

#### 1.0 SCOPE:

This specification covers design, manufacturing, testing and supply of Meter Box having Base made out of Sheet Moulding Compound (SMC confirming to IS: 13410) and Cover made out of Fully Transparent Polycarbonate Material confirming to IS: 14772 / 2000 (amended upto date). The Meter Box shall be suitable for housing Single Phase as well as Three Phase Energy Meters on wall mounting in indoor as well as outdoor applications.

#### 2.0 **QUALIFYING REQUIREMENTS:**

- 2.1 Offers of manufacturers / suppliers of Energy Meters Boxes shall be accepted against the Tender.
- 2.2 The following qualifying requirement shall be fulfilled by the bidders.
- (a) The bidder should have turnover of 60% of the estimated cost of the tender during any one of the last three financial years.
- (b) The bidder should have supplied one lakh energy meter boxes during the last three financial years.
- (c) The bidder should have minimum experience of three years of supply or manufacturing for meter boxes upto the end of the last financial year.
- 2.3 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 fulfils the minimum experience of three years of supply or manufacturing of meters boxes upto the end of the last financial year. However, the conditions of turnover of 60% of the estimated cost of the tender during any one of the last three financial years and supply of minimum quantity of one lakh meter boxes during last three financial years can be fulfilled by the parent company located in abroad on behalf of their Indian subsidiary company. The parent company shall furnish undertaking for accepting responsibility for supplying quality meter boxes as per specifications and execution of the contract on behalf of its India based subsidiary unit who has participated in the tender in Annexure U-I.
- 2.4 In case of offers of foreign bidders/manufacturers, they shall fulfill Qualifying Requirement as per Sr. No. 2.1 and 2.2 above.

#### 3.0 **SERVICE CONDITIONS:**

The meter box to be supplied against this specification shall be suitable for satisfactory continuous operation under the following service conditions.

Maximum & ambient air temperature	50° C
Maximum relative humidity	100%
Maximum annual rainfall	1450 mm
Maximum wind pressure	150 Kg/mtr <sup>2</sup>
Maximum altitude above mean sea level	1000 mtrs.
Seismic level (Horizontal acceleration)	0.3 g
Climatic condition	Moderately hot and humid Tropical
	climate conducive to rust and fungus
	growth
Ref. Ambient temperature for temperature rise	50° C



#### 4.0 APPLICABLE STANDARDS:

Unless otherwise modified in this specification, the meter box shall generally confirm to IS: 14772 / 2000 (Amended upto date) and material of construction i.e. SMC and Polycarbonate shall confirm to IS: 13410 / 1992 & IS: 14434 respectively and requirement of this specification.

#### 5.0 <u>DESIGN & CONSTRUCTION:</u>

- 5.1 The Meter box shall be so constructed as to have roof tapering down for easy flow of rainwater. It should be moulded using 100% virgin raw material, SMC as well as Polycarbonate. The box shall be weather proof, unbreakable, scratch resistant having good workmanship.
- 5.2 The Meter box shall be made of anti corrosive, dust proof, rust proof, vermin and water proof, ultra violet stabilized and flame retardant high grade virgin material having good dielectric and mechanical strength property.
- 5.3 The minimum inside dimensions of the meter box shall be suitable for installation of all types of meters purchased from various meter manufacturers.
- 5.4 The three phase meter box shall be such that there should be minimum 100 mm clearance at the bottom, 75 mm clearance on all three sides, 25 mm clearance at the front and 10 mm clearance at the back between meter and meter box inner wall.
- 5.5 The single phase meter box shall be such that there should be minimum 60 mm clearance at the bottom, 40 mm clearance on all three sides, 25 mm clearance at the front and 10 mm clearance at the back between meter and meter box inner wall.
- 5.6 The wall thickness of the meter box base suitable for single phase shall be minimum 1.5 mm & that of three phase shall be minimum 2 mm and cover shall be minimum 2 mm. It should have base raised by about 10 mm in the box for easy wiring for fixing the meter. The meter screws shall not protrude outside.
- 5.7 Minimum Internal Dimensions of the meter box shall be as follows. Single Phase Meter Box: 260 mm (H) x 190 mm (W) x 120 mm (D) Three Phase Meter Box: 485 mm (H) x 340 mm (W) x 185 mm (D)
- 5.8 The tolerance permissible on the various dimensions of the meter box shall be + 1%.
- 5.9 The meter box base shall be made from thermosetting plastic i.e. glass reinforced polyester sheet moulding compound confirming to IS: 13410 /1992, Grade S1 and cover from fully transparent polycarbonate material grade ISPCXXXXILRC11243F34 as per IS: 14434 & requirement of this specification.
- 5.10 The base and cover of meter box shall be individually in one piece except for fixing of accessories like push fit, clamp, handles, meter mounting, etc and all metal part excluding hardware shall be of stainless steel only.
- 5.11 The base and cover must be UV stabilized to ensure that it does not get 'Yellow' over a period of time. It should not change in colour, shape, size, dimensions when subjected to 200 hrs on UV ageing test as per ASTM: G53 (Cl. No. 9.3), 4 Hours UV at 60° C and 4 Hours Condensation at 50° C. The base and cover shall be capable of withstanding temperature of boiling water for five minutes continuously without distortion or softening.
- 5.12 The cover shall be made overlapping type having collars on all four sides. The cover of meter box shall have 4 nos. of non-detachable self-locking push fit type



