
Winner Selection Date	Will be declared later
Can Bidder Opt EMD Exemption	Y



**MAHARASHTRA STATE ELECTRICITY
DISTRIBUTION CO. LTD.**

Request for Proposal

Tender for Supply, installation and FMS activity for 5 years of Three Phase Power Quality Meter at LV side (11KV) of Power Transformers in MSEDCL.

Tender No: MMD/T-NSC-15/1023

Estimated Tender Cost: Rs. 60.69 Crores

CHIEF ENGINEER,
Maharashtra State Electricity Distribution Co. Ltd.,
Material Management Dept.,
Plot No. G-9, "Prakashgad" First floor,
Prof. Anant Kanekar Marg,
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1.0 INTRODUCTION

1.1 Overview:

Maharashtra State Electricity Distribution Company Ltd (MSEDCL) has its operations in the North East area of Mumbai and rest of Maharashtra State with a customer base of around 2 Crore 88 Lakhs. MSEDCL expends substantial effort and resources in realizing its mission of 'Ensuring Excellence in Customer Services'.

1.2 Objective:

MSEDCL has taken a decision to provide 1,500 nos. of Power Quality meters on the secondary (LV) side of the Power Transformer which are spread over entire state of Maharashtra.

The main objective is to supply, installation and commissioning of 1,500 nos. of three phase power quality meters as per IEC 61000-4-30 (Class A) & as per IS 14697:1999, Data for harmonics report (IEEE 519-2014), Data for voltage quality report (IS:17036), PQ event report (Sag, Swell, Interruption, Rapid voltage change) with communication module and FMS activity viz. Establishment and maintenance of communication between meter and server, Application Server, Communication (Data), power quality solutions & Training etc. The PQ meter data using communication module shall be transported to cloud. These meters shall be installed in series with existing MSEDCL Audit meter connected to LV of Power Transformers with separate suitable indoor/outdoor type metal enclosure and ensure continuous monitoring and making reading available in public domain from the date of successful installation & commissioning of 100% quantity for further 5 years (FMS Activity).

As per the scope of to be covered, the agencies have to supply the meters to the nearest MSEDCL store as per the Dispatch instructions. For installation at site the store in charge will issue the meters to the agency after acceptable in Random sample testing of the lot supplied. The working manual is attached as Annexure-IX.

These Power Quality meters are to be installed on 1,500 nos. of Power Transformer's LV side spread over entire state of Maharashtra. Meter data is to be acquire automatically from the remote for 5 years avoiding any manual intervention, monitor important distribution parameters, use of meter data for accurate measurement, monitoring and recording of harmonics (Current or voltage waveform distortion), sags (short duration voltage dips), swells (Short duration increase in Voltage), flickers (voltage change in rapid succession) and other power quality parameter for ensuring quality of power, proper planning, monitoring, decision support and taking corrective actions on the business activities by Management and for regulatory compliance (MERC Supply code, SOP including PQ regulations 2021). The list of Power Transformers to be covered is attached as Annexure-XIII.

1.3 Implementation of Power Quality meters in MSEDCL

1.3.1 Commissioning:

The commissioning of Power Quality Meters is one time job after installation of these meters in field.

1.3.2 Intent of the Project:

The intent of the tender is to select agencies supplying, installing & commissioning the Power Quality meters along with allied materials wherever required on Power transformers LV side, development of communication architecture, data availability on line to MSEDCL and its consumers & can implement the solution for FMS activity in a time bound manner. The prospective bidder shall quote the meter supply cost including Meter cost, installation & commissioning charges, FMS Charges per meter and sim card charges per meter for 5 years period & its recurring charges for a period of 5 years from the date of installation of meters.

2.0 SCOPE OF WORK

2.1 Project

The scope of the project covers supply and installation of Meters along with allied materials wherever required, Establishment and maintenance of communication between meter and server, Application Server, Communication (Data), power quality solutions & Training etc.

The work involves following activities:

1. Supply of 1,500 Nos. of Three Phase Power Quality (PQ) Meter as per MSEDCL specs.
2. Installation of said 1,500 Nos. of PQ Meters at respective substations on indoor/at outdoor panel by providing suitable high quality rustproof Metal enclosure with all necessary accessories (channels, Control cables, nut-bolts, TTB etc). These meters shall be installed in series with existing MSEDCL Audit meter connected to LV of Power Transformers with separate suitable indoor/outdoor type metal enclosure and ensure continuous monitoring and making reading available online on dashboard from the date of successful installation and commissioning of 100% quantity for further 05 years (FMS activity).
3. Supply and commissioning of AMR facility to PQ Meter. Successful bidder shall provide remote communication device such as 4G intelligent modem or router or Data concentrator Unit (DCU) etc. and relevant accessories. Installation of SIM Card and activation of SIM cards for complete AMR. The cost of SIM card & recurring monthly charges shall be borne by bidder.
4. The Bidder has to provide Head End System (HES) for collection & storage of meter data. The HES shall be deployed on cloud arranged by the bidder. Cloud charges for instance including cost of all licenses required for OS, database, software tools etc. required for hosting of HES, for entire contract period, will be borne by the bidder.
5. Seamless integration of Head End System (HES) with MSEDCL MDAS is in scope of bidder. (Please refer clause No. 8.11 of technical specifications. The integration of HES with MSEDCL systems should be done using web service based APIs. Inter application data exchange may be done through JSON/XML format.)
6. Facility Management Services (FMS) for 05 years from the date of Integration of 100% quantity of Power Quality meter(s) with MSEDCL MDAS.

2.2 Facility Management Services (FMS) Activities For Power Quality Meters / Communication connectivity scope:

- i. Setting up data connectivity between meter & central server. Selection of service provider having best network strength at site will be responsibility of agency.
- ii. Ensuring 24*7 data connectivity between meter & central server.
- iii. In case of communication failure between meter and central server bidder has to resolve issue & establish communication between meter & server within 72 hours. Also bidder shall make alternate arrangements to download the meter data through optical port, at its own cost. In such cases the bidder should read the meter data through optical port and the downloaded data should be uploaded to portal. Any failure to meet this requirement shall attract penalty as per SLA with bidder for maintenance & support during warranty and FMS periods.
- iv. In case of non-communication due to SIM card issues, agency should resolve SIM issues after reporting to concerned service provider within 72 hrs at its cost.
- v. Agency should monitor Head End System (HES) remotely and ensure 24*7 uptime of HES during FMS period. To maintain uptime of HES after expiry of FMS period, AMC shall be given by the bidder.
- vi. The bidder should facilitate the signing of SLA and agreement between bidder and MSEDCL.
- vii. The bidder shall ensure and commit its SLA for maintenance and support during Warrantee and FMS periods of contract.

- viii. MSEDCL has its own in house developed MDAS module. The features of MSEDCL MDA solution are described below:
- a. The Meter Data Acquisition System can acquire data from various meter make Energy Meters connected through serial communication using modems. The data extraction can be granular (based on type of data e.g. billing, instantaneous, load profile, etc.) and incremental in order to minimize the data volume.
 - b. The data extraction can be granular (based on type of data e.g. billing, instantaneous, load profile, etc.) and incremental in order to minimize the data volume.
 - c. The scheduling features allows user to configure the acquisition schedules for a location, set of meters or for the office hierarchy such as division, subdivision.
 - d. The system maintains complete history of metering points, consumer details and can compare data points of the same or different metering points.
 - e. Supports report server integration.
 - f. The system is scalable and integration with other applications of MSEDCL.
- ix. The Successful Bidder is supposed to do the necessary seamless integration with MSEDCL's existing Meter Data Acquisition system and legacy systems. Further data shall be made available in public domain.

2.3 Variation of Scope:

MSEDCL will have full-undisputed discretionary rights to add or reduce the scope of work/area of interest as per its requirements and agency will have to comply accordingly. Anytime during the contract period, MSEDCL may modify its business process/workflow as per its requirements and agency will have to comply with it, without any adverse commercial implications. MSEDCL will have full undisputed discretionary rights to continue solution implementation after the tender contract period.

2.4 Project Deliverables:

The project deliverables will include, but are not limited to:

- i. Project plan along with proposed solution document.
- ii. Communication equipment's.
- iii. Technical specification / Data sheet of module details and chipset details
- iv. Software and hardware tools used for network planning, analysis and debugging
- v. System manual / user manual and data collection software used.
- vi. Head End System (HES) should be handed over to MSEDCL, after expiry of FMS period. Also this software shall be integrated with MSEDCL MDAS application.
- vii. Configuration tool, if any, used for service provider settings / network settings shall be supplied to MSEDCL.

2.5 QUALIFYING REQUIREMENTS:-

The Bidder must meet the qualification criteria detailed as under:

- I) Bidder should be original manufacturer of Power Quality Meters.
- II) The turnover in any one of the last three financial years shall be 60% of estimated cost of the tender.
- III) Shall have supplied 25,000 HT TOD meters of 0.2s and 5,000 ABT meters of 0.2s class as per IS 14697: 1999, IS 15959 during the last three financial years Or 2500 nos. PQM Class A supplied globally as per IEC61000-4-30).

- IV) Shall have experience of supply, installation, commissioning and FMS activity of at least 1500 ABT/PQM meters for feeders in substation in last 3 years.
- V) The offers of Indian subsidiary company, whose parent company is located abroad fulfilling the qualifying requirements, shall be considered provided the Indian participant subsidiary company fulfills the minimum experience of three years of supply, installation, commissioning and FMS activity of at least 5000 ABT/PQM meters for feeders in substation. Further, the conditions of turnover (i.e. Rs. 100.00 Crores or 60% of estimated cost of tender whichever is higher) during any one of the last three financial years and supply of minimum quantity of 25000 HT TOD meters of 0.2s and 5000 ABT meters of 0.2S class during the last three financial years out of which 5000 meters shall have been supplied in immediate preceding financial year can be fulfilled by the parent company located abroad on behalf of their Indian subsidiary company. The parent company shall furnish undertaking for accepting responsibility for supplying quality meters as per specifications and execution of the contract on behalf of its India based subsidiary unit who has participated in the tender in Annexure-I.
- VI) In case of offers of foreign bidders / manufacturers, they shall fulfill Qualifying Requirement as per Sr. No. [I], [II], [III] and IV above.
- VII) The offer from any one of Indian manufacturing companies which are sister companies of the same group and with the same management having majority of common Directors and shareholders shall be considered provided they are jointly fulfilling the Qualifying Requirements as per Sr. No. [I], [II], [III] and IV above .
- VIII) Bidder must possess the following certifications/ Documents at the time of submission of the bid.
- a. Valid Electrical contractor's License
 - b. Valid Class A International Certificate, for Power Quality Meter
 - c. Documents submitted should claim compliance to IEC 61000-4-30, IEC 61000-4-7
 - d. Certification for accurate measurement in EMC, climatic and other influence quantity mentioned by IEC 62052/53.
 - e. Other supportive documents as compliance to MSEDCL Technical specifications.
- IX) The participating firms have to submit ISO9001:2008 certifications or Capability Maturity Model Integration (CMMI Level-III) certificate or equivalent International standard certification along with offer.
- X) The participating firms have to submit R&D certification from Department of Science and Industrial Research (DSIR) or equivalent International standard certification along with offer. However, those firms which are not having R&D certification but have applied for R&D Certification, they shall submit this certificate before opening of Commercial Bid (Price Bid) of subject tender. Non submission of Certification before opening of Commercial Bid (Price Bid) from bidders, their offer shall not be considered for further evaluation. In case the participating firms submitted satisfactory performance certificate of 10,000 Nos. of Smart meters from End user, the firm may be exempted from submission of DSIR certification.

Manufacturer's Authorization (To be obtained from OEMs)

Date:
Tender No.:
Alternative No.:

To

WHEREAS _____

who are official manufacturers of _____ having factories at _____ do hereby authorize _____ to submit a Bid in relation to the Invitation for Bids indicated above, the purpose of which is to provide the following Goods, manufactured by us _____ contract and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with respect to the Goods offered by the above firm in reply to this Invitation for Bids. We also confirm that we are fully aware of the scope of work and have complete knowledge of the terms and conditions of the refereed tender.

Name _____

In the capacity of: _____

Signed _____

Duly authorized to sign the Authorization for and on behalf of _____

Date _____

2.6 TIME OF PERFORMANCE:

I) Contract period requirement:

Total Contract Period : 6 month from date of LoA.

Project Timeline---

- a. Completion of site survey and commencement of meter supply: 2 month from date of LoA
- b. Installation, Commissioning and making 1st reading available on MDAS/MSEDCL Server of installed quantity: 3 month from date of LoA
- c. Installation, Commissioning and making 1st reading available on MDAS/MSEDCL Server of installed of 100% quantity: 6 month from date of LoA

The 10% of ordered quantity is required to be supply within 2 months from date of LoA & the balance quantity in equated monthly lots within delivery schedule of further 4 months.

The contract period for ordered quantity will be spread over the contract period of tender in proportion to the quantities quoted by the firms.

Time period of contract is 66 months from date of LoA by the employer, which includes survey, supply and installation of new Three Phase Power Quality meters on power transformer LV side, installations implementation & integration of software solution and five years for FMS activity of above installed meters through MDAS/ MSEDCL Server.

- II) Further it shall be ensured by the bidder that the supply of Power Quality meters, should start after placement of LoA and subsequent activity of installation & readings/ FMS activity shall be started in the immediate subsequent month. The bidder accordingly shall submit their milestones and strictly adhere to it.
- III) The bidder should complete field survey and installation of Meters in-line with tender specification. No extra time for implementation or extension of contract period is allowed unless specifically agreed to in writing by the CE MMC.

2.7 ACCEPTANCE OF SUPPLIES/INSPECTION:

- I) The supplier shall normally offer at a time, the entire quantity required to be delivered every month as per the delivery schedule indicated at Annexure 'B' of A/T for the purpose of inspection by the Purchaser. However, in exceptional circumstances, the supplier may be allowed to offer quantity at a time not less than 50% of the quantity required to be delivered every month.
- II) Materials shall be inspected by the Purchaser's Executive Engineer/or the representative authorized by the Purchaser before dispatch. An intimation in the prescribed proforma about the date on which materials shall be ready for inspection, indicating approximate quantity, shall have to be given to the Chief Engineer (MMD), Maharashtra State Electricity Distribution

Co. Ltd., 'Prakashgad'. 1st floor, Station Road, Bandra (East), Mumbai - 400 051, in advance failing which, the supplier shall be responsible for delay in delivery on account of inspection. On receipt of such intimation, the materials shall be inspected within 20 days. The materials shall be dispatched only after inspection and approval of same by the Inspector. The inspection approval letter shall be valid for a period of 30 days from the date of issue of letter to enable the supplier pack the material and arrange transportation thereof so that material should be reached at the respective consignee within 30 days from the date of inspection approval letter. After this period of 30 days, the validity of this inspection approval letter will lapse. If the supplier fails to dispatch or the material is not reached within 30 days to respective consignees, the approval of purchaser is to be sought by the supplier for revalidation of inspection approval letter.

- III) The supplier shall notify the names of the consignees to whom the inspected lot would be dispatched. The Inspector shall intimate change in destination, if any, at the time of inspection approval and accordingly the material shall be dispatched. The supplier shall get the copies of inspection approval letter together with witness certificate duly signed by the concerned Inspecting Officer IN BLUE INK only and also mention reference or inspection approval letter on the challan / invoice, failing which any delay occurred in getting the S.R. Notes from the consignees would be solely to supplier's account.
- IV) Factory address, from which the bidder has to supply the material, shall be as indicated in the latest approved on line vendor registration form on e-tendering through which the bidder has submitted the offer.
- V) In the event, during the inspection by the Purchaser's Inspecting Officer, if it is observed that the quantity actually offered for inspection is less than the quantity indicated for inspection in the inspection call, the Purchaser shall be entitled to recover from the supplier, the actual expenses incurred for arranging the inspection, and the supplier shall not dispute the amount to be recovered.
- VI) The supplier shall submit the test certificates/reports from any approved laboratory or the laboratory of his own for the respective quantity of material, before dispatch. The material shall not be dispatched unless and until the test certificates are approved by the Purchaser.
- VII) All the necessary help shall be extended by the supplier to the authorized representative of the Purchaser to carry out testing of equipment/materials.

2.8 MILESTONES: To be submitted along with techno-commercial offer.

Milestone for Power Quality Meters	Qty. in Nos.	Timelines (Month wise)	% age penalty on Price
1	2	3	4
Supply	To be filled by the bidder	As per Cl. 2.5 of RFP	After the completion of timeline, LD @ 0.5% of committed lot value per week or part-thereof with maximum 10% of the contract value may be levied from the bill of the contractor
Installation	To be filled by the bidder	As per Cl. 2.5 of RFP	

FMS	To be filled by the bidder	Immediate subsequent month of installation of each meter.	
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Bidder shall offer 100% of the tender quantity failing which the offer is liable for rejection. The L-1 will be arrived as per package cost.

3.0 **BIDDING PROCEDURE AND INSTRUCTION TO BIDDERS**

3.1 **ELIGIBILITY TO BID**

The bidding process will be open to any agency who satisfies the **Qualifying requirement as per clause no 2.5.**

1. Bidder is eligible to submit only one bid.
2. Bids will be accepted by MSEDCL for those Bidders who have confirmed for their participation as mentioned in the Tender.

The bidder will be responsible for submitting the proposal and it will be the single point-of-contact for all information and clarification throughout the Procurement Process.

3.2 **To be qualified for award of Contract, bidder shall also submit:**

- I) Copies of original documents defining the constitution or legal status, place of registration and principal place of business for the bidder; and
- II) A written power of attorney / letter of authorization authorizing the signatory of the bid to commit the bidder; and Audited annual accounts including balance sheets and other financial statements for any of the three (3) consecutive financial years (FY18-19, FY19-20, FY20-21 & FY21-22);and
- III) Authority to seek references from the bidder's Bankers along with details of the Banks;
- IV) Proposals regarding work methods, scheduling and resourcing which shall be provided in sufficient detail to confirm the bidder's capability to complete the work in accordance with scope of work and the time for completion, including qualifications and experience of personnel proposed for the contract.
- V) The bidder shall submit the declaration along with the bid as below.
 - a. *The business dealings with the agency have not been debarred by any Ministry of GoI / GoM/ state owned electricity distribution utility and still in force.*
 - b. *The Directors, Proprietors, Partners, Employee(s) or owner of the agency have not been either jointly or severally guilty of malpractices in relation to its business dealings with the Government or MSEDCL during the last five years.*

3.3 **Overview of bidding process**

The Bidding Process would comprise of following sequential steps. MSEDCL reserves the right to reject all or any of the Bidders or Bids or discontinue or cancel the bidding process without assigning any reason whatsoever. These include the following:

1. It will be 'Single Bid Two Stage' tender process.

2. The key features of the tender in the form of Invitation for Bid will be released by MSEDCL on the MSEDCL website <http://www.mahadiscom.in> on tender release date.
3. Entire bidding document shall be available only in electronic format (soft copy) and is to be downloaded from Employer's website <http://www.mahadiscom.in> (or directly from URL <https://etender.mahadiscom.in/eatApp/>) from tender release date onwards. It shall be the bidder's responsibility to ensure that the entire bid document is downloaded from the requisite website. No hard copy of tender document will be provided. All the subsequent instructions/corrigendum to the bidding document etc. shall also be available on the website mentioned above.
4. To clarify any points on the tender, MSEDCL will organize a Pre-Bid Meeting, wherein all the interested bidders can participate. This meeting is not mandatory for the bidders.
5. The response to the Tender has to be submitted by the bidder who will be designated as a Bidder for the purpose of this Tender. The entire bidding process will be e-Tendering process. Bidder has to submit the documents through E-tender application in soft copy i.e. PDF as well as word/xls format
6. MSEDCL will open the Technical & Commercial Bid and the technically qualified Bidders will be informed based on the evaluation.
7. The technically qualified bidders may be asked to present their technical capabilities either by onsite presentation at MSEDCL or demonstration of Proof of Concept before the price bid is opened.
8. Technically Qualified Bidder's Price Bid will be taken forward for comparison & the Lowest Price Bid will be declared as the Bid Winner.
9. In case the bidder is successful, the contract agreement will be signed between MSEDCL and the Bidder.

4. CONTENTS OF THE BID

Tender Fee & Bid Security (EMD)

a) Tender Fee

A Non-Refundable Tender Fee of **Rs. 25,000 (Rupees Twenty Five Thousand Only)** plus 18% Goods and service tax (GST) shall be furnished only by way online payment through e-tendering website.

b) Bid Security (EMD)

The bidder should pay the Earnest Money @ 0.50% (Half Percent) value of the offered quantity of Tender in the form of BG as per the Annexure – IV (A) enclosed with tender documents having validity of 120 days from opening of tender. Interest shall not be allowed on EMD.

However, bidders from the following categories are exempted from payment of earnest money deposit.

- 1) All Government and semi Government institutions under Govt. of Maharashtra and Zilla Parishad in Maharashtra and fully owned undertaking of any State Govt. and Govt. of India only for the items manufactured by such institutions.
- 2) Micro and Small Enterprises registered under Micro, Small and Medium Enterprises Development Act-2006 only for the items mentioned in their permanent registration certificate at the time of vendor registration.
- 3) The bidder registered with N.S.I.C. and those who have attached valid N.S.I.C. Registration Certificate for the items mentioned in their permanent registration certificate at the time of vendor registration.

