MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.
CIN No. U40109MH2005SGC153646

From,
Executive Engineer, MSETCL EHV O&M Division, Sangli.
Office building, Miraj,Tal- Miraj Dist. Sangli- 416415
Contact no. - 0233-2305816 (O)0233- 2304872 (P) 0233-2304873 (F)
E-mail ID- ee3120@mahatransco.in
Website – www.mahatransco.in

Ref. EE/EHV O&M/DN/SGL/T No: 000111 **/2025-26** **Dtd.** 05 JAN 2026

Budgetary offer
(Through MSETCL webpage)
TO WHOM SO EVER IT MAY CONCERN

Dear Sir,

The budgetary offers through email/By Hand/By Post are invited for - Providing & fixing of Micro-processor based 0.25 Clas, Touch Screen / Push Button enabled, 3 Ph, 4 Wire MFM Meters at various substations under EHV O&M Division, Sangli as per Schedule A. You are requested to quote your lowest rates for tentative quantities as per Schedule A attached herewith.

SCHEDULE 'A

Sr No.	Description	Unit	Qty	Ex Work Rate
1	Providing & fixing of Micro-processor based 0.25 Clas, Touch Screen / Push Button enabled, 3 Ph, 4 Wire MFM Meters	EA	1	

Note-The above rates are Exclusive of all taxes and charges.

Specification of Microprocessor Based Multifunction Energy Meters:-

Technical Specifications for Microprocessor Based Multifunction Energy Meters:

Parameters		Description
VAF	PT Secondary	Onsite programmable 100...500V L-L (57.7... 300V L-N)
	PT Primary	100V... 765kV LL (Programmable on site)
	Measuring voltage range	20%... 120% of rated value
	Voltage Overload Withstand	2 X rated value for Isec, repeated 10 times at 10 second intervals.
	Impulse withstand capacity	6 KV
	Voltage Input VA Burden	<0.15 VA approx.. per phase
	CT Secondary (Onsite Programmable)	1A to 5A in step of 1
	CT Primary (Onsite Programmable)	1...10000A
	Measuring current range	5mA...6A
	Max continuous input current	200% of Basic current

	Current Overload Withstand	20x Imax for 1 sec, 10x10Imax for 3 sec, 7ximax for 10 sec
	Current Input VA Burden	1A-0.05VA per phase. 5A-0.25 VA per phase
	Frequency	50/60 Hz ± 5%
	Sampling frequency (50 Hz)	4 kHz/phase
	Overvoltage category	CAT II
	Energy Roll over Count	Configurable display units (kilo /Mega/Giga) for Energy & Power
Communication	RS485 MODBUS Communication	RS485 Port with Modbus communication
Auxiliary Supply	Power Supply Range	80-300 VAC/DC or 24-60VDC
	VA Burden	<6.5 VA approx.
	Frequency	50/60Hz with ±5%
Accuracy	Voltage	0.1%
	Current	0.1%
	Frequency	0.1%
	Power (Active)	0.2%
	Power (Re-active)	0.2%
	Power (Apparent)	0.2%
	Energy (Active)	0.2%
	Energy (Re-active)	0.2%
	Energy (Apparent)	0.2%

Environmental	Temperature range	-20°C to +60°C (operating) -25°C to +80°C (Storage)
	Relative humidity	0... 95%RH (non condensing)
	Degree of pollution	2
Display	Display Type	Large four line seven segment seven digit display with Green backlight (9.711 x 5W mm) LCD size :65x60mm
	Parameter Digit Resolution	3 to 4
	No. of simultaneous display parameters	3 to 4
Mechanical Properties	Weight (g)	500 gms. approx.
	Device dimensions in mm (H x W x D)	96 x 96 x 68 mm (w/o module) 96x96x110mm (with optional module)
	Protection class	Front: IP54, Rear: IP20
	Mounting of Instrument	Panel Mounting
	Connecting phase (U/I),Single core, multi-core, fine-stranded Terminal pins, core end sheath	2.5 mm^2
Type Test	The quoted modem should be type tested as per IS 14697 within past 3 years from NABL accredited lab, type test report should be submitted.	
Warranty	66 months from the date of supply or 60 months from the date of commissioning whichever is earlier.	

The Microprocessor Based MFM Meter Should Display Following Parameters:

Parameters
Voltage (Ph-to-Ph&Ph-to-Neutral and Avg.)
Current (All phases)
Frequency
Power (Active)
Power (Re-active)
Power (Apparent)
PF (Power Factor)

Energy (Active)-Import & Export
Energy (Re-active)
Energy (Apparent) - Import & Export
On site User Selectable 3PH 3W/4W
On site CT Primary Programmable
On Site CT Secondary Programmable (1A/5A)
On Site PT Primary Programmable
On Site PT Secondary Programmable
Onsite selection of Auto scroll/Fixed Screen
Password Protection
Phase Angle (R-Y. Y-B, B-R)
True RMS measurement
THD Measurement
Power ON/OFF Hour
Load ON/OFF Hour
Number of Interruptions
Cumulative MD
THD voltage
THD Current
THD Power
On site Configurable LED for Import/Export
Max. Demand Active Power Import & Export
Max. Demand Apparent Power Import & Export
Communication MODBUS RS 485

The Microprocessor Based MFM Meter should meet following standards: -

EMC	IEC 61326, IS14697
Immunity	IEC 61000-4-3 10V/m min - Level 3 industrial Low level. IS14697
Safety	IEC 61010-1-2001. Permanently connected use
IP for water & Dust	IEC60529
Installation Category	III
High Voltage Test	4 kV AC, 50Hz for 1 minute between all electrical circuits
Test and Procedure	IS 14697
Pollution degree	2
Type Test	MFM meter should be type tested from NABL accredited lab as per IS14697 within past 2 years. Type test report should be submitted along with technical bid. MSETCL may withdraw 01 nos, of meter out of supplied lot of meters and the same may be tested at MSEDCL NABL accredited lab at its own cost. In case of failure the supplied lot will stand rejected and the results will be bidding on the bidder

Additional & Essential Features requirements.

a. It should have expansion capability via add on hot pluggable Ethernet module for communication over TCP/IP
b. It should have expansion capability via add on hot pluggable module for pulse input/output, andanalogue output.
c. Calibration LED for accuracy testing on site.
d. Calculated Load survey :40 days for 6 parameters @30 minutes integration period
e. Maximum Demand support with Demand Integration period of 15/30/60 minutes
f. Password protection for setup mode
g. Configurable display units (Kilo/Mega/Giga) for Energy & Power
h. Wide-range auxiliary power supply (80-300 AC/DC) suitable for high-voltage or low voltage istallation

i. Midnight snapshot (values) for selected energy registers
j. Average THD measurement for voltage, current and power, up to 31st harmonic
k. Scroll-lock and Favorite Page, display customization
l. **Meter should be type tested as per IS14697 from NABL accredited lab within past 3 years.Type test report should be submitted along with technical bid.**
m. **Bidder should also attach Product catalogue for the quoted model.**

WARRANTY: -

Meters should be warranted for 66 months from the date of supply or 60 months from the date of commissioning whichever is earlier.

Note:-

1) Please note that said budgetary offer is only for estimate purpose & not considered for any bidding & no work order will be issued based on this Enquiry.

2) All interested bidders are requested to submit their best reasonable budgetary offer for above works on **Email ID: ee3120@mahatransco.in**/ By Hand/By Post upto 18:00 Hrs on Dtd.15.01.2026

Thanking you,

Yours' faithfully

Executive Engineer
EHV O&M Division, Sangli