- arrangement. It should have suitable non-detachable fitting to base such that if pushed once inside, the cover shall rest on the base of box in such a way that any access from outside to the meter is not possible.
- 5.13 The cover in closed position should be overlapped on base such that direct entry of screwdriver, tool or film is not possible. The cover shall be provided with semi circular / circular gasket of sufficient size to completely fit to the base. The gasket should be made out of good quality neoprene rubber.
- 5.14 The cover of Transparent Polycarbonate Material shall have light transmission of 80% or more (to be tested as per ASTM D 1003). This will facilitate photometer reading as well as transparency. This will facilitate photometer reading as well as transparency.
- 5.15 Meter Box Base and cover shall have minimum 2 nos. of matching Wire Sealing holes as shown in drawing for MSEDCL sealing purpose.
- 5.16 Meter box shall confirm to IP-51.
- 5.17 The mounting arrangement of the meter in the meter box shall be by way of adjustable slotted stainless steel strips of thickness 3 mm which shall be fixed on the base by providing raised groove with internal threads and 4 Nos. of 4 mm diameter, 8 mm long full thread screws as per drawing enclosed to suit mounting of various make of meters.
- 5.18 4 nos. of keyholes of diameter 6 mm shall be provided at the backside of the meter box to facilitate mounting of the meter box on the wall or pole. 4 nos. of 75 mm long 6 mm diameter mounting screws with washers shall be provided along with the meter box.
- 5.19 2 nos. of holes with polymeric material collapsible glands of maximum diameter of 12 mm for single phase and 25 mm for three phase meters shall be provided at the bottom of meter box for incoming and outgoing cables.
- 5.20 The surface appearance or part of Meter Box must be smooth, non porous and homogeneous, free from ripples, defects and marks. No fillers or fibres should be visible at any place.
- 5.21 The Meter Box shall comply with magnetic influence of AC / DC / 0.5 Tesla Permanent Magnet when tested as per Meter Testing Method of CBIP Report No. 88 with Meter having 0.5 Tesla Magnetic Immunity mounted in it.

#### **6.0 TESTS:**

The meter box shall be fully type tested as per IS 14772 / 2000 (amended up to date), IS: 13410 / 1992 & IS: 14434. The type test report of meter box having identical constructional and other features carried out during last three years will be valid. The type test report shall clearly indicate the constructional features identifying material of construction and its grade / composition as per respective IS and other type tests as well as acceptance tests as per table below. All the Type Tests shall be carried out from Laboratories which are accredited by the National Board of Testing and Calibration Laboratories (NABL) of Govt. of India such as CPRI, Bangalore / Bhopal, ERDA Baroda, to prove that the meter box meets the requirements of specification. Type Test Reports conducted in manufacturers own laboratory and certified by testing institute shall not be acceptable. The tenderer shall also furnish the particulars giving specific required details of Meter boxes in



schedule 'A' attached (As per Guaranteed Technical Particulars uploaded on e - Tendering site). The offers without the details in Schedule 'A' stand rejected. The tenderer shall submit all the type test reports as below along with offer. Separate type Test Reports for each offered type of meter box shall be submitted. The purchaser reserves the right to demand repetition of some or all the type tests in presence of purchaser's representative at purchaser's cost.