The benefits mentioned in (1) to (3) above shall be available only to those items approved during the registration process and subsequent updates in registration up to the date of submission of this tender.

Exempted bidders should upload a latest valid certificate issued by any approved body of 'Ministry of Small & Medium Enterprises' (MSME) such as 'National Small Industries Corporation' (NSIC) or 'District Industries Centre' (DIC) for EMD exemption.

- i. Bidder should upload the Scanned copy along with the Bid documents on E-Tender website. However, Bidder will have to submit the Bank Guarantee to the MSEDCL on or before the last date of Submission of Tender.
- ii. Any tender not accompanied by the requisite Earnest Money Deposit (EMD) shall be rejected and shall not be considered for evaluation.
- iii. The bid security of the successful bidder shall be returned after (i) acceptance of LOA by the bidder and (ii) the contract performance security is furnished by the bidder and accepted by the owner.
- iv. Unsuccessful bidder's bid security will be discharged/returned as promptly as possible.
- v. The bid security may be forfeited:
 - (a) If the bidder withdraws its bid, except that written notice of the withdrawal of bid is received by the employer prior to the deadline for submission of bids; or
 - (b) If the bidder does not accept the correction of its bid price, pursuant to Tender Conditions; or
 - (c) if the bidder is determined, at any time prior to award of contract, to have engaged in corrupt, malpractice or fraudulent practices in competing for the contract; or
 - (d) In the case of a successful bidder, if it fails within the specified time limit to:
 - (i) Sign the Contract Agreement, or
 - (ii) Furnish the required contract performance security
- vi. No interest shall be payable by the owner on the above bid security.

- vii. MSEDCL will not entertain any request for adjusting the EMD from the bidder's due/running bills or from the EMD/Security Deposit of any other tender participated by the bidder.
- viii. Offers received without Tender Fee and EMD are liable for rejection.

4.1 Confirmation on submission of documents & Mandatory requirements

A summary sheet confirming whether all documents/requirements have been met along with page reference to where in the Bid have compliance to these requirements which have been described / included should be furnished by the bidder (Refer Annexure - X):

4.2 Technical and Commercial Bid

This part of the bid consists of all the documents/ requirements except the price bid schedule Annexure – VI.

Note: submitting the bid to the e-tender web site confirms compliance of all the commercial conditions by the bidder.

4.3 Price Bid

The Price Bid should be submitted as per (Annexure – VI).

The bid shall contain no erasures or overwriting, except to correct errors made by the Bidder, in which case the person or persons signing the bid shall initial such corrections. Price should be quoted in number & words. In case of discrepancy and or difference in the value between the Quoted price in Number and as expressed in words, lower of the two/beneficial to MSEDCL shall be considered .

5.0 GENERAL BID INSTRUCTIONS

5.1.1 Intent of Bid Specification

The intent of this bid specification is to enter into single contract covering completely the scope of work specified in the accompanied specification forming completely coordinated and engineered package, all in accordance with the specifications as detailed out in the various sections of this bid document. MSEDCL in order to implement the project will be entering into single responsibility contract with the successful bidder. Bids not covering the entire scope of work as detailed in the Bid Specification will be treated as non-responsive and hence rejected.

5.1.2 Conflict of Interest

- i. Each Bidder shall submit only **one bid** for each contract (Tender). A bidder who submits or participates in more than one bid for same tender will be disqualified.
- ii. All bidders found to be in conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in a bidding process if they:
 - a. Have controlling shareholders in common; or
 - a. Receive or have received any direct or indirect subsidy from any of them; or
 - b. have the same legal representative for purposes of a bid; or
 - c. have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on a bid of another bidder, or influence the decisions of the Employer regarding the bidding process; or
 - d. submit more than one bid for any particular contract package in the bidding process. This however does not limit the participation of subcontractors in more than one bid or as bidders in one bid and subcontractors in other bids simultaneously; or
 - e. participated as a consultant in preparing the design or technical specifications of the goods and related services or works that are the subject of a bid.

For verification of conflict of interest, a copy of Articles of Association & Memorandum of Association in case of company & in case of partnership firm, a copy of partnership deed is required to be submitted by bidders along with bid.

5.1.3 Compliance to MSEDCL Ethical Standards

MSEDCL attaches top most priority to adherence to the highest ethical standards in all its transactions and expects the same from all entities it enters into any relationship with.

Accordingly, it expects every Bidder to observe the highest standard of ethics and integrity during the bidding process and if successful, during all stages of the project. If a bidder is found to have indulged in any corrupt or fraudulent practice or in any practice which is not in conformity with the highest ethical standards, then the bid will stand rejected. In such a case, MSEDCL may even go to the extent of black-listing the bidder and barring it from responding to any future enquiries / tenders floated by it.

To ensure uniformity in understanding of corrupt and fraudulent practices between MSEDCL and the bidders, the same has been defined below:

- a) The term 'corrupt practice' means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; and
- b) The term 'fraudulent practice' means a misrepresentation of facts in order to influence procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at

artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.

- c) By signing the Bid Forwarding Letter, the Bidder represents that for the software & services it supplies, it is the owner of the Intellectual Property Rights. Willful misrepresentation of these facts shall be considered a fraudulent practice without prejudice to other remedies that the Purchaser may take.

5.1.4 Important Notes

The Bidder shall note the following:

- i. Bid documents are not transferable.
- ii. Not more than one bid for the work shall be submitted by one Bidder or one firm of Bidders.
- iii. If the Bidder deliberately gives wrong information in his bid to create circumstances for the acceptance of its bid, the Owner reserves the right to reject such bid and/or cancel the order if placed.
- iv. Bid documents submitted by the Bidder shall become the property of the Owner and the Owner shall have no obligation to return the same to the Bidder.
- v. Bid must cover the entire scope of work (as a full package) as specified in this tender document.
- vi. Bid covering partial scope of work shall not be acceptable.

5.1.5 Bidder to inform himself fully:

- i. The Bidder shall make independent enquiry and satisfy himself as to all the required information, inputs, conditions and circumstances and factors which may have any effect on its bid price and also on the execution of work covered under these specifications and documents. In assessing the bid it is deemed that the Bidder has inspected and examined the site conditions and its surroundings, examined the laws and regulations in force in India, the transportation facilities available, the conditions of roads, bridges, ports, etc. for unloading and/or transporting heavy pieces of material and to have based its equipment size and fixed its price taking into account all such relevant conditions and also the risks, contingencies and other circumstances which may influence or affect the execution of the works as specified in these bid specification.
- ii. In their own interest, the Bidders are requested to familiarize themselves with the Income Tax Act, the Companies Act, the Customs Act and all other related acts and laws prevalent in India. The Owner shall not entertain any request for clarifications from the Bidders regarding such local laws and the conditions. However, the owner shall direct the bidder from where to obtain such assistance provided the request for such assistance is received well in advance. However, non-receipt of such information shall not be a reason for the bidder to request for extension in opening date of the bid. The Bidder shall understand and agree that before submission of its bid all such factors, as generally brought out above, have been fully investigated and considered while submitting the bid. No claim for financial adjustment to the contract awarded under this specification and documents shall be entertained by the owner. The Owner shall also not permit any change in time schedule or any financial adjustment arising thereof which are based on lack of clear information for such site conditions, laws and regulations and other related information and/or its effect on the price quoted in the bid.
- iii. Availability of Acts & Regulations: The various acts and regulations referred in these documents are normally available for sale on the following address:

Deputy controller, Public Department, Govt. of India, New Delhi, 110006, INDIA

OR

With leading authorized booksellers

5.1.6 Interpretation of Bid Documents

If any is in doubt as to the true meaning of any part of the bid document or scope of work to be executed, he shall at once submit a written request in English language for clarification or interpretation of the doubt in question. Such request should reach the owner not later than 4 days prior to the date set for submission of the bids.

This written request shall be submitted in triplicate to MSEDCL on the following address:

Chief Engineer (MMD)

Maharashtra State Electricity Distribution Co. Ltd. "Prakashgad",
First Floor, Prof. Anant Kanekar Marg, Station Road, Bandra (East),
Mumbai 400 051 (INDIA)

Appropriate interpretation shall be given in the form of a supplementary notice which will be updated on the website <http://www.mahadiscom.in>. MSEDCL shall respond to any request for clarification of the Bid Documents, which it receives not later than 4 days (four) prior to the deadline for submission of bids prescribed by MSEDCL. No oral or other interpretation shall be considered as binding on MSEDCL.

5.1.7 Amendment of Bidding Documents

- i. At any time prior to the deadline for submission of bids, the Owner may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the bidding documents by amendment.
- ii. The amendment shall be published on the website www.mahadiscom.in and shall be binding on the bidders.
- iii. In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the Owner may, at its discretion, extend the deadline for the submission of bids.

5.1.8 Cost Incurred in Responding to Tender

MSEDCL will not be responsible or liable for any costs being incurred by individual Bidders in preparing their response to this Tender nor will it be under any obligation to reimburse the same or any part thereof to any Bidder. Each Bidder must bear all costs being incurred by it in responding to this Tender. MSEDCL will also not be responsible for providing any facility or infrastructure to any bidder to facilitate its preparation of its bid.

5.1.9 Language, Font Size etc.

The bid must be prepared in English language only. All supporting documents submitted as a part of bid must be in English language. Further, all communication with respect to the bid including any accompanying document, must be in English language only. Clarifications sought on the Tender Document must also be in English. While the Bidders are free to submit their response in color, the text in both the original and the copies of the Bid must be black in color, font of size not less than 10.

5.1.10 Bid Validity Period

All bids, not rejected for any other reason, will remain valid for a period of 180 days after the date of opening of the technical bid prescribed in the Tender Document or as communicated by MSEDCL. MSEDCL reserves the right to reject a bid which is not valid for the prescribed period of 180 days as non-responsive, without any explanation.

5.1.11 Extension of Period of Bid Validity

In exceptional circumstances, MSEDCL may request all the Bidders consent to an extension of the period of validity of their respective bid. The request and the response thereto will be made in writing.

Extension of validity period by the Bidder must be unconditional. The bid EMD provided in the form of BG will also have to be accordingly extended. A Bidder will have the right to refuse the request without forfeiting the bid security. A Bidder granting the request will not be permitted to modify his bid.

5.1.12 Date for Submission of the Bid

a) Deadline for Submission of Bid

The tender is to be submitted online on or before the due date and time for submission of the bid on the MSEDCL e-tendering website. It is advisable to submit the digitally signed bids sufficiently in advance of due date and time so as to avoid last minute trafficking at server. The prospective bidder should be well aware about the online submission of the bid. Any complaint for delay in submission of the bid due to any technical reason will not be entertained.

MSEDCL reserves the right to reject any or all tenders at our discretion without assigning any reason whatsoever.

b) Extension of Bid Submission deadline

MSEDCL may, at its sole discretion, decide to extend this deadline for submission of Bids. In such a case, all rights and obligations of MSEDCL and Bidders previously subject to the deadline will thereafter be subject to the new deadline.

c) Bids Received Late

As this is e-Tendering Process, the bidder will not be able to upload their bids after the expiry of due date & Time. Any bid received by MSEDCL after the expiry of the specified deadline for submission of bids will be considered as rejected. The Bidders must take all responsibility of submitting the Bids within the prescribed deadline. MSEDCL will not accept any excuse of non-receipt / non-delivery/non-uploading of the Bids.

5.2 EVALUATION OF BID/AWARD OF CONTRACT

5.2.1 Opening of Bids

MSEDCL shall open the bids at its office located at the address mentioned below:

Chief Engineer (MMD)
Maharashtra State Electricity Distribution Co. Ltd. "Prakashgad",
First Floor, Prof. Anant Kanekar Marg, Station Road, Bandra (East),
Mumbai 400 051 (INDIA)

If any change is there in address the same will be informed to bidder well in advance. Bids received before the dead line of the submission of the bid will be opened on the date and time of opening as indicated in Invitation for Bid. Bidder may view the Bid Opening Online on the e-Tendering Website. Bidders wishing to be present at the time of such opening may send their duly authorized representative. Maximum of 2 persons per bidder shall attend. Their signatures shall be obtained in a register evidencing their presence at the time of opening & certifying that all bids submitted were opened.

The bids shall be opened in the following sequence:

1. The Tender Fee & EMD is verified first. The bids of those bidders who have not paid the Tender fee or EMD will not be opened and evaluated further.
2. The Technical bid will be opened online on e-tendering website on due date.
3. Price Bid will be opened in online on e-tendering website after completion of the Evaluation process of Technical Bid and the date & time will be informed to the technically qualified bidders in advance.

During the process of technical evaluation, MSEDCL may require the technical presentation from the bidders which would also be the part of evaluation. If the MSEDCL is not satisfied with the proposed solution of the Bidder, then MSEDCL reserves the unconditional & undisputed rights to disqualify the Bidder from Tendering Process.

The purchaser will open the Price Bids (as defined in Tender Clause) of only those Bidders who qualify in technical bid evaluation. The date, time and place for opening the Price Bids will be communicated to the technically qualified bidders. The Bidders may attend the opening or view the Bid Opening Online on the e-Tendering Website.

Bids or modifications thereto may be rejected if they are not addressed as prescribed in the Tender Document. Bids may be rejected outright if it is not accompanied by the prescribed Bid security. Bids rejected during the bid opening phase will not be considered for further evaluation.

MSEDCL may at its sole discretion, seek clarification from the bidders to assist in the evaluation, comparison and an examination of bids. The request for clarification and the response will be in writing. If the response to the clarification is not received before the expiration of deadline prescribed in the request, MSEDCL reserves the right to make its own reasonable assumptions at the risk and cost of the Bidder.

5.2.2 Deviations

No deviation to this tender document is allowed. The bidder has to submit the Annexure – VII ‘**No Deviation Form**’.

5.2.3 Alternative Offer

No alternative offer will be accepted.

5.2.4 Preliminary Examination of Bids

The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required securities (EMD amount) have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. The Purchaser will ensure that each bid is from an eligible Bidder.

Arithmetical errors will be rectified on the following basis.

If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected.

If there is a discrepancy between words and figures, lower of the two/beneficial to the MSEDCL shall be considered. If a Bidder does not accept the correction of errors, its bid will be rejected and its bid security (EMD) may be forfeited.

The Purchaser may waive any minor nonconformity, or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

Prior to the detailed evaluation, the Purchaser will determine whether each bid is complete, and is substantially responsive to the Bidding Documents. For the purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions, and specifications of the Bidding Documents without material deviations, exceptions, objections, conditionality or reservations. A material deviation, exception, objection, conditionality, or reservation is:

1. One that limits in any substantial way the scope, schedule, quality, or performance of the desired SUPPLY, INSTALLATION& FMS ACTIVITY FOR POWER QUALITY METER; or
2. One that limits, in any substantial way that is inconsistent with the Bidding Documents, the Purchaser rights or the successful Bidder's obligations under the Contract; and

3. Acceptance of which would unfairly affect the competitive position of other Bidders who have submitted substantially responsive bids.

If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the nonconformity. The Purchaser's determination of bid responsiveness will be based only on the contents of the bid submitted.

5.2.5 Evaluation and Comparison of Bids

The evaluation of responsive bids shall be done in 2 stages:

a) STAGE-I: RESPONSE TO QUALIFYING REQUIREMENTS

These are mandatory requirements to be met by the Bidder. Only those bidders who meet all the mandatory requirements as provided in this document shall be considered for stage II evaluation.

b) STAGE – II: EVALUATION OF THE PRICE BID

Bidders who qualify in the Stage I of evaluation will be considered for stage II evaluation and Price Bids will be opened only for these bidders.

The lowest bid (L-1) will be arrived by considering the package cost of (A)+(B)+(C)+(D)+(E) of Annexure VI and the bidder whose bid is lowest, will be considered as successful bidder L-1 bidder i.e. L-1 will be arrived as per package cost.

5.2.6 Contacting the Purchaser

- i. From the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Purchaser on any matter related to the bid, he shall do so in writing.
- ii. If a Bidder tries to influence the Purchaser directly or otherwise, interfere in the bid evaluation process and the Contract award decision, his bid will be rejected.

5.2.7 Purchaser's Right to accept or Reject Any or All Bids

- i. The Purchaser reserves the right to accept or reject any bid or to annul the bidding process and reject all bids at any time prior to Contract award, without thereby incurring any liability to the Bidders.
- ii. The Purchaser reserves the right to negotiate with the Bidder who becomes eligible for award of the contract as per Tender conditions.
- iii. MSEDCL reserves the right to reject any or all the price bids or Tender at its own discretion without assigning any reason whatsoever.

5.2.8 Notification of Award

- i. Notwithstanding anything contained in this document, MSEDCL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders the grounds for the MSEDCL's action.
- ii. Subject to above clause, the owner shall award the contract to the successful bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid provided further that the bidder is assessed to be qualified to satisfactorily perform the contract.
- iii. Notification of award of contract shall be made in writing through a 'Notice of Award', i.e. Letter of Award to the successful Bidder. This letter of award may be in writing by registered letter or by cable or FAX, to be confirmed in writing by registered letter or courier service or by speed post that its bid has been accepted.
- iv. Till such time the formal contract is signed, the letter of award issued by the owner to the successful bidder and its acceptance by the bidder shall be construed as a contract document and conditions of contract contained in these documents shall become applicable.

5.2.9 Signing Of Contract

- i. The successful bidder after submission of contract performance guarantee and its acceptance by the owner shall have to sign contract agreement with the Owner within fourteen (14) calendar days from the date of Letter of Award. This agreement shall be signed at the office of the owner in Mumbai on a date and time to be jointly decided.
- ii. The contractor shall send one copy of the final draft agreement to the Owner for his scrutiny and approval within fourteen days (14) of issue of letter of award by the Owner. The contractor shall sign the Form of Contract Agreement on a suitable value stamp paper (non-judicial) issued in Maharashtra and returns it to owner.
- iii. The Contractor shall provide, before signing of the contract, appropriate power of Attorney and other requisite materials. The contractor shall provide free of cost to the Owner all the engineering data, drawings and descriptive materials submitted with the Bid, in at least six (6) copies to form a part of the contract, immediately after issue of Letter of Award accepting the bid.
- iv. All charges for preparing the contract documents including legal fee, stamp fee (applicable as per Maharashtra Stamp Act) etc. shall be borne by the successful Bidder. The contract shall be signed in two original. One to be retained by the owner and one by the bidder. After signing of the contract, the contractor shall furnish to the owner 3 true copies of the signed contract agreement duly bound.
- v. If the successful Bidder fails to sign the contract, the same shall constitute sufficient ground for the annulment of the award of work and also the forfeiture of contract performance guarantee/security, in which event the owner may make the award to the next lowest evaluated responsive bidder or call for new bids.
- vi. All the conditions given in this document shall form the part of the contract. Based on the information submitted by the bidder in response to the instruction to bidder additional clauses may also have to be incorporated and shall be mutually agreed to.

5.2.10 Contract Performance Security

- i. The successful bidder shall provide to the owner within fourteen (14) days of issue of letter of intent, the contract performance guarantee as per the provisions of the clause mentioned in this document.
- ii. The contract performance security shall be denominated solely in Indian Rupees, and shall be in the form of an unconditional and irrevocable Bank Guarantee issued by a Nationalized or Scheduled Bank.

5.3 Check List

- i. The bidders are requested to go through carefully the instructions for preparation of their bids. Conditions elaborated in "General Conditions of Contract" and "Special Conditions of the Contract" may be borne in mind while bid preparation. The bid shall fully meet the technical requirement specified in this tender document.
- ii. The bidders may depute their representative to visit the site to get any additional information and to check the site conditions personally.
- iii. The bidder may submit additional information, which in his opinion shall help the owner to evaluate the bid. Bidder shall use continuation sheets wherever necessary.
- iv. The Bidders are requested to duly fill in the check list enclosed with Bid (Annexure – X). This check list gives only certain important items, to facilitate the bidder to make sure that the necessary data/information is provided by the Bidder in its proposal. This, however, does not relieve the bidder of its responsibility to make sure that his proposal is otherwise complete in all respects.

5.3.1. Bid Data Sheet

1. The Chief Engineer Material Management Department (MMD), on behalf of Maharashtra State Electricity Distribution Company Limited (the Employer), hereby invites sealed bids from eligible bidders.
2. Entire bidding document is available online on <http://etender.mahadiscom.in/eatApp/> as per date indicated. Any changes in the Bid Schedule, corrigendum etc. shall also be notified via MSEDCL's website. Prospective bidders are therefore requested to regularly check the website for any updates.
3. **Tender Cost: Rs. 60.69 Crores**
4. **Tender Fee:** Rs 25,000/-+ 18% GST
The bidder should submit non-refundable Bid Fee of Rs 25,000/-+ 18% GST paid through online payment only, prior to the dead line for submission of bids as per the procedure led by the MSEDCL.
5. **Bid Security:**
The bid must be accompanied with Bid Security for an amount equal to 0.5% of offered quantity for covering the entire scope of work. The bid security shall be denominated in Indian Rupees only.

**THE CHIEF ENGINEER
(Material Management Dept.)
"Prakashgad" First floor, A.K.Marg,
Bandra(E),Mumbai-400051.
E-mail- cemmcmsedcl@gmail.com**

6. GENERAL CONDITIONS OF CONTRACT

6.1 DEFINITIONS

Definitions: In the contract (as hereinafter defined) the following words and expressions shall have meaning hereby assigned to them except where the context otherwise requires.

- i. "EMPLOYER" or "Owner" or "Purchaser" or "Principal" or "MSEDCL" means Maharashtra State Electricity Company Limited having its Registered Office at Prakashgad, Bandra (East), Mumbai 400051 and includes Employer's representatives or successors or assigns. Employer's representatives include "Project Manager".
- ii. "Project Manager" or "Project Coordinator" means the person appointed by MSEDCL in the manner provided in Tender to perform the duties delegated by MSEDCL.
- iii. "Manager" means any assistant of the Project Manager or any other employee or agent appointed from time to time by the EMPLOYER or the Project Manager to perform the duties related to this contract.
- iv. 'Site' shall mean the locations and places wherever business activities are conducted by the EMPLOYER.
- v. "Contractor" or "Supplier" or "Vendor" or "Bidder" or "SUPPLY, INSTALLATION& FMS ACTIVITY FOR POWER QUALITY METER Bidder" or "System Integrator" (SI) shall mean whose tender has been accepted and shall include his/her/its/their heirs, executors, administrators, legal representatives/ successors/assigns and his/her/its/their Indian Agents approved by the EMPLOYER. SI/Bidder can be a company or a corporation and is the agency who provides all necessary services for the successful implementation of the project deliverables. SI/Bidder must be a single entity. No Consortium shall be allowed.
- vi. "Party" means the Owner or the Vendor, as the case may be and parties mean both of them.
- vii. "Successful Bidder" Successful Bidder means, the bidders whose bid has been accepted meeting MSEDCL's requirement in all respects and stands Lowest among acceptable bids.
- viii. "Contract" or "Work Contract" or "Work Order" means invitation to tender, instructions to Bidders, tender with all the enclosures thereto, articles of agreement, General conditions of Contract, Special conditions of Contract, specifications, price schedule, diagrams/drawings together with the letter of intent / contract itself (Work Order / Purchase Order) and other documents and correspondence specifically indicated therein.
- ix. "Scope" means "Scope of product vendor, Implementation Partner & service provider as covered in Section II" of this document, which forms part of these documents
- x. "GCC" means General Conditions of Contract and "SCC" means Special Conditions of Contract which form part of these documents
- xi. "Tender Specification" shall mean the GCC, SCC, SCOPE as mentioned at Section 2, Instructions to Bidders read with notice to inviting tender and subsequent clarification if any furnished by the EMPLOYER for the purpose of submitting the offer by the Bidder.
- xii. "CC" means the Conditions of Contract.
- xiii. "SUPPLY, INSTALLATION& FMS ACTIVITY FOR POWER QUALITY METER" covers the entire scope of this tender document.
- xiv. "Notice in Writing" or "Written Notice" as per clause 4.2 Notices.
- xv. "Schedule" or "Work Schedule" shall mean the accepted schedules between the Bidder and the EMPLOYER forming part of the contract.

- xvi. "Letter of Intent (LOI)/ Notice of award/ Letter of Award (LOA)" means intimation from the EMPLOYER by a letter / fax / email to the Bidder that his tender has been accepted in accordance with the provisions contained in that letter / fax / email.
- xvii. "Contract Price" means the sum indicated in the LOI subject to such additions thereto or deductions there from as may be made under the Provisions hereinafter contained
- xviii. "Date of award of contract" shall mean the date of issue of Letter of Intent or the date of issue of acceptance of tender or date of contract whichever is earlier.
- xix. "Approval of the EMPLOYER" shall mean the written approval by the EMPLOYER or his authorized representative of a document, a diagram / drawing or other particulars of matters in relation to the contract.
- xx. Words importing persons shall include firms, companies, corporations, associations or body of individuals whether incorporated or not. Words importing masculine gender or singular number shall also include the feminine gender and plural number and vice-versa where the contract so requires or permits.
- xxi. The contract and all correspondence between the EMPLOYER and the Bidder shall be in English language.
- xxii. 'In charge" of Bidder is a person from the Implementation Partner/System Integrator appointed by Bidder. He will be deemed as authorized agent of the Bidder.
- xxiii. The headings to various clauses of this contract shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof of the contract.
- xxiv. "Technical Requirements" mean the requirements mentioned & referred in the Scope of Work given in Section II.
- xxv. "Implementation Schedule" means the Implementation Schedule documented in the Agreed and Finalized Project Plan.
- xxvi. "Bidding Documents" refers to the collection of documents issued by the MSEDCL to instruct and inform bidders of the processes for bidding, selection of the winning bid, and Contract formation, as well as the Contractual conditions governing the relationship between the MSEDCL and the Bidder .
- xxvii. Bidder's Representative" means any person nominated by the Bidder and named as such in the Contract Agreement and approved by the MSEDCL in the manner provided Tender (Bidder 's Representative) to perform the duties delegated by the Bidder .
- xxviii. "System" or "Subsystem" means any application component, developed application or module to meet the technical requirements that may be supplied, installed, tested, and commissioned individually before Commissioning of the entire SUPPLY, INSTALLATION& FMS ACTIVITY FOR POWER QUALITY METER.
- xxix. "Services" means all technical, logistics, management, and any other Services to be provided by the Bidder under the Contract to supply/ develop, install, implement, customize, integrate, and make operational the proposed SUPPLY, INSTALLATION& FMS ACTIVITY FOR POWER QUALITY METER. Such Services may include, but are not restricted to Installation, Commissioning, Go-Live, testing and Training.
- xxx. "The Project Plan" means the document to be developed by the Bidder and approved by MSEDCL based on the requirements of the Contract and the Development and Implementation Plan included in the bid. For the sake of clarity, "the Agreed and Finalized Project Plan" refers to the version of the Project Plan approved by the MSEDCL. The project plan may be changed/ modified during the course of the project. Should the Project Plan conflict with the Contract in any way, the relevant provisions of the Contract, including any amendments, shall prevail.
- xxxi. "Materials" means all the deliverables as per the agreement to be provided to MSEDCL under the Contract.

- xxxii. "Intellectual Property Rights" means any and all copyright, moral rights, trademark, patent, and other intellectual and proprietary rights, title and interests worldwide, whether vested, contingent or future including without limitation all economic rights and all exclusive rights to reproduce, fix, adapt, modify, translate, create derivative works from, extract or re-utilize data from, manufacture, introduce into circulation, publish, distribute, sell, license, sublicense, transfer, rent, lease, transmit or provide access electronically, broadcast, display, enter into computer memory, or otherwise use any portion or copy, in whole or in part, in any form, directly or indirectly, or to authorize or assign others to do so.
- xxxiii. "Offered Product for evaluation purposes" means the product offered by the vendor or its version predecessors.
- xxxiv. "Delivery" means delivery of different items at employer's site as per the scope given in Tender.
- xxxv. "Installation" means that the System or a Subsystem installed on the hardware and made available for Commissioning as provided in Tender.
- xxxvi. "Day" means calendar day of the Gregorian calendar.
- xxxvii. "Week" means seven (7) consecutive Days, beginning the day of the week as is customary in the India.
- xxxviii. "Month" means calendar month of the Gregorian calendar.
- xxxix. "Year" means a period of twelve (12) consecutive Months.
 - xl. "Effective Date/ Kick-off Date" means the date of signing of the Contract Agreement, for the purpose of determining the Delivery, Installation, and Acceptance dates for the "SUPPLY, INSTALLATION& FMS ACTIVITY FOR THREE PHASE POWER QUALITY METER".
 - xli. "Contract Period" is the time period during which this Contract governs the relations and obligations of the MSEDCL and Bidder in relation to the SUPPLY, INSTALLATION& FMS ACTIVITY FOR THREE PHASE POWER QUALITY METER."

6.2 NOTICES

Any notice, request or consent required or permission to be given or made pursuant to this contract shall be in writing. Any such notice, request or consent shall be deemed to this contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person addressed to an authorized representative of the party with whom the communication is, or were sent by registered mail, telex, telegram or facsimile to such Party at the address specified in the clause of submission of proposal.

6.3 INTERPRETATION

- i. Language: All Contract Documents, all correspondence, and communications to be given shall be in English and the Contract shall be construed and interpreted in accordance with that language.
- ii. If any of the Contract Documents, correspondence, or communications are prepared in any language other than English, the translation of such documents, correspondence, or communications shall prevail in matters of interpretation. The originating party, with respect to such documents, correspondence, and communications, shall bear the costs and risks of such translation.
- iii. Headings: The headings and marginal notes in the CC are included for easy reference and shall neither constitute a part of the Contract nor affect its interpretation.
- iv. Persons: Words importing persons or parties shall include firms, corporations, and government entities.

- v. Entire Agreement: The Contract constitutes the entire agreement between the MSEDCL and Bidder with respect to the subject matter of Contract and supersedes all communications, negotiations, and agreements (whether written or oral) of parties with respect to the subject matter of the Contract made prior to the date of Contract.
- vi. Amendment: No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party to the Contract.
- vii. Severability: If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable such prohibition, invalidity, or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

6.4 RELATIONSHIP AND LIMITED AUTHORITY

- i. The Bidder shall not have, nor shall he represent himself as having, any authority to commit the Board to any contract, agreement, or other legal commitments in the name of or binding on the Board or to pledge or extend credit in the name of the Board. The Bidder shall perform the scope and services hereunder as an independent Bidder and not as an employee, agent, partner or joint venture partner of the Board.

6.5 OBLIGATIONS OF THE SUPPLY, INSTALLATION & FMS ACTIVITY FOR THREE PHASE POWER QUALITY METER

i. GENERAL

Standard of Performance

The bidder shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisor to the Owner.

ii. CONFIDENTIALITY

The Bidder and their Personnel shall not, during the term and within two years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the services, this contract or the Owner's business or operations without the prior written consent of the Owner.

iii. DISCLOSURE

The Bidder shall agree that the MSEDCL has the right to fully disclose this contract and the identity of the Bidder, if such disclosure is required by legal authority or necessary to satisfy lender(s) information requests in support of GoM approval process etc.

iv. INDEMNITY

The Bidder assumes responsibility for and shall indemnify and save harmless the EMPLOYER, from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court cost which are, or may be required with respect to any breach of the Bidder's obligations under the Contract, or for which the Bidder has assumed responsibility under the Contract, including those imposed under any contract, local or national and international law or laws, or in respect of all salaries, wages or other compensation of all persons employed by the Bidder in connection with performance of any work covered by the Contract. The Bidder shall execute and deliver such other further instruments to comply with all the requirements of such laws and regulations as may be necessary there under to confirm and effectuate the Contract and to protect the EMPLOYER.

The EMPLOYER shall not be in any way held responsible for any accident or damages incurred or claims arising there from during discharge of the obligations by Bidder under this contract.

v. Liability of the Bidder

Subject to additional provision, if any, the Bidder's liability under this contract shall be as provided by the Applicable Law

vi. Bidder's actions requiring owner's prior approval

The Bidder shall obtain the Owner's prior approval in writing before taking any of the following actions:

- i) Appointing or removing any member of the Personnel as are listed in their bid ("Bidder's Key Personnel")
- ii) Taking up a similar kind of project elsewhere during discharge of duties /obligations under this contract.

vii. Assignment And Subletting

The Bidder shall not transfer or sublet or assign the contract or any part thereof or any benefit or interest therein or there under. In the event of the Bidder contravening this condition, the EMPLOYER shall be entitled to place the contract elsewhere on the Bidder's account and at his risk and then the Bidder shall be liable for any loss or damage which the EMPLOYER may sustain in consequence or arising out of such replacing of contract.

viii. Patent Infringement

The Bidder shall protect, indemnify and save harmless the EMPLOYER, his customers and users of his products, against all liability, including cost, expenses, claims, suits or proceedings at law in equity or otherwise, growing out of or in connection with any actual or alleged patent infringement (including process patents, if any) or violation of any license and will defend or settle at the Bidder's own expense any such claims, suits or proceedings.

The EMPLOYER will notify the Bidder in writing of any such claim, suit, action or proceeding coming to his attention, giving authority and all available information and assistance for the Bidder's defense of the same. The Bidder shall appoint a counsel at his own expenses in consultation with the EMPLOYER to collaborate in the defense of any such claim, suit, action or proceeding.

ix. Reporting Obligations

The Bidder shall submit, to the Owner, the final project report along with the documents in the format as needed by the owner.

6.6 TERMINATION OF THE CONTRACT

Termination for Purchaser's Convenience: The Purchaser may at any time terminate the Contract for any reason by giving the Bidder a ninety days (90) notice of termination that refers to this Clause.

- i. Upon receipt of the notice of termination under above Clause, the Bidder shall either as soon as reasonably practical or upon the date specified in the notice of termination cease all further work, except for such work as the Purchaser may specify in the notice of termination for the sole purpose of protecting that part of the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS already executed, or any work required to leave the site in a clean and safe condition. In addition, the Bidder, subject to the payment specified in below Clause, shall deliver to
 - A. The Purchaser the parts of the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS" executed by the Bidder upto the date of termination;

- B. The extent legally possible, assign to the Purchaser all right, title, and benefit of the Bidder to the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY AND IMPLEMENTATION OF FMS" , or Subsystem, as at the date of termination, and, as may be required by the Purchaser;
 - C. The Purchaser all non-proprietary drawings, specifications, and other documents prepared by the Bidder as of the date of termination in connection with the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS.
- ii. In the event of termination of the Contract under above Clause, the Purchaser shall pay to the Bidder the payment for invoices submitted prior to the effective date of termination.

iii. Termination for Bidder's Default

- A. The Purchaser, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice of termination and its reasons therefore to the Bidder, referring to this Clause.
 - a. If the Bidder becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Bidder members are corporation, a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation), a receiver is appointed over any part of its undertaking or assets, or if the Bidder takes or suffers any other analogous action in consequence of debt;
 - b. If the Bidder assigns or transfers the Contract or any right or interest therein in violation of the provision of Tender Clause (Assignment and subletting);
 - c. If the Bidder, in the judgment of the Purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, including but not limited to willful misrepresentation of facts concerning ownership of Intellectual Property Rights in, or proper authorization and/or licenses from the owner to offer, the hardware, software, or materials provided under this Contract;
 - d. If the Tenderer, before contract award, has committed a transgression through a violation of any of the terms under contract agreement or in any other form such as to put his reliability or credibility as Tenderer in to question, the Principal is entitled to disqualify the tenderer from the tender process or to terminate the contract, if already signed for such reason;
 - e. If the tenderer, after the Contract award has committed a transgression through a violation of any of the tender terms or in any other form such as to put his reliability or credibility as Tenderer in to question, the Principal is entitled also to exclude the Tenderer / Contractor from future contract process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Tenderer / Contractor and the amount of damage. The exclusion will be imposed for a minimum of 6 months and a maximum of 3 years.
- B. If the Bidder:
 - a. Has abandoned or repudiated the Contract;
 - b. Has without valid reason failed to supply & installation and implementation of meter reading through DCU in project area as per Milestone (Annexure – XI) submitted by the bidder.
 - c. Has failed to submit minimum 75 % meter data/readings through DCU for consecutive three months period in the awarded project area.
 - d. Persistently fails to execute the Contract in accordance with the contract or persistently neglects to carry out its obligations under the Contract without just cause;
 - e. Refuses or is unable to provide sufficient Materials, Services, or labour to execute and complete the SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND FMS

in the manner specified in the Agreed and Finalized Project Plan furnished at rates of progress that give reasonable assurance to the Purchaser that the Bidder will implement as above solution in given area, then, the Purchaser may, without prejudice to any other rights it may possess under the Contract, give a notice to the Bidder stating the nature of the default and requiring the Bidder to remedy the same. If the Bidder fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then the Purchaser may terminate the Contract forthwith by giving a notice of termination to the Bidder that refers to this Clause.

- f. Upon receipt of the notice of termination, the Bidder shall, either immediately or upon such date as is specified in the notice of termination:
 - a. Cease all further work, except for such work as the Purchaser may specify in the notice of termination for the sole purpose of protecting that part of the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS" already executed or any work required to leave the site in a clean and safe condition;
 - b. Deliver to the Purchaser the parts of the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND FMS" by the Bidder up to the date of termination, subject to the receipt of payment stated in clause.
 - c. To the extent legally possible, assign to the Purchaser all right, title and benefit of the Bidder to the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND FMS IMPLEMENTATION" or subsystems as at the date of termination, Contract.
 - d. Deliver to the Purchaser all drawings, specifications, and other documents prepared by the Bidder as at the date of termination in connection with the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND FMSIMPLEMENTATION".
 - e. After termination of contract, infrastructure installed by the agency such as DCU, Gateways, Head End System (HES) etc. shall be handed over to MSEDCL. All hardware and software installed during the contract period will be treated as MSEDCL property.
- iv. The Purchaser may enter upon the site, expel the Bidder, and complete the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS" itself or by employing any third party. Upon completion of the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS" or at such earlier date as the Purchaser thinks appropriate, the Purchaser shall give notice to the Bidder that such Bidder's Equipment will be returned to the Bidder at or near the site and shall return such Bidder's Equipment to the Bidder in accordance with such notice. The Bidder shall thereafter without delay and at its cost remove or arrange removal of the Bidder's Equipment from the site.

6.7 FORCE MAJEURE

- i. If at any time during the continuance of the Contract, the performance in whole or in part by either party or any obligations under the Contract shall be prevented or delayed by reason of any war, hostilities, act of public enemy, civil commotion, sabotage, fire, floods, explosions, epidemics, quarantine restrictions and Acts of God (hereinafter referred to as 'Events') and provided notice of the happening of any of the above mentioned Event duly certified by Indian Chamber of Commerce in case of Indian Parties or International Chamber of Commerce, Paris, France in case of foreign parties) is given by either party to the other within fifteen(15) days from the date of occurrence thereof, the EMPLOYER shall have the right by reason of such Event to terminate the Contract without however affecting the right to any claim for damages on the Bidder in respect of such non-performance or delay in performance. However, in the event of the EMPLOYER having agreed, the services under the Contract shall be resumed after such Event has come to end/ceases to exist. Should one or both the parties be prevented from fulfilling their contractual obligations by a state of force majeure lasting continuously for a period of at least 6 months and the EMPLOYER not having terminated the Contract by that time, the two parties shall consult each other regarding the

further implementation of the Contract with the provision that if no mutually satisfactory arrangement is arrived at within a period of 3 months from the expiry of 6 months referred to above, the Contract shall be deemed to have expired at the end of the 3 months referred to above. The above mentioned expiry of the Contract will imply that both the parties have obligations to reach an agreement regarding the winding up and financial settlement of the Contract.

- ii. In addition to above, the situation arising because of theft of meters, meter burnt and damage at any time during the continuance of the Contract will be covered under force majeure clause subject to due verification by MSEDCL.

6.8 FAIRNESS AND GOOD FAITH

i. Good Faith

The parties undertake to act in good faith with respect to each other's rights under this contract and to adopt all reasonable measures to ensure the realization of the objectives of this contract.

ii. Operation of Contract

The parties recognize that it is impractical in this contract to provide for every contingency, which may arise during the life of this contract, and the parties hereby agree that it is their intention that this contract shall operate fairly as between them and without detriment to the interest of either of them.

6.9 SETTLEMENT OF DISPUTES

- i. The decisions, opinions, directions, certificates of valuation of the MSEDCL with respect to all or any of the matters under Tender clauses and special conditions of contract for the decision of which specific provisions have been made here of, which matters here in referred to as "excepted matters" shall be final and conclusive and binding on the parties hereto shall be without appeal.
- ii. Any notice to be given to the Bidder under the terms of these conditions shall be considered as duly served if the same shall have been delivered to, left for, or posted by registered post to the address of the Bidder at their registered office or address given in the tender. Similarly, any notice to be given to the EMPLOYER shall be considered as duly served, if the same shall have been delivered to, left for, or posted by registered post to the EMPLOYER'S office at Mumbai
- iii. The Agreement shall in all respects be construed and carried into effect and rights and liabilities of the parties hereto shall be regulated according to the laws of India.
- iv. Mutual Settlement of Disputes : Except where otherwise provided for in the contract, all questions and dispute relating to any matter directly or indirectly connected with this agreement shall in the first place be resolved through mutual discussions, negotiations, deliberation and consultations between both the parties.
- v. Conciliation: If the effort to resolve all or any of the disputes through mutual settlement fails, such disputes shall be referred to the conciliator to be appointed by the mutual agreement of both the MSEDCL and the Bidder. The conciliator shall make the settlement agreement after the parties reach agreement and shall give an authenticated copy thereof to each of the parties. The settlement agreement shall be final and binding on the parties. The settlement agreement shall have the same status and effect of an arbitration award. The venue of Conciliation shall be Mumbai, Maharashtra, India.
- vi. Arbitration: Any disputes, differences, whatsoever, arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this Contract shall be settled between the MSEDCL and the Bidder amicably as mentioned in Tender. If however, MSEDCL and the Bidder are not able to resolve their disputes / differences amicably as aforesaid the said disputes / differences shall be settled by Arbitration. The Arbitration

proceedings, in case of foreign Contractor shall be regulated and governed by the rules of Arbitration and Conciliation of International Chamber of Commerce, Paris. The venue shall be Mumbai, Maharashtra, India.