The meter box shall pass all the acceptance and routine tests as laid down in IS 14772 / 2000 (amended up to date) & IS: 14434 and also additional acceptance tests as prescribed in this specification.

The Type Test certificates as per table below shall be got approved from the Chief Engineer (Distribution) before commencement of supply.

#### TYPE TEST & ACCEPTANCE TESTS (Test 1 to 8 for Base & Cover)

SN	Test	Reference Standard	Required Value	
1	Flammability	UL-94 / IS: 1173	V2	
2	Self extinguishing	IS: 4249	SE	
3	Heat Deflection Temperature	IS: 13411 Annex. H	Base = ≥ 150° C	
	@ 1.8 MPA	/ ISO 75	Cover = ≥ 150° C	
4	Glow Wire Test	IS: 11000 (P2/S1)	Base = 900°C	
		or IEC – 695-2-1	Cover = 900°C	
5	Ball Pressure Test	IS: 14772 / 2000 /	Confirms	
3		IEC 335	Commis	
6	Water Absorption	IS:14772 / 2000	$= \leq 0.25\%$ .	
7	Mechanical strength	IS:14772 / 2000	≥ 50 MPA	
8	Marking, Dimension &	IS:14772 / 2000	As per IS	
0	Construction	13.14772 / 2000	As per IS	
9	Material Identification of Base	N.A.	Sheet Moulding Compound	
10	Material Identification of	N.A.	Polycarbonate	
10	Cover		1 Olycarbonate	
11	UV Ageing Test for 200 Hours	ASTM G53 (9.3)	Confirms	
12	Light Transmission	ASTM D 1003	≥ 80%	
	(Transparency) for Cover	ASTWI D 1003		

In addition to above, all other tests according to IS: 14772 / 2000.

For Acceptance Test, 10 Samples for each lot offered for inspection shall be selected randomly.

#### 7.0 TESTING AND MANUFACTURING FACILITIES:

- 7.1 The Bidder shall have necessary machinery for production of SMC Base & Transparent Polycarbonate Lid of meter box.
- 7.2 Manufacturer should have in house testing facilities for carrying out routine and acceptance tests as per IS: 14772/2000 and Annexure 'A' excluding material identification, UV Ageing Test for 200 Hours and light transmission tests (Sr. No. 9, 10, 11 & 12). (As per Guaranteed Technical Particulars uploaded on e Tendering site)
- 7.3 The Bidder shall have the testing facility of flammability test of V0.



### DRAWINGS / SAMPLES:

Enclosed drawings are only for general guidelines, however, the detailed dimensional drawing showing clearly the dimensions and material for meter box and its constructional features shall invariably be furnished with the offer.

#### 9.0 GUARANTEE:

8.0

The meter box shall be guaranteed for a period of five years from the date of commissioning or five and half years from the date of dispatch whichever is earlier. The meter boxes found defective within above guarantee period shall be replaced by the supplier free of cost within one month of receipt of intimation. If the defective material is not replaced within specified period as above, the Company shall recover an equivalent amount plus 15% supervision charges from any of the bills of the supplier.

#### 10.0 MARKINGS:

The following information shall clearly & indelibly be printed on the cover of the meter box.

1)Purchaser's Name	: MSEDCL
2)Code name of manufacturer	:
3)Purchase order number and date	:
4)Year and month of manufacture	:
5)Guarantee	:Years
6)Sign of Danger	
7)Meter Box Sr. No.	•

#### 11.0 INSPECTION:

The manufacturer shall give minimum 14 days notice for inspection of material.

#### 12.0 PACKING:

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

#### 13.0 SCHEDULES:

The tenderer shall fill in the following schedules and submit along with the offer. If the schedules are not submitted duly filled in with the offer, the offer shall be rejected.

Schedule 'A' ... Guaranteed Technical particulars (As per GTP parameters uploaded on e- Tendering site.)

Schedule 'C' ... Tenderer Experience

The discrepancies, if any, between the specification and the catalogs and/or literatures submitted as part of the offer by the bidders, shall not be considered and representations in this regard will not be entertained. If it is observed that there are deviations in the offer in Guaranteed Technical Particulars other than those specified in the deviation schedules then such deviations shall be treated as deviations.