- vii. The arbitration proceedings in case of Indian Contractor shall be regulated and governed by Arbitration and Conciliation Act, 1996 and the statutory modification thereof to the said act if any. Each party shall appoint its arbitrator; the two arbitrators so appointed shall appoint a third arbitrator who shall be the presiding arbitrator. The Arbitral Tribunal shall give a reasoned award. The award made in pursuance thereof shall be binding on the parties. The arbitration shall be governed and regulated in all respect according to Laws of India. The venue shall be Mumbai, Maharashtra, India.
- viii. The further progress of any work under the contract shall unless otherwise directed by the EMPLOYER continue during the arbitration proceedings and no payment due or payable by the EMPLOYER shall be withheld on account of such proceedings. It shall not be open to arbitrator(s) to consider and decide whether or not such work shall continue during the arbitration proceedings.
- ix. The courts at Mumbai, Maharashtra, India shall alone have jurisdiction and the applicable laws shall be the Laws of India.

6.10 Policy & Procedure for Debarring of Agency from Business Dealings with MSEDCL

(...In addition to Tender and other conditions and relevant Law)

1. Scope:

- 1.1 MSEDCL reserves its right to debar any Agency from any business dealings with it, if such Agency is found to have committed deception, fraud or misconduct or any other act which is not in the interest of MSEDCL in the execution of contracts awarded or any of its action(s) fall into any such categories as laid down in this policy.
- 1.2 The provisions of this policy will be effective on investigations conducted or misconduct/irregularities noticed on the part of any Agency in all contracts awarded on or after the date of implementation of this policy.

2. Definitions:

In this policy, unless the context otherwise requires:

- 2.1 **Agency** shall mean Contractor / Supplier / Purchaser / Bidder/ Vendor/ MSEDCL approved sub-contractor of a Contractor to whom work has been awarded. It shall include, but not limited to, a public limited company or a private limited company, a firm whether registered or not, a proprietorship, any individual, a cooperative society or an association or a group of persons engaged in any commerce, trade, industry, or constituents of an unincorporated Joint Venture Company, etc.
- 2.2 **Bid/ Tender** shall mean an offer, proposal or quote for goods, services or works in response to solicitation issued for such goods, services or work by MSEDCL.
- 2.3 **'Competent Authority' and 'Appellate Authority'** shall mean the following :-

For Purchase Order (LOA) value up to & below 10 Cr., the Director Project / Director Operation shall be the 'Competent Authority'. The Chairman & Managing Director (CMD) shall be 'Appellate Authority' in respect of such cases.

For Purchase Order (LOA) value above 10 Cr., the Chairman & Managing Director (CMD) shall be the 'Competent Authority'. The Board of Directors shall be the 'Appellate Authority' in respect of such cases.

2.4 'Enquiring Committee' (EC) shall mean the following:-

The Committee comprising Chief Engineer (MM Dept), Chief General Manager (I/A) and Chief Legal Advisor shall be the Enquiring Committee

2.5 Debarring; - Business dealings with an agency may be debarred if it is considered not desirable to continue the business with the agency. It means action taken by the Competent Authority / Appellate Authority pursuant to this policy prohibiting agency from directly or indirectly performing any work for or otherwise participating in MSEDCL bid / tender including to prohibit agency from submitting a bid, having a bid considered, or entering into any work / contract during a specified period of time as set forth in debarment order.

2.6 'Purchase Order Issuing Authority (LOA)' & 'Vender Approving Authority(VA)': Shall mean the person(s) designated to act for and on behalf of MSEDCL for the discharge of his duties in execution of the Work / Project / Job / Role, and shall include but not limited to the Regional Director(s), Executive Director(s), Chief Engineer(s), Superintending Engineer(s), Executive Engineer(s), etc.

3. Grounds for Debarring:

3.1 Debarring from business dealings can be initiated against the Agency if involved or committed any of the following misconduct / irregularities:

- a) The Directors, Proprietors, Partners, Employee(s) or owner of the agency have been either jointly or severally guilty of malpractices such as fraud including but not limited to submission of fake or forged documents / certificates / guarantees, substitution of tenders, etc. in relation to its business dealings with the Government or MSEDCL, during the last five years.
- b) The business dealings with the agency have been debarred by any Ministry of GoI / GoM / state owned electricity distribution utility and still in force.
- c) The agency is found to have been in default in paying any dues resulting in incurring financial loss to the MSEDCL by virtue of an order and/or direction of any Statutory Authority or Court or Arbitration, etc. for making such payment in respect of the agency concerned.
- d) The agency is repeatedly found to be non performing in execution of 3 (three) or more contracts and / or in rectification of critical / major defects pointed out by MSEDCL or any person authorized by MSEDCL, in last 5 (five) years.

The grounds given above are only illustrative and not exhaustive. The Competent Authority may decide to debar an Agency according to the seriousness of the ground.

3.2 a) The Competent Authority shall decide depending upon the level of severity in defaults from the agency, the period of debarring. In case of major lapses and a criminal or fraudulent type of issues involved therein, the First Information Report (FIR) to Police Department shall be lodged.

- b) If any one or more Partner / Directors of any debarred Agency firm promotes or forms a new contracting firm or a sister-concern firm of the said debarred Agency, then it shall also be considered as a debarred firm.

4. Competent Authority (CA) and Appellate Authority (AA) for Debarment:

Considering the above mentioned grounds for Debarring from business dealings can be initiated against the Agency, after due scrutiny by the Purchase Order issuing authority (LOA) or Vender Approving Authority (VA) and shall serve upon the 'Show Cause Notice' for Debarring of the Agency after termination of contract is affected. For the purpose of debarment, the powers delegated to the following designated officers of MSEDCL as Competent Authority (CA) and as Appellate Authority (AA) for debarring of business dealings with the accused Agency.

Sr. No.	Purchase Order Issuing Authority (LOA) & Vender Approving Authority (VA)	Enquiring Committee (EC)	Competent Authority for Debarring (CA)	Appellate Authority for Debarring (AA)
1	Orders from Corporate Office	For orders below Rs. 10 Cr.	Director(Project) / Director (Operation)	Chairman & Managing Director (CMD)
		For orders above 10 Cr.	Chairman & Managing Director (CMD)	BOARD OF DIRECTORS

5. Powers of Competent Authority and Appellate Authority:-

- a) To investigate the matter in connection with the allegation of corrupt, fraudulent, coercive or collusive practices or illegal practice of agencies;
- b) To ensure timely and expeditious disposal of proceedings of debarment;
- c) Seek advice or opinion on specific issues.

6. Procedure:

The Purchase Order Issuing Authority (LOA) or Vendor Approving Authority (VA) of the concerned department on noticing any misconduct and / or irregularities as mentioned in clause 3.1 above, shall serve upon the 'Show Cause Notice for Debarring' after termination or closing of contract(s) stating therein the facts / reasons containing the allegation of misconduct or irregularities and the period of 14 days will be afforded to the agency to present their statement / submission in the form of reply in response to Show Cause Notice. In the event, non receipt of reply from the agency within the stipulated period, action as proposed will be proceeded with and no representation / submissions thereafter will be accepted. The copy of service return of notice will be kept and a confirmatory document through electronic mode is sine qua non.

- a. The Purchase Order Issuing Authority (LOA) or Vendor Approving Authority (VA) shall submit the duly recommended detailed proposal of debarring of Agency to the Competent Authority (CA) along with Show cause notice and reply, if any and para-wise justification to the reply to the Show Cause Notice submitted by the Agency, if any for consideration and order.
- b. The Competent Authority (CA) shall scrutinize the proposal and depending on merit of the case and after examining the material on record shall decide to proceed for enquiry or to close the case. In the event of exoneration of the Agency from debarring, the decision shall be conveyed to LOA or VA issuing authority and subsequently it shall be informed to Agency.
- c. If the Competent Authority (CA) arrives at the decision to proceed in the matter, then the complete case shall be handed over to the Enquiring Committee (EC). The Enquiring Committee shall in detail examine the materials on record, conduct the hearing and decide the case as per the principle of natural justice.

During the process of hearing, only the authorized representative of Agency will be permitted to represent the Agency and no Legal practitioner / Advocate shall be allowed to plead the case on its behalf.

- d. The Enquiring Committee shall submit its Report along with detailed findings within 30 days to the Competent Authority (CA).

The Competent Authority (CA) shall pass an appropriate order after examining the material on record.

- e. The decision of the Competent Authority (CA) shall be in the form of Reasoned Order, the period for which the debar would be operative shall be mentioned in the order and the same shall be

communicated to the LOA or VA issuing authority.

- f. The Purchase Order Issuing Authority (LOA) or Vendor Approving Authority (VA) shall then communicate the decision of debarment of business dealings along with the order of Competent Authority (CA) to the Agency.
- g. The procedure for debarment shall be completed within a period of three months from initiation of case by concerned authority.

The Reasoned Order will be communicated to the agency at its recorded address available with MSEDCL within 15 days of order issued by Registered post. In addition to it, the copy shall preferably be sent on the registered Email address of the Agency.

7. Period of Debarment:

The period for which an agency is debarred shall be clearly mentioned in the order. Period of debarment of business dealings shall be decided by the Competent Authority in exercise of its power delegated and would depend upon the seriousness of the cause. Debarment shall be up to the maximum period of five (5) years.

Provided further that in case the information / documents submitted by the agency is found to be false / forged at any point of time, MSEDCL shall have a right to recover from the agency the cost incurred in carrying out physical assessment for establishing veracity of such information / document including a penalty decided by the Enquiring Committee. If the agency fails to reimburse such cost and penalty to MSEDCL, the debarment period of the agency may be extended by the Enquiring Committee which shall not in any case exceed more than two (2) years but in any cumulative period for debarment the Agency shall not exceed five (5) years, in exceptional cases such period shall be up to five (5) years and the cumulative period for debarment of agency in such cases shall not exceed ten (10) years.

8. Consequences of Debarment:

Upon issuance of the order of debarment of an agency from future business dealings with MSEDCL, the debarred agency along with its Joint Venture Partner Firm shall not be allowed to participate in any future tender/s, during the debarred period. Further, in case the agency has already participated in the tender process and the price bid is not opened prior to issuance of the order of debarment of business dealings, its Techno Commercial Bid shall be rejected and Price Bid shall not be opened.

In the event the Price Bid of the participating agencies has been opened and the agency against whom the order of debarment of business dealings has been issued, the bid of the debarred agency shall be rejected even if he is found to be successful bidder, considering the agency as disqualified.

Provided the order of debarment of business dealings issued against any agency shall not override the rights of the debarred agency already engaged in executing any other contract(s) till its completion.

9. Withholding:

The Competent Authority (CA) may, depending on the severity of the case, withhold the business dealing with the agency till the report given by the Enquiring Committee from the date of initiation of proposal of debarment.

10. Appeal against the Debarment Order:

- a. The Agency, aggrieved by the order of debarment, may prefer an appeal before the Appellate Authority (AA), against the order of the Competent Authority (CA) specifying the grounds of appeal along with necessary documents.
- b. Such appeal shall be filed within one month from the date of receipt of the order of debarment of business dealing. The agency shall represent their case through authorized representative of its agency, and no service of legal practitioner shall be adopted.
- c. Purchase Order Issuing Authority (LOA) or Vendor Approving Authority (VA) shall submit all the original papers of the debar case to Appellate Authority (AA), along with the justification on points raised in appeal by debarred Agency.
- d. Appellate Authority shall admit the appeal and decide the appeal within 45 days from the filing of appeal. The agency may file any additional document/evidence before the Appellate Authority, if Appellate Authority permits.

- e. Appellate Authority shall pass appropriate Reasoned Order on appeal and communicate decision to the Purchase Order Issuing Authority (LOA) or Vendor Approving Authority (VA) through the Competent Authority (CA). LOA or VA Issuing Authority will then communicate appeal order to the Debarred Agency.

No appeal will lie to the Appellate Authority against the final order of the competent authority pursuant to the written consent of the agency.

Awaiting the decision of the competent authority, the debarring order passed by the competent authority shall remain effective till Appellate Authority takes a final decision in the matter.

The order of the Appellate Authority is final and binding.

11. Revocation of Debarment Order :

The order for debarment passed for certain specified period shall be deemed to have been automatically revoked on expiry of the specified period and it will not be necessary to issue a specific formal order of revocation.

An order of debarment for the reasons mentioned above may be revoked if accused has been wholly exonerated by Court of Law.

12. Interpretation :

The competent authority shall be responsible for the administration, interpretation, application and revision of this policy. The policy will be reviewed as and when needed.

13. Post Debarment Action:

The Competent Authority (CA) will ensure the following;

- a) Hosting at MSEDCL Website: The name of the Agencies with whom Business Dealings have been debarred shall be hosted at MSEDCL website by HO-IT Department, after confirmation of Debarment of the Agency.
- b) The Competent Authority shall ensure that the names of the debarred agency along with the names of Director, JV Partner, Owner of the debarred Agency is displayed on the MSEDCL website.
- c) The cancellation is activated for Online Login for e-Tendering website of MSEDCL for the debarred Agency Firm during the period of debarment.
- d) Copy of the order of debarring of the Agency shall be conveyed to all Utilities in India and Financial Institutions viz. REC, PFC, etc. and Ministry of Power of both GOM and GOI.

14. AMENDMENTS :

MSEDCL may introduce modification thereto through the amendment of its specific provision as the need arises and the amendment to this policy shall be applicable to the ongoing contract as well future contract.

SPECIAL CONDITIONS OF CONTRACT

Special Conditions of Contract (SCC) shall be read in conjunction with all the conditions specified in the General Conditions of Contract, scope for "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS", Instructions to tender read with notice inviting tender and any of their documents forming part of this tender where ever context so requires.

1: ORDER QUANTITY, DELIVERY SCHEDULE AND RST

- a] The L.O.A. will be issued for entire ordered quantity and same shall be considered as release order for entire quantity.
- b] The sample meters drawn from first lot and subsequent lot shall be sent for Random Sample testing to MSEDCL lab
- c] In case of failure of the sample meters in RST, then the balance ordered quantity shall stand cancelled & for the quantity already accepted against the order and used, deduction in price of 10% of the value of material supplied plus applicable taxes, if any shall be made

2: GUARANTEE

For Meter:

"The meter shall be guaranteed for the period of five years from the date of commissioning or five and half years from the date of dispatch whichever is earlier".

3: CONTRACT PERFORMANCE DEPOSIT

The contract performance deposit shall be an amount equal to 5% of the contract value in the form of unconditional & irrevocable BG and to be submitted after the first consignment is effected and when the payment thereof becomes due to the contractor.

Other Particulars

A. ROLE OF BIDDER

1. The Bidder has the overall responsibility as per the Scope mentioned at Clause -2 of this document.
2. The Bidder shall be responsible for timely provision of all resources, information, and decision making under its control that are necessary to reach a mutually agreed and Finalized Project Plan as per delivery schedule of scope of work. Failure to provide such resources, information, and decision-making may constitute grounds for termination.
3. The Bidder shall acquire in its name all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings that are necessary for the performance of the Contract.
4. For any of the communication solution proposed by the bidder, selection of service provider will be responsibility of the bidder.
5. The Bidder shall comply with all laws in force in India. The laws will include all national, provincial, municipal, or other laws that affect the performance of the Contract and are binding upon the bidder. The Bidder shall indemnify and hold harmless the MSEDCL from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the Bidder or its personnel, but without prejudice to Tender Conditions. The Bidder shall not indemnify the MSEDCL to the extent that such liability, damage, claims; fines, penalties, and expenses were caused or contributed to by a fault of the MSEDCL.
6. The Bidder shall provide the key personnel namely the Project Leader, Module Leaders, Quality Assurance personnel any Specialist/Analysts required as appropriate, need to have sufficient experience as per Tender Conditions in terms of relevance and number of years required to implement the "SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METER AND IMPLEMENTATION OF FMS". Should the profile of any personnel be not acceptable to the MSEDCL will require the Bidder to suitably replace such personnel. They are to be assigned to the project on full time basis.
7. If for any reason beyond the control of the Bidder, there arises a need to replace any personnel, the Bidder shall provide a replacement person of equivalent or better qualification and experience, subject to the written approval of the MSEDCL.
8. Neither the Bidder nor its Personnel shall during the term of this Contract, engage in any business or professional activities in India/ Abroad which would conflict with the activities assigned to them under this Contract.
9. The Bidder is responsible for performing and safely storing, timely and regular backups of its data and Software in accordance with accepted data management principles, except where such responsibility is clearly assigned to the MSEDCL elsewhere in the Contract.
10. The Bidder will have primary responsibility for the successful running and stabilization in accordance with Tender Conditions.
11. In case project gets delayed due to any reason attributed to Bidder, no additional payment shall be done.

B. ROLE OF MSEDCL

1. The MSEDCL shall co-operate to the Bidder for installation and commissioning of Power Quality Meters at its substations.
2. MSEDCL will issue identity cards to staff of the bidder.
3. The MSEDCL will designate appropriate staff for the training courses to be given by the Bidder.

C. PROJECT PLAN

1. In close cooperation with the MSEDCL and based on the Preliminary Project Plan included in the Bidder's bid, the Bidder shall develop a Project Plan encompassing the activities specified in the Contract.
2. The Bidder shall formally present to the MSEDCL the Project Plan in accordance with the Technical Requirements. The bidder has to specify the strategy and methodology with time frame and the synchronization of various phases of Project to ensure completion of Project in time. The Project plan shall also include a PERT chart describing the activities, resources required on the time for completion. The plan shall also bring out the critical areas needing continuous attention of the MSEDCL.
3. If required, the impact on the Implementation Schedule of modifications agreed during finalization of the Agreed and Finalized Project Plan shall be incorporated in the Contract by amendment, in accordance with Tender Conditions.
4. The Bidder shall undertake to supply, install energy meters and implement, integrate, commission AMR solution in accordance with the Agreed and Finalized Project Plan and the Contract.
5. The Progress and other reports specified shall be prepared by the Bidder and submitted to the MSEDCL in the format and frequency specified in the Agreed and Finalized Project Plan.

Changes to the Project Plan, if required, shall be made with the mutual consent of the MSEDCL and the Bidder.

D. PRODUCT UPGRADES

1. At any point during performance of the Contract, shall technological advances be introduced by the Bidder for Subsystems originally offered by the Bidder in its bid and still to be delivered, the Bidder shall be obligated to offer to the MSEDCL the latest versions of the available Subsystem having equal or better performance or functionality at the same or lesser unit prices, pursuant to Tender Conditions.
 2. During performance of the Contract, the Bidder shall offer to the MSEDCL all new versions, releases, and updates as well as related documentation and technical support services, within twenty eight (28) days of their availability from the Bidder to other clients of the Bidder in the MSEDCL's Country, and no later than twelve (12) months after they are released in the country of origin. In no case will the prices for this Software exceed those quoted by the Bidder in the Price Schedule form in its bid.
 3. During the contract period the MSEDCL may require the Bidder to provide at no additional cost to the MSEDCL all new versions, releases within twenty eight (28) days of their availability from the Bidder to other clients of the Bidder in the MSEDCL's country, and no later than twelve (12) months after they are released in the country of origin of the Software.
 4. The MSEDCL may at its discretion introduce all new versions, releases or updates of the Software provided that the new version, release, or update does not adversely affect the operation or performance. In cases where the new version, release, or update adversely affects the System operation or performance, or requires extensive reworking, the Bidder shall continue to support and maintain the version or release previously in operation for as long as necessary to allow introduction of the new version, release, or update. In no case shall the Bidder stop supporting or maintaining the version or release of the Software in operation, during the contract period. The MSEDCL shall use all reasonable endeavors to implement any new version, release, or update.
1. No unauthorized code: The Bidder shall not end any software that the MSEDCL is not licensed to use, unless the product is activated by a required license key. The Bidder shall also certify that all their products and updates as supplied to the MSEDCL shall be free from viruses, worms, Trojans, spy-ware etc.

E. GOVERNANCE LAW

1. This contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law. The laws applicable to this contract shall be the laws in force in India. The courts of Mumbai, India shall have exclusive jurisdiction in all matters arising under and on account of this contract.

F. GENERAL

1. There shall be no suspension of work on account of arbitration provided that the obligations of the MSEDCL and bidder shall not be altered by reasons of arbitration being conducted during the progress of Works. Neither party shall be entitled to suspend the work to which the dispute relates on account of arbitration.
2. The cost of arbitration shall be borne by the Implementation partner. The cost shall inter-alia include the fees of the arbitration(s) as per the rates fixed by the arbitrator from time to time.
3. The parties agree to comply with the awards resulting from arbitration and waive their rights to any form of appeal insofar as such waiver can validly be made.

G. INSURANCE

The insurance as per GoM guidelines and safety of all men and material of the Bidder at the MSEDCL's site shall be the responsibility of the Bidder. The Bidder, at his cost shall arrange, secure and maintain insurance as may be necessary and for all such amounts to protect his interests and the interests of the Owner against all risks.

H. BID SECURITY

The bid security of the successful bidder will be returned when the bidder has signed the Contract Agreement and furnished the required performance guarantee. The bid security of the unsuccessful bidders will be returned as promptly as possible, afterward and signing of the Contract Agreement or expiration of the period of bid validity, whichever is earlier.

I. PERFORMANCE GUARANTEE/SECURITY DEPOSIT

Within 14 (fourteen) days of receipt of the Letter of Award from the Employer, the successful bidder shall furnish to the Employer a Performance Bank Guarantee Bond for proper performance of the Contract as well as satisfactory performance of operational support, Product & Implementation to an amount not less than Five Percent (5%) of the Contract Price in accordance with the Conditions of Contract. The form of performance guarantee is provided in Annexure – IV (B) of the bidding documents may be used or some other form acceptable to the Employer. The performance guarantee shall be denominated solely in Indian Rupees, and shall be in the form of an unconditional and irrevocable Bank Guarantee issued by a Nationalized or Scheduled Bank. The bank guarantee shall, if invoked, be encashable when presented in the branch office of such Bank located in Mumbai, Maharashtra.