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#### SHEDULE 'A'

#### **GUARANTEED TECHNICAL PARAMETERS**

ITEM NAME: LT AC STATIC SINGLE PHASE 5 - 30 AMPS AND THREE PHASE 10 - 40			
AMPS ENERGY METER COMBINED (PC + SMC) METER BOX.  GTP			
S. N.	GUARANTTED TECHNICAL PARAMETERS	VALUE	
1.0	MANUFACTURER'S / SUPPLIER'S NAME AND ADDRESS WITH WORKS ADDRESS	TEXT	
2.0	MATERIAL OF CONSTRUCTION:		
2.1	WHETHER SMC GRADE S1 IS USED FOR CONSTRUCTION OF BASE OF METER BOX. (YES / NO)	BOOLEAN	
2.2	WHETHER POLYCARBONATE MATERIAL OF GRADE ISPCXXXXILRC11243F34 IS USED FOR CONSTRUCTION OF LID OF METER BOX. (YES / NO)	BOOLEAN	
2.3	CONFIRM SMC MATERIAL USED IS VIRGIN. (YES / NO)	BOOLEAN	
2.4	CONFIRM POLYCARBONATE MATERIAL USED IS VIRGIN. (YES / NO)	BOOLEAN	
2.5	CONFIRM SMC MATERIAL USED IS UV STABILIZED. (YES / NO)	BOOLEAN	
2.7	CONFIRM POLYCARBONATE MATERIAL USED IS UV STABILIZED. (YES / NO)	BOOLEAN	
3.0	CONSTRUCTIONAL FEATURES OF THE METER BOX:		
3.1	DIMENSIONS OF METER BOX L X B X H	TEXT	
3.2	CONFORM SHEET THICKNESS OF BASE OF SINGLE PHASE METER BOX IS MINIMUM 1.5 MM (YES /NO)	BOOLEAN	
3.3	CONFORM SHEET THICKNESS OF BASE OF THREE PHASE METER BOX IS MINIMUM 2.0 MM (YES /NO)	BOOLEAN	
3.4	SHEET THICKNESS OF COVER OF METER BOX IS 2 MM MINIMUM (YES /NO)	BOOLEAN	
3.5	MINIMUM CLEARANCE OF 25 MM AT FRONT SIDE BETWEEN METER AND METER BOX INNER WALL FOR 1Ø & 3Ø METER BOX (YES / NO)	BOOLEAN	
3.6	MINIMUM CLEARANCE OF 10 MM AT BACK BETWEEN METER AND METER BOX INNER WALL FOR 1Ø & 3Ø METER BOX (YES / NO)	BOOLEAN	
3.7	MINIMUM CLEARANCE OF 100 MM AT BOTTOM BETWEEN METER AND METER BOX INNER WALL FOR 3Ø METER BOX (YES / NO)	BOOLEAN	
3.8	MINIMUM CLEARANCE OF 75 MM ON ALL THREE SIDES BETWEEN METER AND METER BOX INNER WALL FOR 3Ø METER BOX (YES / NO)	BOOLEAN	
3.9	MINIMUM CLEARANCE OF 60 MM AT BOTTOM BETWEEN METER AND METER BOX INNER WALL FOR SINGLE PHASE METER BOX (YES / NO)	BOOLEAN	
3.10	MINIMUM CLEARANCE OF 40 MM ON ALL THREE SIDES BETWEEN METER AND METER BOX INNER WALL FOR SINGLE PHASE METER BOX (YES / NO)	BOOLEAN	
3.11	WEIGHT OF COMPLETE METER BOX IN KGS.	TEXT	
3.12	METER BOX IS TYPE TESTED (YES / NO)	BOOLEAN	