1. Failure of the successful bidder to comply with the requirements Tender Conditions shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.
2. The Performance Bank Guarantee shall be returned to the bidder after successful completion of the entire work to the fullest satisfaction of the Employer at the end of the contract period that is

after the defect liability period.

3. The successful bidder is required to fulfill requirement of Product & Implementation as per criteria defined in this document, for a period of five years from the date of start of project.
4. If required the amount and validity of additional Bank Guarantee/s in case of any changes necessitated to be submitted by the successful bidder shall be calculated by the Employer on the basis of details to be provided by the successful bidder. The successful bidder has to submit the fresh performance guarantee two months prior to completion of work. In case the contractor fails to submit the information and fresh Performance Guarantee, the retention amount available with the Employer will be withheld & it will be released only after submission of the required Performance Guarantee, by the successful bidder.
5. If Bidder or their employees damage, break, deface the property belonging to the EMPLOYER or others during the execution of the contract, the same shall be made good by the Bidder at his own expense and in default thereof; the MSEDCL may cause the same to be made good by other agencies and recover expenses from the Bidder for which the certificate of the MSEDCL shall be final.

J. FORFEITURE OF PERFORMANCE BANK GUARANTEE

- a. Whenever any claim against the Bidder for the payment of a sum of money arises out of or under the contract, the EMPLOYER shall be entitled to recover such sum by encashing in part or whole the P.B.G. Bond submitted by the Bidder . In the event of the P.B.G. Bond being insufficient or if no other security has been taken from the Bidder, then the balance or the total sum recoverable as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Bidder. The Bidder shall pay to the EMPLOYER on demand any balance remaining due.
- b. In the event of any breach by the Bidder or any loss or damage occasioned by the EMPLOYER which in the opinion of the EMPLOYER has arisen, the decision where of shall be final and binding on the Bidder or in the event of the termination of the contract for any such breach, the P.B.G. Bond is liable to be forfeited. The decision of forfeiture by the EMPLOYER shall be final and binding on the Bidder.

K. PRICES

1. The Bidder should submit their prices as per enclosed price bid format at Annexure – VI.
2. The Price quoted by the Bidder shall remain firm and binding during the Contract Period subject to the variations stipulated hereinafter. The break-up of Price with respect to the supply/service and the respective quantities for successful implementation shall be considered as indicative. The Bidder shall perform all his works as envisaged in the Agreement.
3. If the actual physical supplies and services are found more than those indicated by the Bidder in the Price Schedule, the Bidder shall not be entitled for any additional amount from the Employer. However in the event of decrease in actual supplies/services, the Contract Price shall be adjusted for the decreased supplies/services.
4. Unless specified otherwise in the Employer's Requirements, the prices to be quoted are intended to provide for all work duly and properly completed in accordance with the General Conditions of Contract and Special Conditions of Contract.
5. All payments shall be made directly to the bidder on necessary certification by the Bidder and on compliance of contractual terms & conditions. No Letter of Credit is envisaged for Rupee payment.
6. In case of shortage/missing/damage/ failure of any product identified at any point of time within the period specified by the Contract including guarantee period, the agency shall supply/replace

the same without any financial implication to the Employer. The taxes, duties, clearing & forwarding and other charges incurred by the Employer in this regard shall be recovered from the Bidder's pending bills and in case no bills are pending the same shall be made good by the Bidder. The Bidder shall accordingly submit the subsequent invoices.

7. The bidder shall stand guarantee for the overall performance of the contract including for the supplies made/work done and work to be done by their Bidder members. Towards this guarantee, the Bidder shall submit a performance BG/security deposit for 5% of the Contract Price as per tender Conditions.
8. Considering the progress of the works and in order to meet the Contract Schedule, the Contractor shall carry out the works on round the clock if required, duly complying the statutory and site requirements.
9. Any other activity necessary for the completion of the supply, installation, tests & commissioning up to guarantee period as per General Conditions of Contract, Special Conditions of Contract if any, and Specifications.
10. All procedures required under statutes, for availing any concessions under relevant tax laws shall be adhered to by the Contractor.
1. The bidder shall note that the prices quoted shall include all the items and services listed at Annexure - VI (Price bid format)

L. TAXES & DUTIES

The quoted prices should be 'FIRM' inclusive of all of Govt. Statutory / levies / taxes & duties as applicable.

1. The estimated cost of GST chargeable to the Employer by the Contractor, wherever applicable, shall be shown separately in the Bidder's quotation,
2. The bidder should also note that the Employer will discharge its tax liability under the most beneficial scheme for availing the maximum cost advantage. Bidder should therefore take any GST to which they may be legally entitled into consideration while offering their quoted rates / prices.
3. Upward variation in GST if any applicable after opening of price bid/revised price/revision in price as the case may be (based on which the order on contract shall be placed) shall be reimbursed by the EMPLOYER subject to production of necessary documents by the Bidder. Similarly withdrawal/downward revision in variation in GST shall be adjusted in the price quoted and benefit shall be passed to the EMPLOYER. Variation of GST shall be reimbursed and no other variation shall be considered. Fresh taxes & levies, if any, as may be applicable on this contract, shall be reimbursable against documentary proof to be submitted by the Bidder. The bidder has to consider all taxes & duties applicable on this contract. Any omission, or non-inclusion, either declared or not declared, of any taxes and duties that are applicable at the time of submission of price bid/revised price bid /revision in prices shall not be considered as a reason for reimbursement of such taxes and duties at a later date.
4. During tenure of the contract if any new taxes/duties/levies etc. are imposed or rates undergo changes, as notified by the Government and become applicable to the subject works, the same shall be reimbursed by the Employer on production of documentary evidence in respect of payment of the same. Similarly, benefits accruing to agency on account of withdrawal/reduction in any existing taxes and duties shall be passed on to the Employer.
5. Variation in GST after opening the Price Schedule and/or revised Price Schedule as the case may be (based on which the order on Contract shall be placed) shall be reimbursed by the Employer subject to production of necessary documentary evidence by the Contractor at the time of submission of bill. Similarly withdrawal/ downward revision in GST shall be adjusted in the price quoted and benefit shall be passed to Employer. However if the Work is delayed for the reasons attributable to the Employer and extension of the Time for Completion is

granted, variation in Taxes and Duties enacted during Contractual completion/execution period, the adjustment in contract price shall be allowed within the extended period of the Contract. Similarly, if the Work is delayed for the reasons attributable to the Contractor, variations in Taxes and Duties will not be paid.

6. The Contractor shall bear and pay all the liabilities in respect of non-observance of all legal requirements as per various statutory provisions.
7. The adjustment in the Contract Price towards imposition of new taxes or abrogation of existing taxes shall be applicable only if the new tax is enacted or existing tax is abrogated within Contractual delivery/execution period. For any variation due to enactment of new tax or abrogation of existing tax after Contractual delivery / execution period, adjustment in the Contract Price shall not apply.
8. All formalities required under statutes, for availing any concessions under relevant tax laws shall be adhered to by the Bidder.

M. DEDUCTION OF TAXES AT SOURCES

1. Recovery at source towards income tax calculated at the rate prescribed from time to time under the Income Tax Act 1961 and other relevant sections of Income Tax Act shall be made from the bills of the Bidder and the amount so recovered shall be deposited with the Income Tax Department. Necessary TDS certificate to this effect will be issued to the Bidder in the prescribed pro-forma.
2. If any other taxes / duties are to be recovered at source as per government regulations from time to time the same shall be recovered from the bills payable to the Bidder. Necessary receipt to this effect will be issued to the Bidder in this regard.

N. LIQUIDATED DAMAGES :

1. The Bidder shall stand guarantee for the performance and output as envisaged in the tender specification
2. In case of a delay in the deliverables (milestones as per below table) within the period stipulated in the agreement, the Bidder shall be liable to pay, at the discretion of the competent authority of MSEDCL, the liquidated damages to MSEDCL up to ½ % + GST if applicable per week or part of week on the price, subject to a maximum ceiling of 10% reckoned on the total contract value. Due consideration may be given in the levy of liquidated damages for reasons absolutely beyond the control of the Bidder, for which documentary evidence shall be produced to the satisfaction of the competent authority of MSEDCL. The decision of MSEDCL undersigned shall be final and binding on Bidder.

At any time after the placement of this order if the Bidder fails to fulfill the obligations arising out of this order MSEDCL will have the right to get the work done from any other agency for completing the remaining work at Bidder's risk & cost.

The Liquidated Damages will be made applicable considering the Milestones agreed by the bidder as per Annexure – XI

Milestone for Three Phase Power Quality Meters	Qty. in Nos.	Timelines (Month wise)	% age penalty on Price
1	2	3	4

Supply	To be filled by the bidder	As per Cl. 2.5 of RFP	After the completion of timeline, LD @ 0.5% of committed lot value per week or part thereof with maximum 10% of the contract value may be levied from the bill of the contractor
Installation	To be filled by the bidder	As per Cl. 2.5 of RFP	
FMS	To be filled by the bidder	Immediate subsequent month of installation of each meter.	

O. TRANSFER OF OWNERSHIP

Ownership and the terms of usage of the Software and hardware, infrastructure and Materials supplied under the Contract shall be governed by Tender Conditions. After the contract period is over, infrastructure installed by the bidder such as data collection software, etc. shall be handed over to MSEDCL. All the infrastructure installed during contract period, should be in good working condition while handing over to MSEDCL. All the hardware and software installed during the contract period shall be treated as MSEDCL property. The vendor shall grant the purchaser a perpetual license to use the software without any additional payment or obligations to enter into a contract for maintenance or support.

P. BILLING AND PAYMENT TERMS

Payment would be made in the following sequence:-

(a) Payment against Supply:

- (i) 50% of the Power Quality Meters cost for the supplied lot shall be paid after successful Inspection & delivery of the material at MSEDCL store location.
 - Payment of the Contract price will be paid through RTGS/NEFT within 60 days from the date of receipt of material in stores in good condition, against inspected lot quantity.
- (ii) 20% of the Power Quality cost shall be paid after successful Installation & uploading the data on 1st reading of power transformer LV side in MSEDCL MDAS system.
 - Will be paid through RTGS / NEFT within 45 days after confirmation of receipt of data through MDAS in consultation with IT section.

(b) Payment against Installation :

- (i) 100% payment towards installation of Power Quality Meter for the installed quantity shall be made after successful Installation & uploading the data on billing system with 1st billing reading of consumer after confirmation of receipt of data through MDAS in consultation with IT section.
 - Will be paid through RTGS/NEFT within 45 days after 1st billing reading of consumer after confirmation as above.

(c) Payment for FMS / Reading through AMR and balance 30 % of meter cost :

Monthly 100% payment towards consumers meter reading actually received in MSEDCL MDAS system (FMS), 1.66% of total cloud infrastructure charges, 1.66% of total sim card charges & 0.5 % of meter cost/month during the project duration of 5 years will be made after confirmation of receipt of monthly data through MDAS in consultation with IT section on fulfillment of below.

- i. The Bidder shall submit monthly invoice as per agreed payment terms with supporting documents. All the deliverables completed and eligible for payment can be included. Payments will be made within 45 working days through account payee cheque or through RTGS only after submission of the bills and other documents which are correct in all respects for on account bills to the MSEDCL and as per availability of funds. Payment shall be released on submission of the

- bill with supporting documents and after deducting applicable taxes, penalty and other recoverable. Against deduction of statutory taxes, tax deduction certificates where ever applicable shall be issued at the end of the month.
- ii. FMS / Billing by the agency shall be done, purely on per reading basis only i.e. for no. of Meter readings downloaded through AMR. Taxes applicable, if any, such as GST or any other tax applicable from time to time shall be paid extra.
 - iii. No separate charges will be paid to agency for integration of data collection software with MSEDCL central server i.e. MDAS
 - iv. In case of non-receipt of readings through AMR, readings should be downloaded through optical port through MRI/HHT. The HHT/MRI reading instrument should be arranged by the bidder at their own cost.
 - v. Penalty is applicable for readings not received through AMR within reading program as per annexure-VIII for SLA.
 - vi. The bidder shall submit the duly signed, =monthly invoices in triplicate along with reading statistics for readings of meters through AMR, at the end of each month to General Manager (F&A-SB), Prakashgad, Mumbai. The invoices submitted will be processed on the basis of meter reading available in the web based data collection software of the bidder.
 - vii. For communication the cost of cloud infrastructure, SIM card & recurring monthly charges shall be borne by Bidder.
 - viii. Annual Maintenance Contract (AMC) for Head End System per year, after expiry of FMS period will be made separately.

Q. WAIVER

Failure of the EMPLOYER to insist upon strict performance of any terms and conditions of the contract will not be deemed a waiver of any rights or remedies that the EMPLOYER may have and will not be deemed a waiver of any subsequent default under the terms and conditions of the contract. No right or remedy of the EMPLOYER will be exclusive of any other right or remedy and EMPLOYER will have all the rights and remedies given under the contract and now or hereafter existing in law or by statute. The shipping or delivery by the Bidder or receiving of or payment by the EMPLOYER for the work under this contract will not be deemed a waiver of any rights for any prior failure by the Bidder to comply with any of the provisions of the contract.

R. MEMBERS OF EMPLOYER NOT INDIVIDUALLY LIABLE

No Director or official or employee of the EMPLOYER shall in any way be personally bound or liable for the acts or obligations of the EMPLOYER under the contract or answerable for any default or omission in the observance or performance of the acts, matters or things which are herein contained. The Bidder shall not be entitled to any increase on the scheduled rates or any other rights or claims whatsoever by reason of any representation, explanation, statement or alleged understanding, promise or guarantees given or to have been given to him by any person.

S. TRANSPORTATION

Bidder shall make his own arrangements for movement of human resources and equipment within and outside the sites/units/offices at the various locations covered by the Contract at his own cost.

T. SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METERS AND IMPLEMENTATION OF FMS, BIDDER'S STAFF AND THEIR CONDUCT

1. The Bidder on award of work shall deploy qualified professionals as designated in the scope of the Contract for implementing SUPPLY, INSTALLATION OF THREE PHASE POWER QUALITY METERS AND IMPLEMENTATION OF FMS. At any time in the opinion of the MSEDCL, any

additional, qualified, experienced engineer is considered necessary; they shall be deployed by the Bidder without any additional charge. The Bidder shall ensure to the satisfaction of the MSEDCL competent and efficient supervision of the consulting services.

2. If any of the Bidder's employee in the opinion of MSEDCL be guilty of any misconduct or be incompetent or insufficiently qualified or negligent in the performance of their duties or that in the opinion of the MSEDCL, undesirable for administrative or any other reasons, for such person(s) to be employed for providing consultancy services, then at the directions of the MSEDCL the Bidder shall at once remove such person (s) from the site(Works). Vacancy so created shall be immediately filled at the expense of the Bidder by a qualified and competent substitute. Should the Bidder be requested to repatriate any person or removed from this contract, he shall do so and shall bear all costs in connection therewith.
3. The Bidder shall be solely responsible for the proper behavior of his employees and staff employed by him/deputed by him to provide consultancy services. The Bidder shall exercise proper degree of control over them and in particular without prejudice to the said generality the Bidder shall be bound to prohibit/prevent any of his employees (as stipulated above) from trespassing or acting in anyway detrimental or prejudicial to the interest of the community or the properties or occupiers of land or properties in the neighborhood. In the event of such trespassing, the Bidder shall be responsible for all consequent claims or actions for damages or injury or any other grounds whatsoever. The decision of the MSEDCL upon any matter arising under this clause shall be final.
4. All Bidder's personnel entering the Employer's premises shall be properly identified by badges of a type acceptable to the EMPLOYER which must be worn at all times on the Employer's premises.
5. It is made clear that no relationship of employer and employee is created between the EMPLOYER and the Bidder's resident engineers, employees and no claim for employment of any such personnel shall be tenable or entertained

U. SECURITY AND SAFETY REGULATIONS

The Bidder shall abide by all the safety and security regulations of the EMPLOYE Reinforce and promulgated from time to time and other statutory requirements.

V. EMPLOYEES PROVIDENT FUNDS AND MISCELLANEOUS PROVISIONS ACT

1. The Bidder shall ensure strict compliance of provisions of the Employees' Provident Funds and Miscellaneous Provisions Act 1952 and the schemes framed there under so far as they are applicable to their establishments and agencies engaged by them. The Bidder also required indemnifying the EMPLOYER against any loss or claims or penal damages whatsoever resulting out of non-compliance on the part of the Bidder with the provisions of the aforesaid Act and the Schemes framed there under.
2. The Bidder agrees to and does hereby accept full and exclusive liability for the compliance with all obligations imposed by Employees State Insurance Act, 1948, and the Bidder further agrees to defend, indemnify and hold Employer harmless from any liability or penalty which may be imposed by the Central, State or local authority by reason of any alleged violation by Bidder of the Employees' State Insurance Act, 1948 and also from all claims, suits or proceedings that may be brought against the Employer arising under, growing out of or by reason of the work provided for by the Contract whether brought by employees of the Bidder , by third parties or by Central or State Government authority or any political sub-division thereof.
3. The Bidder agrees to file with the Employees State Insurance Corporation (ESI), the Declaration forms and all forms which may be required in respect of the Bidder's employee whose aggregate remuneration is within the specified limit and who is employed in the work provided or those covered by ESI Act and Employees Provident Funds (EPF) Sand Miscellaneous provisions Act 1952 under any amendment to the Act from time to time.

4. In absence of ESI, bidder has to provide Workmen Compensation and medical Insurance (for accident arising out/during the course of employment) for all the employees engaged in the performance of this Contract.
 5. The Bidder agrees to maintain all records as required under the Act in respect of employees and payments. Any expenses incurred for the contributions, making contribution or maintaining records shall be to the Bidder's account.
 6. The Employer shall retain such sum as may be necessary from the total contract value until the Bidder shall furnish satisfactory proof that all contributions as required by the Employees State Insurance Act, 1948, have been paid.
- X. The Bidder shall conform in all respects with the provisions of any statutory regulations, ordinances or byelaws of any local or duly constituted authorities or public bodies which may be applicable from time to time to the consulting services work.

Y. LIENS

If at any time there should be any evidence or any lien, claim for which the EMPLOYER might have become liable, which is chargeable to the Bidder, then the EMPLOYER may pay and discharge the same and deduct the amount so paid from any amount which may be or may become due and payable to the Bidder. If any lien or claim remain unsettled after all payments are made, the Bidder shall refund or pay to the EMPLOYER the cost such lien or claim including all payments and reasonable expenses. EMPLOYER reserves the right to the same.

Z. OTHER TERMS AND CONDITIONS

1. The Bidder is required to enter into agreement after submission of Initial Security deposit.
2. Should the EMPLOYER at any time require the Bidder to do any work beyond what is provided under this agreement, the Bidder shall undertake to do such additional work for an additional remuneration to be mutually agreed upon.
3. The EMPLOYER may make modifications/revisions/changes/deletions in the scope of work from time to time and the same shall be complied with by the Bidder without prejudice to his rights under the contract

AA. PROFILES OF TEAMS

The Bidder has to deploy a specialized and trained team for the successful and timely completion of the Project. The bidder shall submit the details of experience with proof.

BB. TEMPORARY SUSPENSION

MSEDCL may at any time temporarily suspend or stop the execution of the Contract or any part thereof by notice in writing to Contractor. All works so suspended or stopped shall be resumed by Contractor based on a schedule to be mutually agreed upon between MSEDCL and Contractor. In case of temporary suspension because of MSEDCL suitable compensation will be paid by MSEDCL on mutually agreed basis.

1. MSEDCL reserves to itself the right to withdraw from the tendering process or from any part thereof, to accept or reject any or all tenders, in full or any part, at any stage of process and / or to modify the process or any part thereof at any time thereof without assigning any reasons whatsoever. No financial obligation shall debit to MSEDCL in such an event. The Tenderers are advised to submit the tender strictly based on the terms and conditions and scope contained in the tender documents including corrigenda/amendments, if any, issued by MSEDCL prior to submission of tender. For corrigenda/amendment with financial implications, if any, issued by MSEDCL after submission of tender, but before opening of Price Bids, the Tenderers shall be entitled to amend their prices.
2. Bid documents shall comprise of various Annexure and Attachments as specified in Tender documents. In addition, any other document / instruction / amendments / Minutes of Meeting/revisions issued by the EMPLOYER to the bidder during pre-bid Conference or later till due date of submission of the offers, shall also be deemed to be integral part of the bid documents and order. Failure to furnish all the information required by the bidding document in every respect will be at bidder's risk.

ANNEXURE -I

“INDEMNITY BOND”

UNDERTAKING TO BE SUBMITTED BY THE PARENT COMPANY SITUATED ABROAD IN CASE OF THE PARTICIPANT BIDDER WHO IS AN INDIAN BASED SUBSIDIARY ON GENERAL STAMP OF RUPEES 200/-

The Chief Engineer (MMD),
Maharashtra State Electricity Distribution Co. Ltd.,
Prakashgad,
Bandra (E),
Mumbai – 400 051.

Sub: Undertaking against Tender ____ for procurement of _____.

Dear Sir:

We, M/s. _____ having registered office at _____ are the Parent Company of M/s. _____ who have participated against your tender no. _____ for _____.

We have carefully read and have thoroughly understood and agree to the terms and conditions of the subject tender.

We hereby undertake that in case of placement of order against the subject tender on our subsidiary company, M/s. _____, in the event of we accept all the responsibilities and liabilities for supply of quality meters as per specification of the tender and execution of the contract. We further hereby undertake that we shall be responsible for any liability arising out of the contract placed on M/s. _____ and to pay MSEDCL on demand the sum of rupees as per agreement in the event of any breach of condition of the purchase order, loss and damage of the material till expiry of guarantee period as stipulated in the order. Our liability here under shall not be impaired or discharged by extension of time or variation or alteration made with or without our knowledge or consent by or between the parties to the said contract. This undertaking shall be valid and binding on us upto and including the execution and guarantee period of the order and shall not be terminable by notice or change in the constitution of any of the companies. In case of any dispute arising out of or in connection with this tender or contract, if concluded, the same shall be subject to the exclusive jurisdiction of the “Court in Mumbai (India).”

Yours faithfully,

(Authorized Signatory)

FOR _____

ANNEXURE - II
FORM OF AUTHORISED NOMINEE/ASSIGNEE
(To be submitted on the letter head of the foreign Bidder/Manufacturer)
Date:

To,
The Chief Engineer (MMD),
Maharashtra State Electricity Distribution Co. Ltd.
1st Floor, Prakashgad, Plot No. G-9,
Bandra (East) Mumbai - 400 051.
India

Subject: Notification of invitation of bids against Tender No. -----

Dear Sir,

This has reference to the Tender No. ----- for ----- We M/s. -----
----- (foreign Bidder/Manufacturer) authorize our Assignee/Nominee in India M/s. -----
----- to participate against Tender No. ----- We M/s. -----(foreign
Bidder/Manufacturer) hereby agree, confirm, adopt unconditionally to abide by the offer of M/s. -----
----- (Assignee/Nominee) for supply of Meters.

Thanking you,

Your's Faithfully,

(Signature of the Authorized Signatory of foreign Bidder/Manufacturer)

(Name)

(Designation)

ANNEXURE - III

**UNDERTAKING CUM INDEMNITY BOND FOR POLYCARBONATE ENCLOSURE OF SINGLE
PHASE METERS**

----- NOT APPLICABLE -----

Annexure IV#(A) PROFORMA FOR BANK GUARANTEE FOR BID SECURITY (EMD)**To: Maharashtra State Electricity Distribution Company Limited***Represented by***The Chief Engineer (MMD),**

Maharashtra State Electricity Distribution Co. Ltd.

1st Floor, Prakashgad, Plot No. G-9,

Bandra (East) Mumbai – 400 051. India

WHEREAS *[name and address of Contractor]* (hereinafter called "the **Contractor**") has undertaken, in pursuance of Tender No., dated for Supply and installation of Three Phase Power Quality Meters and implementation of FMS on power transformers spread over entire state of Maharashtra, (hereinafter called "the **Contract**");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of **Rs.-----/- (Rs. -----)** and we undertake to pay you, through our branch office at _____ *[Address of branch office at Mumbai, Maharashtra]*, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of Guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

The bank guarantee will remain in force from date of issue till _____ (210 days from the Date of Issue of Tender). Any demand in respect thereto should reach the Bank not later than the specified date i.e. _____. (210 days from the Date of Issue of Tender).

The bank guarantee for bid security may be forfeited:

a) if the bidder withdraws its bid, except that written notice of the withdrawal of bid is received by the employer prior to the deadline for submission of bids; or

(b) if the bidder does not accept the correction of its bid price, pursuant to Tender Conditions; or

(c) if the bidder is determined, at any time prior to award of contract, to have engaged in corrupt or fraudulent practices as defined under tender in competing for the contract; or

(d) in the case of a successful bidder, if it fails within the specified time limit to:

(i) sign the Contract Agreement, or

(ii) furnish the required contract performance security

Yours truly,

Signature and seal of the Guarantor:

Name of Bank/Financial Institution:

Address:

Date:

ANNEXURE IV (B) PROFORMA FOR SECURITY / PERFORMANCE BANK GUARANTEE

(On Non-judicial paper for appropriate value)

To,

Maharashtra State Electricity Distribution Company Limited

Dear Sir,

In consideration of the Maharashtra State Electricity Distribution Company Limited,(herein after called 'the Company' which expression shall include its successors and assigns) having awarded to M/s. (Name).....(Constitution).....(address).....(herein after referred to as "The vendor" which expression shall wherever the subject or context so permits include its successors and assigns) a supply contract in terms inter alia, of the Company's purchase order No.....dated.....and the General and Special Purchase Conditions of the Company and upon the condition of vendor's furnishing security for the performance of the vendor's obligations and / or discharge of the vendor's liability under and/or in connection with the said supply contract upto a sum of Rs. (in figures).....Rs (in words).....only amounting to 5% (five percent) of the total contract value.

We, (Name).....(constitution).....(hereinafter called "the Bank" which expression shall include its successors and assigns) hereby jointly and severally undertake and guarantee to pay to the Company in---- (Currency) for the with on demand in writing and without protest or demur of any and all moneys any wise payable by the Vendor to the Company under in respect of or in connection with the said supply contract inclusive of all the Company's losses and expenses and other moneys anywise payable in respect to the above as specified in any notice of demand made by the Company to the Bank with reference to this Guarantee upto an aggregate limit of Rs (in figures).....Rs(in words).....only.

AND the Bank hereby agrees with the Company that

- i. This Guarantee/undertaking shall be a continuing guarantee and shall remain valid and irrevocable for all claims of the Company and liabilities of the vendor arising up to and until midnight of

This date shall be 6 months from the last date of guarantee period.

- ii. This Guarantee/ Undertaking shall be in addition to any other guarantee or security of what so ever that the Company may now or at any time otherwise have in relation to the vendor's obligation/liabilities under and/or connection with the said supply contract, and the Company shall have full authority to take recourse too reinforce this security in preference to the other security(ies) at its sole discretion, and no failure on the part of the Company in enforcing or requiring enforcement of any other security shall have the effect of releasing the Bank from its liability here under.

- iii. The Company shall be at liability without reference to the Bank and without effecting the full liability of the Bank hereunder to take any other security in respect of the vendor's obligations and/or liabilities under or in connection with the said supply contract and to vary the terms vis-à-vis the vendor of the said supply contractor to grant time and/or indulgence to the vendor or to reduce or to increase or otherwise vary the prices of the total contract value or to release or to for bear from enforcement all or any of the obligations of the vendor under the said supply contract and/or the remedies of the Company under any other security(ies) now or hereafter held by the

Company and no such dealing(s), variation(s), reduction(s), increase(s) or the indulgence(s) or arrangement(s) with the vendor or release or for bearance what so ever shall have the effect of releasing the Bank from its full liability to the Company hereunder or of prejudicing rights of the Company against the Bank.

- iv. This Guarantee/Undertaking shall not be determined by the liquidation or winding up or dissolution or change of constitution or insolvency of the vendor but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to the Company in terms hereof.
- v. The Bank hereby waives all rights at any time inconsistent with the terms of the Guarantee/Undertaking and the obligations of the Bank in terms here of shall not be anyway affected or suspended by reason of any dispute or disputes having been raised by the vendor (whether or not pending before any Arbitrator, officer, Tribunal or Court) or any denial of liability by the vendor or any other order of communication what so ever by the vendor stopping or preventing or purporting to stop or prevent any payment by the Bank to the Company in terms hereof.
- vi. The amount stated in any notice of demand addressed by the Company to the Guarantor as liable to be paid to the Company by the vendor or as suffered or incurred by the Company on account of any losses or damages of costs, charges and or expenses shall as between the Bank and the Company be conclusive of the amount so liable to be paid to the Company or suffered or incurred by the Company, as the case may be and payable by the Guarantor to Company in terms hereof.

Yours faithfully,

(Signature)

NAME & DESIGNATION

NAME OF THE BANK

NOTES:

Annexure V**Commitments of the Tenderer/Contractor**

- i.** The Tenderer /Contractor commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the Contract execution;
- ii.** The Tenderer / Contractor will not directly or through any other person(s) or firm, offer, promise or give to the Principal, or to any of the Principal's employees involved in the tender process or the execution of the Contract or to any third person any material or immaterial benefit which he / she is not legally entitled to in order to obtain, in exchange, an advantage during the tender process or to vitiate the Principal's tender process or the execution of the Contract.
- iii.** The Tenderer / Contractor will not enter with other Tenderers into any illegal agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or actions to restrict competitiveness or to vitiate the Principal's tender process or the execution of the Contract.
- iv.** The Tenderer / Contractor will not commit any criminal offence under the relevant Anti- corruption Laws of India; further, the Tenderer / Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- v.** The Tenderer / Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- vi.** The Tenderer/ Contractor will not take, directly or indirectly, any steps which could unduly influence the functioning of EIM.
- vii.** The Tenderer / Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Annexure VI (PRICE BID)

(A) PRICE BID FOR SUPPLY										
Item No.	Description of material	Quantity required in nos.	Break-up of F.O.R. Destination Price indicated in column no. (4)						F.O.R. Destination price per No. (In Rs.)	Total
			Ex-works price including packing charges but excluding taxes & duties (In Rs.)	Freight charges (In Rs.)	Transit Insurance charges (In Rs.)	Integrated GST @---- % for outside state transaction (Ex-works price + Freight charges+ Transit Insurance charges) (In Rs)	Central GST @---- % for within state transaction (Ex-works price + Freight charges + Transit Insurance charges) (In Rs)	State GST @--- % for within state transaction (Ex-works price + Freight charges + Transit Insurance charges) (In Rs)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	10=(4+5+6+7+8+9)	11=(3*10)
1	Three Phase Power Quality Meter	1,500								

(B) PRICE BID FOR INSTALLATION						
Item No.	Description of material	Quantity in Nos.	Charges / meter	GST / meter	Total / meter	Total
1	2	3	4	5	6=(4+5)	7=(3*6)
1	Installation of Three Phase Power Quality meter along with allied materials	1,500				

(C) PRICE BID FOR CLOUD						
Item No.	Description of material	Quantity in Nos.	Charges / unit	GST / unit	Total / unit	Total
1	2	3	4	5	6=(4+5)	7=(3*6)
1	Cloud Infrastructure charges for 5 yrs	1				

(D) PRICE BID FOR SIM CARD						
Item No.	Description of material	Quantity in Nos.	Charges / sim / month	GST / sim / month	Total / sim / month	Total
1	2	3	4	5	6=(4+5)	7=(3*6)*60
1	Sim card charges for 5 yrs	1,500				

(E) PRICE BID FOR FMS						
Item No.	Description of material	Quantity in Nos.	Charges / meter / month	GST / meter / month	Total / meter / month	Total
1	2	3	4	5	6=(4+5)	7=(3*6)*60
1	FMS charges Per Meter Per Month	1,500				

(F) PRICE BID AMC OF HEAD END SYSTEM					
Item No.	Description of material	Quantity in Nos.	Charges in Rs.	GST in Rs.	Total in Rs.
1	2	3	4	5	6= (4+5)
1	AMC cost for Head End System per year, after expiry of FMS period	-			

Package Cost = (A) + (B) + (C) + (D) + (E) = Rs. _____

Seal

Authorized Signature

Name and designation of Signatory

Annexure VII

Format for No Deviation Form

Tender Name:

Tender No. :

CERTIFICATE FOR NO DEVIATION

We, (Bidder's Name), hereby certify that there is no technical or commercial deviation from the Conditions mentioned in Tender Document and I am agreeing to all the terms and conditions mentioned in the Tender Specification.

Authorized Signatory with seal

Date:

Place:

Annexure VIII

SERVICE LEVEL AGREEMENT

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:

- 1 Trigger a process that applies Purchaser and Supplier management attention to some aspect of performance only when that aspect drops below an agreed upon threshold, or target.
- 2 Makes explicit the performance related expectations on performance required by the Purchaser
- 3 Assist the Purchaser to control levels and performance of services provided by Supplier
- 4 This SLA is between Supplier and Purchaser.

2. Description of Services Provided

Supplier shall provide service as defined in Scope of Work, in accordance to the definitions and conditions as defined in this RFP.

2.1. Duration of SLA

This Service level agreement would be valid for entire period of contract. This SLA may be reviewed and revised according to the procedures detailed in "SLA Change Control".

2.2. Service Level Agreements & Targets:

This section is agreed to by Supplier and Purchaser as the key Supplier performance indicator for this engagement. The following section reflects the measurements to be used to track and report systems performance on a regular basis.

a) The indicative SLA to be measured is as below:

SLA Category	SLA	Measurement
End-to-end communication availability	99% of end-to end communication availability	Measured on the basis of average no. of non-communicating meters per month.

Penalty for non-availability of readings:

Readings (billing data) of meters should be downloaded daily, at least once and made available at data collection software by the bidder. Penalty will be calculated for missing number of days (for which readings are not downloaded) for each POWER QUALITY in a month. Percentage of readings for SLA will be calculated as per following formula:

$$\% \text{ of Readings for SLA} = \frac{\text{Sum of Power Quality meter readings in a month (Considering one reading per day per meter)}}{\text{Total no. of Power Quality meters installed} \times 30} \times 100$$

Monthly Meter Reading Penalty for Three Phase POWER Quality Meters:

Percentage of no. of Three Phase Power Quality Meter readings (billing data) received through AMR and updated in data collection software per month	Penalty (Considering one reading daily per Power Quality Meter through AMR in a month)
>= 90%	No penalty
>= 80% and < 90%	10% penalty on unit rate on missing no. of daily readings in a month.
>= 70% and < 80%	15 % penalty on unit rate on missing no. of daily readings in a month.
>= 50% and < 70%	20 % penalty on unit rate on missing no. of daily readings in a month.
< 50%	No Payment for a month

Note: In case of non-communication between Power Quality Meter and central server, agency should resolve the issue & establish communication between Power Quality Meter & server, within 72 hours.

2.3. Breach of SLA

In case the Supplier does not meet the service levels mentioned in this Section for three (3) continuous time-periods as specified in the relevant clause, the Purchaser will treat it as a case of breach of Service Level Agreement. The following steps will be taken in such a case:-

1. Purchaser issues a show cause notice to the Supplier.
2. Supplier should reply to the notice within three working days.
3. If the Purchaser authorities are not satisfied with the reply, the Purchaser will initiate termination process as described GCC.

2.4. Exclusions

The Supplier will be exempted from any delays or slippages on SLA parameters arising out of reasons absolutely beyond the control of Supplier, such as force majeure events like natural calamities, flood, etc. Documentary evidence shall be produced to the satisfaction of tender issuing authority by Supplier. Decision for exclusions of SLA will be taken by tender issuing authority.

2.5. Monitoring and Auditing

Purchaser will review the performance of Supplier against the SLA parameters each month, or at any periodicity defined in the contract document. The review / audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the Supplier as soon as possible. Purchaser reserves the right to appoint a third-party auditor to validate the SLA.

2.6. Reporting Procedures

The Supplier's representative will prepare and distribute SLA performance reports in an agreed upon format by the 10th working day of subsequent month of the reporting period. The reports will include "actual versus target" SLA performance, a variance analysis and discussion of appropriate issues or significant events. Performance reports will be distributed to the Purchaser's IT Team.

2.7. Issue Management Procedures

a. General

This process provides an appropriate management structure for the orderly consideration and resolution of business and operational issues in the event that quick consensus is not reached between Purchaser and Supplier. It is expected that this pre-defined process will only be used on an exception basis if issues are not resolved at lower management levels.

b. Issue Management Process

- Either Purchaser or Supplier may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.

- Purchaser and the Supplier's representative will determine which committee or executive level should logically be involved in resolution.
- A meeting or conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.
- Management of Purchaser and Supplier will develop a temporary, if needed, and the permanent solution for the problem at hand. The Supplier will then communicate the resolution to all interested parties.
- In the event a significant business issue is still unresolved, the arbitration procedures described in the Contract will be used.

2.8. SLA Change Control

a. General

It is acknowledged that this SLA may change as Purchaser's business needs evolve over the course of the contract period. As such, this document also defines the following management procedures:

1. A process for negotiating changes to the SLA.
2. An issue management process for documenting and resolving particularly difficult issues.
3. Purchaser and Supplier management escalation process to be used in the event that an issue is not being resolved in a timely manner.

Any changes to the levels of service provided during the term of this agreement will be requested, documented and negotiated in good faith by both parties. Either party can request a change. Changes will be documented as an addendum to this document and consequently the contract.

b. SLA Change Process

Both the parties may amend this SLA by mutual agreement in accordance. Changes can be proposed by either party. Normally the forum for negotiating SLA changes will be Purchaser's monthly review meetings.

c. Version Control

All negotiated SLA changes will require changing the version control number. As appropriate, minor changes may be accumulated for periodic release (e.g. every quarter) or for release when a critical threshold of change has occurred.

2.9. Management Escalation Procedures

The purpose of this escalation process is to provide a quick and orderly method of notifying both parties that an issue is not being successfully resolved at the lowest possible management level. Implementing this procedure ensures that purchaser and Supplier management are communicating at the appropriate levels. Escalation should take place on an exception basis and only if successful issue resolution cannot be achieved in a reasonable time frame.

1. All issues would be raised to the project management team, which is completely responsible for the day to day aspects of the implementation. The project management team shall classify the issues based on their severity level and resolve them within appropriate timelines.
2. If project management team is unable to resolve an issue, the issue would be escalated to the top management with options/ risks detailed for decision. Purchaser's Top management will make decisions based on the options/ risks presented by Purchaser.
3. In case one or both the parties are unsatisfied with the decision of the top management of the Purchaser, the dispute will be resolved as specified in GCC.

2.10. Responsibility

The bidder shall be responsible for roles and responsibilities with respect to the Requisite Services. Further, terms & conditions mentioned in this RFP shall be binding on bidder.

2.11. Signature Page

IN WITNESS WHEREOF, the parties hereto have caused this Service Level Agreement to be executed by their respective authorized representatives as of the date first written above.

Supplier	Purchaser
Signature	Signature
Name	Name
Address	Designation
Company	Utility: Maharashtra State Electricity Distribution Co. Ltd.
Date	Date

Annexure IX**WORKING MANUAL**

For smooth execution of project, procedures defined as below are to be strictly followed:

Sr. No.	Description of activity	Responsibility	No. of working days
1	Offering of material for inspection.	Supplier	As per Milestone
2	Inspection of meters for each lot at supplier's factory location.	MM Dept.	Within 3 working days of date of readiness of meters
3	After successful completion of inspection dispatching the meters to MSEDCL's store location.	Supplier	Within 10 working days
4	Information of receipt of meters to MM Dept.	Respective Store in charge	Same day
5	Issuance of RST letter	MM Dept.	2 working days
6	RST of supplied stock and information to MMD/concern store in charge	Testing / O&M division	2 working days
7	To convey RST report to remaining consignee stores for acceptance / rejection	Respective Store in charge	Same day
8	Creation of SR notes and forward to HO (SB Section) for payment	Respective Store in charge	Immediately.
9	Testing and sealing of meters at MSEDCL's office	Concern division office	Immediately
10	Handing over of priority list to replace the meters	Respective Circle/Division/Sub Dn. / Section.	Immediately.
11	To arrange for shut down for installation of meters	MSEDCL employee	Immediately after intimation by suppliers installation team.
12	Installation of meters by supplier and sealing of terminal cover	Suppliers installation team (MSEDCL employee to accompany the team)	Immediately as per Milestone.
13	To provide 1 st reading of newly installed meter to MSEDCL system through AMR	Supplier	As per Milestone
14	To provide FMS for period of 5 years through AMR.	Supplier	As per SLA
15	To handover the complete infrastructure involved in project in good condition to MSEDCL after completion of contract period of 5 years for reading.	Supplier	After successful completion of contract period of 5 years for reading.

Annexure X**Check List**

We confirm that we have gone through the bid document and as instructed in the document, we hereby submit the following documents to form the bid:

Sr. No.	Name of document	Whether submitted Yes/ No	File Name*	Page No
1.	Annexure – I : Indemnity Bond for Foreign Bidder / Manufacturer			
2.	Annexure –II : For Authorized Assignee / Nominee in case of Foreign Bidder			
3.	Annexure –III : Indemnity Bond for Polycarbonate Meter Enclosure			
4.	Annexure –IV (A) : Proforma for Bid Security (EMD) Annexure –IV (B) : Proforma for Security / Performance Bank Guarantee			
5.	Annexure –V : Commitments of tenderer / contractor			
6.	Annexure –VI : Price Bid Format			
7.	Annexure –VII : No Deviation Proforma			
8.	Annexure –VIII : Proforma for Service Level Agreement (SLA)			
9.	Annexure –X : Check list			
10.	Annexure –XI : Milestone			
11.	Annexure – XII : Offered quantity			
12.	Any other information/documents required as per RFP.			

Annexure XI**MILESTONES**

Milestone	Qty. in Nos.	Timelines (Month wise)	% age penalty on Price
1	2	3	4
Supply	To be filled by the bidder	As per Cl. 2.5 of RFP	After the completion of timeline, LD @ 0.5% of committed lot value per week or part-thereof with maximum 10% of the contract value may be levied from the bill of the contractor
Installation	To be filled by the bidder	As per Cl. 2.5 of RFP	
FMS	To be filled by the bidder	Immediate subsequent month of installation of each meter.	