	(Revised dtd. 21.11.09)	
3.13	METER BOX CONFIRMS TO IP-51 (YES / NO)	BOOLEAN
3.14	TYPE TEST REPORT NO. (QUOTE SEPARATELY FOR THREE	TEXT
0.14	PHASE & SINGLE PHASE)	112/11
3.15	APPLICABLE STANDARD IS: 14772 / 2000 (AMENDED UPTO DATE),	BOOLEAN
3.13	IS: 13410 & IS: 14434 (YES / NO)	BOOLEAN
4.0	PROPERTIES OF THE MATERIAL OF CONST. OF METER BOX	X BASE:
4.1	CONFIRM FLAMMABILITY AS V <sub>2</sub> AS PER UL 94 / IS 1173 (YES /NO)	BOOLEAN
4.2	CONFIRM SELF EXTINGUISHING AS SE AS PER IS: 4249. (YES /NO)	BOOLEAN
4.3	CONFIRM HEAT DEFLECTION TEMPERATURE OF BASE > 150°C @	DOOLDAN
	1.8 MPA AS PER IS:13411, ANNEXURE 'H' / ISO 75 (YES /NO)	BOOLEAN
	CONFIRM GLOW WIRE TEST AT 900° C AS PER IS: 11000 (PART 2 /	DOOLDAN
4.4	SECTION 1) / IEC-695-2-1 (YES /NO)	BOOLEAN
	CONFIRM BALL PRESSURE TEST AS PER IS: 14772/2000 / IEC 335	
4.5	(YES / NO)	BOOLEAN
	CONFIRM 200 HRS UV AGEING TEST IS CARRIED OUT AS PER	
4.6	ASTM G53 (9.3). (YES /NO)	BOOLEAN
	CONFIRM WATER ABSORPTION VALUE = < 0.25% AS PER IS: 14772	
4.7	/ 2000. (YES /NO)	BOOLEAN
	CONFIRM MECHANICAL STRENGTH > 50 MPA AS PER IS: 14772 /	
4.8	2000. (YES /NO)	BOOLEAN
4.9	CONFIRM FLEXURE STRENGTH < 155 MPA. (YES /NO)	BOOLEAN
4.10	CONFIRM MODULUS OF ELASTICITY 12 X 10 <sup>2</sup> MPA. (YES /NO)	BOOLEAN
	CONFIRM IZOD IMPACT STRENGTH NOTCHED = 45 KJ / METER <sup>2</sup>	
4.11	MINIMUM. (YES /NO)	BOOLEAN
	CONFIRM MATERIAL SMC DOES NOT MELT TEST UPTO 400°C.	
4.12	(YES /NO)	BOOLEAN
5.0	PROPERTIES OF TRANSPARENT POLYCARBONATE COV	ER:
5.1	CONFIRM FLAMMABILITY AS V <sub>2</sub> AS PER UL 94 / IS 1173. (YES /NO)	BOOLEAN
5.2	CONFIRM SELF EXTINGUISHING AS SE AS PER IS 4249. (YES /NO)	BOOLEAN
	CONFIRM HEAT DEFLECTION TEMPERATURE > 150° C @ 1.8 MPA	
5.3	AS PER IS: 13411, ANNEXURE 'H' / ISO 75. (YES /NO)	BOOLEAN
	CONFIRM GLOW WIRE TEST AT 900° C AS PER IS: 11000 (PART 2 /	
5.4	SECTION 1) / IEC 695-2-1. (YES /NO)	BOOLEAN
	CONFIRM BALL PRESSURE TEST AS PER IS: 14772 / 2000 OR IEC	
5.5	335 (YES / NO)	BOOLEAN
	CONFIRM 200 HRS UV AGEING TEST IS CARRIED OUT AS PER	
5.6	ASTM G53 (9.3). (YES /NO)	BOOLEAN
	CONFIRM WATER ABSORPTION VALUE < 0.25% AS PER IS: 14772 /	
5.7	2000 (YES /NO)	BOOLEAN
<b>F</b> 6	CONFIRM MECHANICAL STRENGTH > 50 MPA AS PER IS: 14772 /	D0077
5.8	2000. (YES /NO)	BOOLEAN
5.9	CONFIRM FLEXURE STRENGTH < 155 MPA. (YES /NO)	BOOLEAN
	CONFIRM MODULUS OF ELASTICITY 12X 10 <sup>2</sup> MPA. (YES /NO)	
5.10		BOOLEAN
5.11	CONFIRM IZOD IMPACT STRENGTH NOTCHED = 45 KJ / METER <sup>2</sup>	BOOLEAN
	MINIMUM. (YES /NO)	DOODDIN