Annexure XII**Offered Quantity**

Quantity Offered at Column No. 4 of Annexure-'VI' (Price Schedule-A):

Sr. No.	Item Code	Material Description	Quantity Tendered in Nos.	Quantity Offered at Column No. 4 of Annexure-'VI' (Price Schedule-A) in Nos.
1	2	3	4	5
1	77904210134	Three Phase Power Quality meters as per IEC 61000-4-30 (Class A) & as per IS 14697:1999	1,500	

Annexure XIII**List of Power Transformers**

Region	Quantity (in Nos)
Konkan	500
Pune	500
Ch. Sambhaji Nagar	250
Nagpur	250

(Detailed Location-wise list will be provided to successful Bidder)

MATERIAL SPECIFICATIONS CELL

TECHNICAL SPECIFICATION

OF

THREE PHASE POWER QUALITY METER
FOR SECONDARY SIDE OF POWER
TRANSFORMERS AT SUBSTATIONS



TECHNICAL SPECIFICATION NO.

No. CE/QC-T/MSC -II/TP
PTF PQM, Date: 19.05.2023

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1.00 SCOPE

This specification covers the design, engineering, supply and installation of Three Phase Power Quality Meter of class A certified and Audit Meter complying IS 14697 (If applicable) for AC balanced/ unbalanced loads on secondary side (11kV) of Power Transformer at Substations. The Meter should be suitable for connection to 3 phase 4 wire system. Power Quality Meter shall monitor, record and analyze Power Quality parameters of MSEDCL distribution grid.

Power quality meter shall be suitable for power quality measurements, monitoring and recording as per latest international standards which shall support high sampling rate of 1024 samples/ cycle / channel, extensive data logging capabilities, intuitive colored graphical display and high end communication capabilities. It shall have capabilities to capture, log and report PQ events, provide necessary data for analysis and assessment of power quality compliance to prevailing international standards.

Meter shall comply with IEC 61000-4-7, IEC 61000-4-30 (Class A) & IEEE 519-2014 for measurement of harmonics including other power quality parameters such as voltage sag, swell, flicker, disruptions, etc. It shall have capabilities to capture, log and report PQ events, provide necessary data for analysis and assessment of power quality compliance to prevailing international standards. Meter manufacturer shall supply power quality software for data downloading and analysis. This software shall provision to generate power quality compliance reports EN 50160, IS17036 and IEEE 519 reports.

Power Quality Meter shall conform in all respects to high standards of engineering, design and workmanship and shall be capable of performing in continuous commercial operation, in a manner acceptable to purchaser, who will interpret the meaning of drawings and specification and shall have the power to reject any work or material which, in his judgment is not in accordance therewith. The offered material shall be complete with all components necessary for their effective and trouble free operation.

2.00 APPLICATION

Use for power quality continuous measurement and monitoring on secondary side (11kV) of Power Transformer at Substations.

3.00 SERVICE CONDITIONS

Power Quality Meter must perform satisfactorily under Non -AirConditioned environment. Meter to be supplied against this specification shall be suitable for satisfactory continuous operation under the following tropical conditions.

Environmental Conditions

(a) Maximum ambient temperature	55 ⁰ C
(b) Maximum ambient temperature in shade	50 ⁰ C
(c) Minimum temperature of air in shade	5 ⁰ C
(d) Maximum daily average temperature	40 ⁰ C
(e) Maximum yearly weighted average temperature	32 ⁰ C
(f) Relative Humidity	10 to 95 %

(g) Maximum Annual rainfall	1450 mm
(h) Maximum wind pressure	150 Kg/m ²
(i) Maximum altitude above mean sea level	1000 mtrs
(j) Isoceraunic level	50 days/year
(k) Seismic level (Horizontal acceleration)	0.3
(l) Climate: Moderately hot and humid tropical climate conducive to rust and fungus growth	

4.00 APPLICABLE STANDARDS

The Power Quality Meter shall conform in all respects including performance and testing thereof to the latest relevant and applicable Indian / International Standards to be read with up to date and latest amendments / revisions thereof:

Purpose	Applicable
IEC 61000-4-30 edition 3	Electromagnetic compatibility (EMC)-Testing and measurement techniques-Power quality measurement methods
IEC 62586-2	Functional tests and uncertainty requirements
IEEE 519-2014	Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.
EN 50160	Expected limits for the power quality parameters in a public distribution network.
IEC 61000-4-7	Measurement method and limits for harmonics and inter harmonics
IEC 61000-2-4	Limits for conducted disturbances for harmonics and inter Harmonics
IEC 61000-3-8	Mains signaling voltage on the supply voltage for mains signaling frequencies over 3kHz
IEC61000-4-15	Flicker Measurement
IEC 62052-11	Electricity metering equipment (AC)-General requirements, tests and test conditions- Part 11: Metering equipment
IEC62053-22	Electricity metering equipment (AC) - Particular requirement -Static meters for active energy (class 0.2S and 0.5S)
IEC62053-24	Electricity metering equipment (AC) - Particular requirement Static meters for reactive energy (class 2 and 3)
IS 14697	AC static transformer operated Watt-hour and VAR-hour meters for class 0.2s and 0.5s
IS 15959	DLMS Indian Companion Standard - Category 'B' for Boundary/Bank/Ring/ABT Metering
IS17036	Distribution voltage supply quality report

In case of any difference between provisions of Central Station Software standards, the provisions of this specification shall prevail.

5.00 GENERAL TECHNICAL REQUIREMENTS

1.	Type of installation	Indoor/Outdoor
2.	TYPE	POWER QUALITY METER FOR THREE PHASE, FOUR WIRE ON SECONDARY (LV) SIDE OF POWER TRANSFORMERS HT (IS 14697) 3x110V/ $\sqrt{3}$ V Phase to Neutral (3P4W) Variation -30% to +20%
3.	FREQUENCY	50 HZ \pm 5%
4.	Power quality accuracy Class	CLASS " A" CERTIFIED
5.	Rated Voltage (secondary)	3x63.5 V Phase to Neutral (3P4W) Variation -30% to +20%
6.	Current rating (secondary)	Ib: 1A, Imax: 2A or Ib: 5A, Imax: 10A Shall be configurable at site
7.	Power supply	Both Self-Powered and auxiliary powered

6.0 DESIGN AND CONSTRUCTION

- 6.1 The Meter shall accurately measure voltage (V), current (A), power factor, active energy (kWh), apparent energy (kVAh), reactive energy (kVARh lag and kVARh lead separately) along with voltage and current harmonics in the system.
- 6.3 The Meter shall be used with CT secondary current 1A or 5A CT.
- 6.4 The Meter body shall be type tested for IP51 degree of protection. The type test certificate shall be submitted along with the offer.
- 6.5 The power quality meter shall indicate waveforms, harmonics trends, three phase voltage sequence, vector diagram with angle displacement between voltage and current as well as.
- 6.6 The meter shall have dynamic error compensation for CT/VT.
- 6.7 The power quality meter shall have facility to compute flickers in accordance with IEC-61000-4-15.
- 6.8 The power quality meter shall have capability to ~~detect and~~ measure power quality parameters as defined in IEC 61000-4-30 Class A as per the methods specified therein and as well complying with requirements of IEC 62586-2.
- Supply Frequency
 - Magnitude of supply Voltage

- Flicker
- Voltage Swell
- Voltage Interruption
- Voltage harmonics
- Current harmonics
- Voltage inter harmonics
- Current inter harmonics
- Voltage Unbalance
- Voltage Sag or Dip

The power quality meter shall have features to detect and log the occurrence and restoration of power quality events as defined in IEC 61000-4-30 along with date and time of the event. For analysis, the power quality meter shall also have provisions to log 10 cycle including pre and post waveforms with RMS value for voltage sag and swell events.

- 6.9 The P Q Meter shall measure active, reactive and apparent power optionally for each phase and also total values for three phases.

Meter shall support industry standard protocols IEC 61850 for data communication with base computer software, substation automation and monitoring systems. At least, MMXU, MMTR, MHAI, MFLK and MSQI Logical nodes shall be supported

- 6.10 The Meter shall measure voltage and current harmonics minimum up to the 50th order for each phase. Power quality meter shall have provision to measure and record all required parameters for compliance report as per IS17036, EN 50160 and IEEE 519-2014. Limits should be configurable as per applicable standard.

- 6.11 The Power Quality Meter shall have minimum 4-inch graphical color LCD TFT display for easy to use and understand the values. At least following display parameters shall have support on display. Meter shall have also display waveforms of the measurements of voltage, current, power factor and harmonics.

1.	Apparent power
2.	Active power and reactive power
3.	Frequency
4.	Power factor

 TECHNICAL SPECIFICATIONS OF THREE PHASE POWER QUALITY METER

5.	Frequency
6.	Active energy (total)
7.	Reactive energy (total)
8.	Apparent energy (total)
9.	Inter harmonic trend(voltage/ current): 0.5th to 49.5th order
10.	Vector diagram
11.	Voltage wave form - R Phase
12.	Voltage wave form - Y Phase
13.	Voltage wave form - B Phase
14.	Current wave form - R Phase
15.	Current wave form - Y Phase
16.	Current wave form - B Phase
17.	Voltage % THD- R Phase
18.	Voltage % THD- Y Phase
19.	Voltage % THD- B Phase
20.	Current % THD- R Phase
21.	Current % THD- Y Phase
22.	Current % THD- B Phase
23.	Total demand distortion (TDD) - R Phase
24.	Total demand distortion (TDD) - Y Phase
25.	Total demand distortion (TDD) - B Phase
26.	voltage unbalance (% value)
27.	current unbalance (% value)
28.	Voltage harmonic for 3rd order (phase wise)

29.	Voltage harmonic for 5th order (phase wise)
30.	Voltage harmonic for 7th order (phase wise)
31.	Current harmonic for 3rd order (phase wise)
32.	Current harmonic for 5th order (phase wise)
33.	Current harmonic for 7th order (phase wise)
34.	Instant voltage harmonic graphical trend up to 50th order (Phase wise)
35.	Instant current harmonic graphical trend up to 50th order (Phase wise)
36.	Voltage Flicker (phase wise)
37.	Voltage crest factor (Phase wise)
38.	Current crest factor (Phase wise)
39.	Voltage deviation (Under & Over)
40.	Voltage sequence component
41.	Current sequence component
42.	K- factor
43.	Dip, Swell, Interruption

In addition to above parameters, phasor diagram/waveform shall be available invariably on display.

6.12 Suitable memory capacity at least for duration of 35 days to store data require for EN50160 and IEEE 519 reports.

6.13 Instrument shall withstand impulse test at 6 kV.

Power quality reports & analysis

Following PQ reports shall provide in pdf format:

- Data for harmonics report (IEEE 519 -2014)
- Data for voltage quality report (IS17036)
- PQ event report (Sag, Swell, Interruption, Rapid voltage change)

Energy data and temper events (PQ Meter related only) shall be available in database to use for audit and analysis. The data interface shall be as per mutual agreement between bidder and utility

- Tamper/event
- Load survey
- Billing Energy
- Midnight Snap

The meter shall have feature to detect and log the occurrence and restoration of anomalies along with date and time of event.

The parameters mentioned in A, B & C are optional.

A) Following configurable events shall be provided in meter for which the persistence/restoration time can be configured through BCS:

- Over voltage
- Under voltage
- Current circuit open
- Current terminal shorting
- Reverse current direction (phase wise)
- Current missing (phase wise)
- Current unbalance
- Power fail
- Missing voltage (phase wise)
- Voltage unbalance
- Invalid Phase Association
- Invalid Voltage

B) Active and Apparent energies shall also be made available by meter in separate energy registers as:

- Active energy Import total
- Active energy Export total
- Active energy Import fundamental
- Active energy Export fundamental
- Apparent energy (while active import)
- Apparent energy (while active export)
- Net active energy

C) The reactive energy shall also be available in eight different registers as:

- Reactive import while active import
- Reactive import while active export
- Reactive export while active import
- Reactive export while active export
- Reactive import
- Reactive export
- Reactive inductive
- Reactive capacitive
- Net reactive energy
- Net Reactive high and low
- Reactive high import and export

Meter shall have provision to compute apparent energy based on lag only or lag + lead. The same shall be configured at factory end.

Load survey: Meter shall have a non-volatile memory to store the delta energy values, instantaneous parameter and power quality data values for each successive configurable integration period block. The integration period shall be configurable for each logger. It can be configured for 5, 15, or 30 Minutes.

Minimum **35 days with 15-minute** interval shall have support in PQ meter. Selection of following parameters shall have provision for logging:

- a. Energy parameters
- b. Voltage (Phase wise)
- c. Current (Phase wise)
- d. Line Voltage
- e. Frequency
- f. Power factor (Phase wise)
- g. Phase angle (Phase wise)
- h. Voltage THD (Phase wise)
- i. Current THD (Phase wise)
- j. Voltage and current harmonic

The instantaneous parameters can be configured for minimum/maximum/average or instant values for the configured integration period. It shall be possible to select either energy or demand view at Base Computer Software (BCS) end.

Optionally, the meter shall record and store below energies for billing history and daily snaps at midnight]:

- a. Cumulative active energy import
- b. Cumulative active energy export
- c. Cumulative net active (Import – Export) energy
- d. Cumulative reactive energy lag while active import
- e. Cumulative reactive energy lead while active import
- f. Cumulative reactive energy lag while active export
- g. Cumulative reactive energy lead while active export
- h. Cumulative apparent energy (while active import)
- i. Cumulative apparent energy (while active export)
- j. Cumulative Reactive High energy
- k. Cumulative Reactive Low energy

The BCS will provide facility to configure the parameters and time.

6.15 COMMUNICATION CAPABILITY

Meter shall have minimum following four ports.

1. Optical port complying with hardware specifications detailed in IEC-62056- 21 or USB port which shall be used for local data downloading through Common Meter Reading Instrument (CMRI) /Laptop.
2. Hardware port compatible with RS-232 specifications which shall be used for remote access through suitable 4G intelligent modem/DCU. (The bidder may connect communication device to meter through any port except Optical Port.)
3. Hardware port compatible with RS-485 specifications.
4. Dual Ethernet port (configurable on DLMS TCP/MODBUS TCP)

All the ports shall be able to communicate simultaneously.

Meter should support standard recommended practice for transfer of power quality data.

Sealing arrangement for all ports shall be provided. Necessary chord for connecting Optical/USB Port to Laptop of minimum length of 1 (One) metre in the ratio 50:1 shall be provided free of cost. Also software required for local meter data downloading through USB port of Laptop shall be provided, free of cost.

(b) Remote communication mode for data retrieval

For AMR communication, meter shall be provided with remote communication device such 4G intelligent modem or router or Data concentrator Unit (DCU) etc.

Such device should be embedded inside meter body or connected externally to meter with suitable interface. Technical specifications of communication device are as below.

1. The communication device should have suitable interface facility to connect with the meter by using the RS-232 cable/Ethernet cable.
2. a) The offered communication device should be capable of operating on Three phase supply drawn from the Meter input or on Auxiliary Power supply.
b) The operating voltage range for communication device should be 90 V AC P-P to 440 V AC P-P. for 3 PH power supply or 100 V to 270 V for single phase supply.
c) The communication device 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. The offered communication device should be supplied with power cable of minimum 1.5 meter length, antenna with co-axial cable of minimum 1.5 meter length, mounting adopter etc. and should complete in all respects.
4. **Sealing :-** The communication device cover and body should have arrangement for sealing. In addition to this, the SIM card holder cover should also have arrangement for sealing.
5. **Antenna:-** The communication device should have flexible external antenna having suitable gain with screw mount/ wall mount arrangement to enable placement of the antenna at the location of strongest signal.
6. **Outage Notification :** In the event of an outage, the communication device 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.
7. **Battery/Super capacitor :** The communication device should have in-built rechargeable, maintenance free battery or super capacitor having life of minimum 10 years, for sending power outage notifications as per clauseNo. 6 (Outage notification).
8. **Other requirements:-**
 - i) The communication device shall have sufficient non-volatile memory, so that the registered parameters will not be affected by loss of power.
 - ii) The communication device should be capable of operating with SIMs of local GSM Service provider in the area.
 - iii) The communication device should be capable for continuous working for 24 hours every day under field conditions, even when enclosed in Cubicles at sites.
 - iv) Communication device should support time synchronization from HES or network.
 - v) Communication device should be capable of working on intelligent mode (Push mode) and transparent mode (Pull mode).
 - vi) By default, the communication device should be working on transparent mode. For every intervals of push schedule configured in communication device, communication device should switch to intelligent mode (Push mode) and push meter data to server. Once the data is pushed successfully, communication device should switch to transparent mode, till next interval of push schedule. There should be provision of minimum three retries, if data is not pushed to server.
 - vii) It should be possible to convert mode of working of communication device 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 optionally. Also such conversion should be done through bidder's HES

Functionalities of communication device in transparent mode (Pull mode) :

- a) The communication device should act a completely transparent channel i.e. the Commands received from Head End System/MDAS should be conveyed to meter and data from meter should be conveyed to Head End System/MDAS without any changes in the mode.
- b) Data collection from meter should take place only after connection is established between Head End System/MDAS and Meter.
- c) If communication device is working in idle mode more than 5 minutes (i.e. connection is established between communication device and Head End System/MDAS but communication device does not receive any command from Head End System/MDAS for 5 minutes), communication device should close the existing connection after 5 minutes.

Functionalities of communication device in intelligent mode (Push mode) :

- a) It should be possible to configure the communication device for schedule to download data from meter (e.g. 10 minutes/15 minutes/half hourly /hourly /daily /weekly/monthly) through configuration tool and optionally through SMS.
 - b) Communication device should automatically download data from meter at configured intervals. Thereafter, communication device should automatically establish the connection with server configured and data downloaded from meter should be pushed to server.
 - c) Communication device should close the connection made with server after pushing the data to server. If connection with server could not be established then communication device should retry at least thrice.
9. Communication device shall be suitable for long duration data transmission and shall be protected from external interference of systems working at different bands.

10. **Mechanical Specifications:** - Communication device should be a compact model housed in a polycarbonate / engineering plastic / Metallic enclosure. The Metallic Enclosure should comply with IP55 degree of protection.

11. **Environmental Specifications:-** The communication device shall meet the following environmental specifications :

- a) Storage Temperature : -20 degrees to +70 degree Celsius
- b) Operating Temperature: -10 degrees to +60 degree Celsius
- c) Humidity:- 95% RH (Non - Condensing)

12. **Communication Capabilities:** -

- a) Communication device should be Dual Band capable of operating at 900 and 1800MH GSM/GPRS transmission.
- b) Communication device should support Data transmission. In addition, communication device may support SMS transmission (optional). It should have GPRS/EDGE features. In addition, it may have GSM features (optional). Communication device should be 4G and also have facility to fall back to 2G network, where 4G network is not available.

13. **Interface :-**

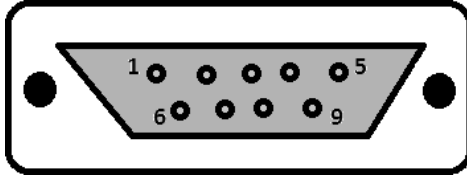
- a) Communication device should have a suitable interface such as high speed Ethernet or RS232 through a 9 pin D-type Connector, for connection to Meter. Communication device should be configured through various parameters like baud rate, data bits, stop bits, parity etc. through this port using configuration utility provided by the bidder or through AT commands. Communication device firmware should be reprogrammed using this

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port. It should be possible to view communication between meter and communication device through this port. This port should also support debugging functionality.

- b) If RS232 interface is provided on communication device, the pin configuration of DB9 connector should be as follows:

DB9 Connector diagram:



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

The pin outs shown above should not be changed. Pin 7, 8, 9 may be combined and used as Vcc. Unused signals (pins) can be made NOT CONNECTED. (NC)

- 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 communication device. The holder opening should have a sliding cover with provision for sealing after placing of the SIM card. Or Push fit type SIM cardholder which is suitably covered and sealable is also acceptable. The communication device shall accept the standard SIM Card.
- d) Communication device should have a SMA Antenna connector

14. Power :-

- a) Maximum Power Output should be 2W/3W at 900 MHz (Class 4) and 1W at 1800MHz (Class 1). The RF functionalities should comply with the GSM phase II/II+ compliant, EGSM 900/GSM 1800 recommendation.
- b) VA Burden of the communication device should not exceed 5.5 VA during data communication.

15. Sensitivity :-

GSM 900	:	< -100 dBm
GSM 1800	:	< -100 dBm

16. 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

GPRS Data transmission features:-

- i. GPRS Class B Multi slot class 12 or class B Multi slot class 10
- ii. Packet channel support: PBCCH
- iii. Coding Schemes: CS1 to CS4 compliant with SMG32 (Release97)

EDGE Data transmission features:-

- i. EDGE (EGPRS) Multi slot class 12 or Multi slot class 10
- ii. Mobile station Class B
- iii. Modulating and coding schemes: MCS 1 to 9
- iv. Packet channel support: PBCCH

17. SMS Features: -

- i. Text and PDU
- ii. Point to point (MT/MO)
- iii. Cell broadcast
- iv. White listed

18. Operational Indicator:-

The communication device should have 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 OR two LEDs for device health (Power On/Off) and Network health status.

19. Soft Reset Feature:-

Communication device should soft reset itself at least once in a day. The device firmware, settings and stored data should not be affected after soft reset. Soft reset should not be done during transfer data between communication device and Head End System/MDAS.

20. **Watchdog:** - Communication device should have internal watchdog which will monitor functioning of communication device. For any faults, communication device should auto reboot itself.

21. Communication device record half hourly/hourly Network signal strength (CSQ) (Minimum CSQ, Maximum CSQ, average CSQ) for a day. Such CSQ information & other diagnostic information should be pushed to Head End System (HES) at least once in a day.

22. Configuration of communication device:-

Communication device should support configuration through PC/Laptop and remote configuration through air.

a) Configuration through software tool:-

Bidder should provide software for communication device configuration over USB port of PC/Laptop and remote configuration using TCP/UDP and HTTP.

The parameters like baud rate, parity bit, and data bit, flow control, APN details with user name and Password, Server IP/URL for server communication, DNS settings etc. should be configured over RS232 port/Ethernet port

and remotely, over the air using this utility. The configuration parameters should be read by this utility over RS232 port/Ethernet port and remotely, over the air, without asking for opening of port with configuration (e.g. baud rate, data bits, stop bit, parity, flow control) similar to that of communication device.

Communication device should be configured over RS232 port/Ethernet port with SIM card inside the SIM card holder of communication device.

The configuration utility should be able to read/write parameters like baud rate, parity bit, data bit, flow control, APN details, Server IP etc. irrespective of the parity configured i.e. even/odd/none, over USB port and remotely, over the air.

Configuration utility should support firmware update over RS232 port/Ethernet port and remotely, over the air for various configurations. The communication device firmware should be upgraded irrespective of parity i.e. even/odd/none configured. In case of remote firmware upgrade, configuration utility should retry at least three times.

Configuration utility should read IP address of SIM card inside the communication device over RS232 port/Ethernet port.

It should be possible to convert the communication device working on transparent mode to intelligent mode and vice-versa through configuration utility locally and remotely, over the air.

b) Configuration over the air (Optional):-

It should be possible to update communication device firmware remotely, over the air.

Communication device 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, listening port.

Communication device configurations such as baud rate, parity, data bit, flow control, APN details with user name and Password, Network signal strength (CSQ), Server IP, listening port, IP address of SIM, Master SIM numbers configured should be read by sending SMS to communication device from any mobile phone. The SMS sent by communication device should be readable in mobile phones with various operating systems e.g. Android, i-OS, Windows etc.

Communication device can be configured for various parameters such as baud rate, parity, data bit, flow control, APN details with user name and Password, Server IP, listening port, Master SIM numbers by sending SMS to communication device from master SIM.

Communication device 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 and instruction set required to configure the communication device over the air should be handed over to MSEDCL. Modifications

required in communication device firmware, configuration utility should be done by the bidder, free of cost, during guarantee period.

23. Communication device should meet following EMI/EMC specifications:

1. Electrostatic Discharge IEC 61000-4-2
2. Fast Transient Burst IEC 61000-4-4
3. Immunity IEC 61000-4-5
4. Conducted emission as per IEC 61000-3-2

7.0 CONNECTIVITY SCOPE

Bidder shall use public SIM cards of any service provider.

The cost of SIM card & recurring monthly charges shall be borne by the bidder. The bidder has to decide location wise service provider.

Details of SIM cards such as SIM number, mobile number, IP address, Service Provider etc. should be available in bidder's HES.

8.0 HEAD END SYSTEM (HES)

- 8.01 The main objective of Head End System is to acquire meter data automatically from meters without any human intervention and monitor parameters acquired from meters.
- 8.02 The bidder shall provide HES which is suitable to support collection and storage of meter data as per performance level for advertised quantity of meters with facility of future expansion up to 150% of advertised quantity.
- 8.03 The HES shall be cloud enabled and support deployment with high availability clustering and automatic load balancing that ensure hardware as well as application failover. Adequate data base and security features for storage of data at HES needs to be ensured. The HES shall be deployed on cloud arranged by the bidder. Cloud charges for instance including cost of all licenses required for OS, database, software tools etc. required for hosting of HES, for entire contract period, will be borne by the bidder. Conditions for cloud deployment are as below.
 - a. All Services including data should be hosted in India.
 - b. The cloud instance should be in non-sharable mode, specifically dedicated to MSEDCL and utilized by MSEDCL only.
 - c. Data transmission charges and all charges related to data connectivity etc. should be borne by the bidder.
 - d. The bidder need to ensure that the Cloud Service Providers (CSP) facilities/services are compliant to various security standards and should be verified by third party auditors.
 - e. CSP should suitably address all the potential risks and issues in cloud implementation including data security and privacy, increased complexity in integration with existing environments, vendor lock-in, application portability between different platforms, exit management / Transition-Out Services etc.
 - f. Bidder has to retain all meter data collected during contract period. Processed Data for at least one year should be online and other data may be stored in archive mode.
 - g. MSEDCL shall be the sole custodian of the meter data. Data ownership will be entirely of MSEDCL.

f. Bidder has to sign non-disclosure agreement as per format given in Annexure-I.

- 8.04 The HES should be developed in any platform such as Java, .Net etc. based on distributed architecture for scalability without degradation of the performance. The scalability shall ensure the ability to handle applicable workloads up to 150% of advertised quantity of meters.
- 8.05 Following minimum functions should be supported by HES.
- a. **Acquisition of meter data on demand & at user selectable periodicity:**
Meter data pushed by meters should be received by HES & stored in database along with relevant details. Also there should be provision to pull meter data, on demand. On demand meter read may be for single meter (unicast) or for a group of meters (multicast).
 - b. **Configuration of communication device:** Following communication device configuration should be possible through HES.
 - i. Configuration for schedule to download & push data from meter (e.g. 10 minutes/15minutes/half hourly/hourly/daily/weekly/monthly).
 - ii. Convert mode of working of communication device from intelligent mode (Push mode) to transparent mode (Pull mode) and vice-versa.
 - iii. Configuration of parameters such as server IP/URL, listening port etc.
 - c. Store raw data for minimum 30 days, before it is transferred to the MSEDCL MDAS.
 - d. Manage time distribution to ensure that meters always have an accurate RTC.
 - e. Setting of meter programmable parameters
- 8.06 Following facilities should be available in HES.
- a. Monitoring of power quality events eg. Sag ,swell, flickers etc.
 - b. Monitoring of 10 Min aggregated data (Harmonic Parameters)
 - c. Data monitoring at every 15 Min block.
 - d. Power quality compliance reporting
 - e. Reliability indices - SAIFI, SAIDI, CAIDI
 - f. Dashboard for 10 min aggregated data for supply quality parameters.
 - g. Reports & Trend monitoring
- 8.07 HES shall support reporting functionalities. Reports for following parameters should be available.
- a. Voltage variation
 - b. Voltage flicker
 - c. Voltage unbalance
 - d. Voltage Dips/Swells
 - e. Short Voltage interruptions
 - f. Voltage Harmonics
 - g. Current Harmonics
 - h. Weekly/monthly report for supply quality EN 50160
 - i. Weekly/ monthly report for harmonic emission IEEE 519 (2014)
 - j. Weekly/ monthly report as per IS 17036.
 - k. Any other power quality compliance report as per requirement of MSEDCL.

There should be provision to export these reports in any format such as PDF/Excel/Word.

- 8.08 HES shall be suitable for power quality meter configuration for CT/VT ratio, Power quality events threshold, Power quality report parameters, Time set, Logger interval configuration and profile data reading through authenticated keys or there should be provision to make such configuration locally through BCS.
- 8.09 Access of HES should be given to MSEDCL team with administrator role. MSEDCL users should be able to monitor and control the HES.
- 8.10 Data upload: In case of meters are not communicating with HES, meter data of power quality meters will be downloaded locally and there shall be provision to upload the same in HES.
- 8.11 Integration with MSEDCL MDAS: HES should be integrated with MSEDCL MDAS. HES shall export all meter data to MSEDCL MDAS. The integration should be done using web service based APIs or DB to DB. Inter application data exchange may be done through JSON/XML format.
- 8.12 MSEDCL may suggest changes in functionalities, reports in HES. The bidder shall modify the HES as per the MSEDCL requirements, without any additional cost, during FMS period.
- 8.13 Successful bidder should demonstrate & deploy HES on cloud, before commencement of supply. Also bidder should submit Read API (API1, API2) and convert API (API3), before commencement of supply. Read API should be able to read meter data through AMR & locally. Convert API should be able to convert meter data read through AMR & locally into XML format. Also bidder should submit software to read meter manually through USB port of Laptop. As and when the meter manufacturer releases new or latest or advanced versions of meter hardware / firmware / software, the same shall be made available to purchaser immediately on the release date, free of cost.
- 8.14 After expiry of FMS period, HES should be handed over to MSEDCL.

9.0 MARKINGS

The Meter shall be marked legibly with the following information:

- i. Name or trade mark of manufacturer
- ii. Year and month of manufacture
- iii. Country of origin
- iv. Type/model and serial number

10.0 TYPE TEST & CALIBRATION CERTIFICATES & CYBER SECURITY CERTIFICATE:

The Power Quality Meter shall be supplied along with the valid calibration certificate as per relevant standards. The Power Quality Meter shall be supplied along with the valid calibration certificate as per relevant standards.

- Power quality compliance certificate as per IEC 61000-4-30 Ed. 3, IEC 62586-2 (Class-A)
- Type test report (IS 14697) amended up to date (if applicable.)
- Test Report of DLMS 15959, CAT B amended up to date
- IEC 62443-4-1 & 2 Cyber Security Compliance (for Software System)
- BIS compliance of manufacturing facility

Communication device should be type tested. Required certificates issued by any Govt. Body/NABL accredited lab is to be produced in this regard.

11.0 GUARANTEED TECHNICAL PARTICULARS

The tenderer shall furnish the particulars giving specific required details of meters in schedule 'A' attached. The offers without the details in Schedule 'A' stand rejected.

12.0 PACKING:

The Meter shall be suitably packed in corrugated boxes in order to avoid damage during transit or handling.

13.0 QUALITY CONTROL

The purchaser shall send a team of experienced engineers for assessing the capability of the firm for manufacturing of meters as per this specification. The team should be given all assistance and co - operation for inspection and testing at the bidder's works. 3 /tender samples should be kept ready for assessing and testing. The tenderer has to give all facilities for carrying out the testing of these samples

14.0 TRAINING

The successful bidder shall depute their representative to train MSEDCL's Engineers at their works of familiarization of design, application, operation & maintenance of the instrument of purchaser as and when they will be called for at no extra cost.

15.0 ACCESSORIES

- i. Power cables
- ii. Voltage cables
- iii. Standard warranty certificate and installation manual

16.0 GUARANTEE

The instrument shall be guaranteed for a period of 60 months from the date of commissioning or 66 months from the date of receipt whichever is earlier. The instrument found defective within above guarantee period shall be replaced / repaired / rectified by the supplier free of cost, within one month of receipt of intimation. After the replacement / repairs / rectification, the accuracy shall not be affected. Test certificate and calibration certificate shall invariably be submitted after rectification / repairs.

If defective equipment is not replaced / repaired / rectified within the specified period as above, the Company shall recover an equivalent amount plus 15% supervision charges from any of the bills of the supplier.

17.0 SCHEDULES.

The tenderer shall fill in the following schedules, which are part and partial of the tender specification and offer. If the schedules are not submitted duly filled in with the offer, the offer shall be liable for rejection.

Schedule 'A'	Guaranteed and technical particulars. (As per GTP uploaded on e - tendering site)
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The discrepancies if any between the specification and the catalogs and / or literatures submitted as part of the offer by the bidders, the same shall not be considered and representations in this regard shall not be entertained. If it is observed that there are deviations in the offer in Guaranteed Technical Particulars, then, such deviations shall be treated as deviation.

SCHEDULE - "A"
GUARANTEED AND TECHNICAL PARTICULARS

ITEM NAME	THREE PHASE POWER QUALITY METER	
SR. NO.	PARTICULARS	GTP VALUES
(1)	BIDDER NAME & ADDRESS	TEXT
(2)	TYPE / MODEL DETAILS OF EQUIPMENT	TEXT
(3)	CLASS OF POWER QUALITY METER (CLASS -A)	BOOLEAN
(4)	SOFTWARE SHOULD BE CYBER SECURITY COMPLIANT AS PER IEC62443-4-1&2	BOOLEAN
(5)	OPERATING EXPERIENCE OF THE BIDDER	TEXT
(6)	METER SHALL MEASURE VOLTAGE CURRENT, POWER FACTOR, TRUE POWER AND APPARENT POWER ALONG WITH VOLTAGE AND CURRENT HARMONICS IN ELECTRICAL SYSTEMS	BOOLEAN
(7)	COMPLIANCE TO ALL APPLICABLE STANDARDS MENTIONED UNDER CLAUSE NO. 4.00	BOOLEAN
(8)	FREQUENCY	TEXT
(9)	ACCURACY OF POWER QUALITY METER	TEXT
(10)	RATED VOLTAGE	TEXT
(11)	VOLTAGE RANGE	TEXT
(12)	RATED CURRENT	TEXT
(13)	METER SHALL MEASURE TRUE RMS PHASE TO PHASE AS WELL AS PHASE TO NEUTRAL VOLTAGE WITH MINIMUM AND MAXIMUMVALUES	BOOLEAN
(14)	METER SHALL MEASURE TRUE RMS PHASE TO PHASE AS WELL AS PHASE TO NEUTRAL CURRENT WITH MINIMUM AND MAXIMUM VALUES AND PHASE DISPLACEMENT	BOOLEAN

 TECHNICAL SPECIFICATIONS OF THREE PHASE POWER QUALITY METER

(15)	METER SHALL INDICATE ANGLE DISPLACEMENT BETWEEN VOLTAGE AND CURRENT AS WELL AS THREE PHASE VOLTAGESEQUENCE	BOOLEAN
(16)	METER SHALL MEASURE ACTIVE, REACTIVE AND APPARENT POWER PER EACH PHASE AND ALSO TOTAL VALUES FOR THREE PHASES	BOOLEAN
(17)	METER SHALL MEASURE VOLTAGE AND CURRENT HARMONICS MINIMUM UPTO 50 TH ORDER FOR EACH PHASE EXPRESSED AS A PERCENTAGE OF FUNDAMENTAL	BOOLEAN
(18)	METER SHALL MEASURE ALL QUANTITIES MENTIONED IN CLAUSE NO. 6.1 1	BOOLEAN
	METER SHALL MEASURE TOTAL HORMONICS DISTORTION (THD) OF VOLTAGE AND CURRENT	BOOLEAN
(19)	METER SHALL DISPLAY WAVEFORMS OF THE MEASUREMENTS OF VOLTAGE, CURRENT, POWER FACTOR AND HARMONICS	BOOLEAN
(20)	METER SHALL HAVE MINIMUM OF 5 .0 INCHCOLOR TFT DISPLAY	BOOLEAN
(21)	CALIBRATION CERTIFICATE SUBMITTED ALONGWITH OFFER	BOOLEAN
(22)	CALIBRATION CERTIFICATE NOS. & DATE	TEXT
(23)	SUPPLIER AGREES TO SUPPLY ALL ACCESSORIES AS PER TECHNICAL SPECIFICATION	BOOLEAN
(24)	SUPPLIER AGREES TO DEPUTE THEIR REPRESENTATIVE TO EDUCATE ENGINEERS OF PURCHASER AS AND WHEN THEY WILL BE CALLED FOR AT NO EXTRA COST	BOOLEAN
(25)	GUARANTEE OF POWER QUALITY METER AS PER CLAUSE NO. 16 .0 OF THIS SPECIFICATION	TEXT
(26)	PORTS PROVIDED ON METER	TEXT
(27)	BAUD RATE OF PORTS PROVIDED ON METER	TEXT
(28)	MAKE AND TYPE OF COMMUNICATION DEVICE	TEXT
(29)	OPERATING VOLTAGE RANGE OF COMMUNICATION DEVICE	TEXT
(30)	MAKE AND CHIP SET DETAILS OF COMMUNICATION MODULE USED IN COMMUNICATION DEVICE	TEXT

 TECHNICAL SPECIFICATIONS OF THREE PHASE POWER QUALITY METER

(31)	MAKE AND CHIP SET DETAIL OF MICRO CONTROLLER USED IN COMMUNICATION DEVICE	TEXT
(32)	GAIN OF ANTENNA SUPPLIED	TEXT
(33)	MAKE, TYPE AND CAPACITY OF BATTERY USED IN COMMUNICATION DEVICE	TEXT
(34)	SIZE OF NON-VOLATILE MEMORY IN COMMUNICATION DEVICE	TEXT
(35)	COMMUNICATION DEVICE COVER AND BODY HAVE SEALING ARRANGEMENT	BOOLEAN
(36)	SEALING ARRANGEMENT FOR COMMUNICATION DEVICE	BOOLEAN
(37)	INTERFACES AVAILABLE ON COMMUNICATION DEVICE	TEXT
(38)	OPERATIONAL INDICATORS PROVIDED ON COMMUNICATION DEVICE	TEXT
(40)	CONFIGURATION UTILITY IS ABLE TO CONFIGURE COMMUNICATION DEVICE FOR VARIOUS PARAMETERS GIVEN IN TENDER DOCUMENT	BOOLEAN
(41)	OVER THE AIR CONFIGURATION SUPPORTED BY COMMUNICATION DEVICE	BOOLEAN
(42)	COMMUNICATION DEVICE IS TYPE TESTED	BOOLEAN
(43)	COMMUNICATION DEVICE TYPE TEST REPORT NUMBER AND DATE	TEXT

LIST OF SERVICES

SR. NO.	SERVICE NAME	ACTIVITY NUMBER	UOM	SAC CODE	REQ. QTY	VERSION	MATERIAL TYPE
1	Installation Commisioning of	PM.OTH.INS TALL	Activity unit	998736	1500		null

Required Documents (To be uploaded online)

Sr. No.	NAME	SECTION	ITEM	DESCRIPTION
1	Annexure-VI: Price Bid Format	Price Section	Installation Commissioning	Annexure-VI: Price Bid Format
2	Guaranteed Technical Parameters (GTP) as per Technical Specifications	Technical Section	Installation Commissioning	Guaranteed Technical Parameters (GTP) as per Technical Specifications
3	Documentary Evidence for QAP of Technical Specification	Technical Section	Installation Commissioning	Documentary Evidence for QAP of Technical Specification
4	Annexure-XII: Offered Quantity	Commercial Section		Annexure-XII: Offered Quantity
5	List of year wise, item wise orders executed and under execution duly certified by C.A.	Commercial Section		List of year wise, item wise orders executed and under execution duly certified by C.A.
6	Annexure-VII: No Deviation Proforma	Commercial Section		Annexure-VII: No Deviation Proforma
7	Notarized Power of attorney in favor of appointed agent/representative.	Commercial Section		Notarized Power of attorney in favor of appointed agent/representative.
8	Copy of latest turnover certificate for the product offered for the last 3 years duly certified by C	Commercial Section		Copy of latest turnover certificate for the product offered for the last 3 years duly certified by Chartered engineer/accountant
9	The bidder shall submit the undertaking certifying that you have not approached any one for undue in	Commercial Section		The bidder shall submit the undertaking certifying that you have not approached any one for undue influence
10	Doc. Evidence in support of Qualifying Requirement (QR) cl.2.5.	Commercial Section		Doc. Evidence in support of Qualifying Requirement (QR) cl.2.5.
11	ISO and BIS Certificates	Commercial Section		ISO and BIS Certificates
12	Doc.Evidence from NSIC/DIC of not crossed prescribed monetary limit/limit for invest. in plant & m/c	Commercial Section		Doc.Evidence from NSIC/DIC of not crossed prescribed monetary limit/limit for invest. in plant & m/c
13	Submit declaration regarding No Pending Legal Litigation of any type against MSEDCL in any Court/For	Commercial Section		Submit declaration regarding No Pending Legal Litigation of any type against MSEDCL in any Court/Forum
14	Annexure-V: Commitments of tenderer/ contractor	Commercial Section		Annexure-V: Commitments of tenderer/ contractor
15	Annexure-X: Check list	Commercial Section		Annexure-X: Check list
16	Annexure-II: For Authorized Assignee/	Commercial Section		Annexure-II: For Authorized Assignee/ Nominee in case of Foreign Bidder

Sr. No.	NAME	SECTION	ITEM	DESCRIPTION
Nominee in case of Foreign Bidder				
17	Annexure-I: Indemnity Bond for Foreign Bidder/Manufacturer	Commercial Section		Annexure-I: Indemnity Bond for Foreign Bidder/Manufacturer
18	Certificate duly certified by C.E./C.A. that the person/entity does not have controlling stake in mo	Commercial Section		Certificate duly certified by C.E./C.A. that the person/entity does not have controlling stake in more than one entity applied for the Tender/Bid
19	Annexure XI: Milestone	Commercial Section		Annexure XI: Milestone
20	Annexure-VIII : Proforma for Service Level Agreement (SLA)	Commercial Section		Annexure-VIII : Proforma for Service Level Agreement (SLA)
21	Annexure-IV (A): Proforma for Bid Security (EMD)	Commercial Section		Annexure-IV (A): Proforma for Bid Security (EMD)
22	Doc.Evid. in respect of classification of your unit as per Micro, Small and Medium Enterprises	Commercial Section		Doc.Evid. in respect of classification of your unit as per Micro, Small and Medium Enterprises