	(Revised dtd. 21.11.09)		
5.12	CONFIRM LIGHT TRANSMISSION ≥ 80% AS PER ASTM D 1003. (YES/NO)	BOOLEAN	
6.0	OTHER FEATURES		
		DOOLEAN	
6.1	SELF-LOCKING ARRANGEMENT 4 NOS. MINIMUM (YES /NO)	BOOLEAN	
6.2	MINIMUM 2 NOS. HOLES FOR WIRE SEAL FOR BASE (YES / NO)	BOOLEAN	
6.3	MINIMUM 2 NOS. HOLES FOR WIRE SEAL FOR COVER (YES / NO)	BOOLEAN	
6.4	MINIMUM 2 NOS. COLLAPSIBLE POLYMERIC GLANDS ON THE	BOOLEAN	
0.4	BOTTOM OF BASE (YES/NO)	BOOLEAN	
6.5	METER BOX WITHSTANDS 0.5 TESLA MAGNETIC INFLUENCE TEST	BOOLEAN	
0.5	(YES / NO)	DOOLEAN	
6.6	METER BOX CONFIRMS TO IP – 51 (YES / NO)	BOOLEAN	
6.7	LIFE EXPECTED IS 5.5 YEARS (YES / NO)	BOOLEAN	
6.8	IN-HOUSE TESTING FACILITY IS AVAILABLE. (YES /NO)	BOOLEAN	
	WHETHER YOU AGREE TO SUPPLY METER BOXES AS PER		
6.9	ANNEXURE – D, i.e. TECHNICAL SPECIFICATIONS OF THE TENDER	BOOLEAN	
	(YES / NO)		
6.10	WHETHER TYPE TEST REPORTS ALONGWITH THE COPY OF THE	DOOLEAN	
6.10	SAME IN TWO CDs ARE SUBMITTED (YES / NO)	BOOLEAN	
6.11	WHETHER 10 NOS. OF TENDER SAMPLE METER BOXES ARE	POOLEAN	
0.11	SUBMITTED (YES / NO)	BOOLEAN	
6.12	WHETHER THE FIRM IS SUBSIDIARY (YES / NO)	BOOLEAN	
	ADDITIONAL INFORMATION REQUIRED IN CASE OF FOREIGN		
6.13	BIDDER / MANUFACTURER	TEXT	
	(A) RATE OF CUSTOMS DUTY		
6.14	(B) OFFER SUBMITTED BY FOREIGN BIDDER / MANUFACURER	TEXT	
6.15	(C) WHETHER THE OFFER SUBMITTED THROUGH AUTHORISED	BOOLEAN	
0.13	ASSIGNEE / NOMINEE (YES / NO)	DOOLEAN	
6.16	IN CASE OFFER SUBMITTED THROUGH AUTHORISED ASSIGNEE /	BOOLEAN	
0.10	NOMINEE, WHETHER ANNEXURE UII SUBMITTED (YES / NO)	DOOLEAN	



#### SCHEDULE - "C"

#### TENDERER'S EXPERIENCE

Tenderer shall furnish here list of similar orders executed /under execution for supplying meters boxes by him to whom a reference may be made by purchaser in case he considers such a reference necessary.

Sr. No.	Name of client	Order No. & date	Qty. ordered	Qty. supplied
		IAME OF FIRM		
		IAME & SIGNATURE OF T DESIGNATION	ENDERER	

DATE \_\_\_\_\_



### ANNEXURE U-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/-

Co, The Executive Director (Stores), Maharashtra State Electricity Distribution Co. Ltd., Prakashgad, Bandra (E), Mumbai – 400 056.	
Dear Sir: Sub:- Undertaking against Tender for procurement of	
Ve, M/s having registered office at are the Parent Company of M, who have participated against your tender No for procurement of	's.
We have carefully read and have thoroughly understood and agree to the terms a conditions of the subject tender.	nd
We hereby undertake that in case of placement of order against the subject tender on obtaining the company, M/s in the event of we accept all the responsibilities at abilities for supply of quality meters as per specification of the tender and execution the contract. We further hereby undertake that we shall be responsible for any liabilities are understant 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 purchast 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 arriation 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)."	nd of ity he se or
Yours faithfully,	
(Authorised Signatory) FOR	