	PRE-QUALIFICATION REQUIREMENTS FOR ELECTRICAL LAB (METERING & TESTING) EQUIPMENT	DOC. NO. PE-PQ-999-556-E003
		REVISION NO. 0 DATE 02.06.2017
		SHEET NO. 1 OF 1

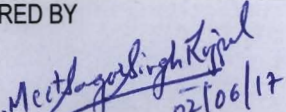
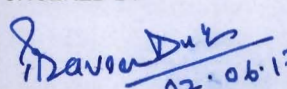
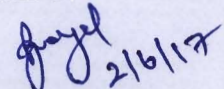
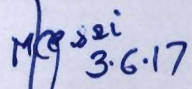
ITEMS : Electrical Lab Equipment for Metering & Testing

SCOPE: Supply : YES; Erection & Commissioning : NO;

1	Vendor should have supplied Electrical Lab (Metering & Testing) equipment to process plant/ refinery/ power plant/ nuclear plant / testing Lab.
2	Vendor should be in business of supplying electrical lab (Metering & Testing) equipment for at least last two (2) years from the date of application for registration or date of techno commercial bid opening (as applicable).
3	Minimum two nos. purchase orders for electrical lab (Metering & Testing) equipment shall be submitted which should not be more than 5 years old from the date of application for registration or date of techno-commercial bid opening (as applicable) for establishing continuity in business.

NOTES-

1. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
2. Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
3. Any other project specific pre-qualifying requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
4. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
5. After satisfactory fulfilment of all the above criteria/ pre-qualifying requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.
6. Refer Annexure-II for list of Electrical Lab (Metering & Testing) Equipment. This list shall be referred for cases of vendor registration.

PREPARED BY  NAME: MEET SAGAR SINGH RAJPAL DESIGNATION: SR. ENGINEER	CHECKED BY  NAME: PRAVEEN DUTTA DESIGNATION: DGM	REVIEWED BY  NAME: RAJNISH GOYAL DESIGNATION: AGM	APPROVED BY  NAME: MEENA KESRI DESIGNATION: GM [ELECT.]
--	--	--	---

365913/2021/PS-PEM-EL

ANNEXURE-II - ELECTRICAL LAB (METERING & TESTING) EQUIPMENT

S. No.	Item Name
1	ANALOG MULTIMETER
2	DIGITAL MULTIMETER
3	PRECISION GRADE DIGITAL MULTIMETER
4	PRECISION GRADE ANALOG MULTIMETER
5	MULTIMETER
6	PLATINUM RTD DIGITAL TEMP. INDICATOR
7	PORTABLE LIGHT INTENSITY (LUX METER)
8	PORTABLE MOISTURE METER
9	PORTABLE CAPACITANCE METER
10	PORTABLE RECORDING METERS
11	DIGITAL PHASE ANGLE METER (pf METER)
12	TONG TESTER
13	AC TONG TESTER
14	DC TONG TESTER
15	DIGITAL TONG TESTER
16	ANALOG TONG TESTER
17	VACUUM MEASUREMENT METER
18	VIBRATION / SOUND LEVEL METER
19	SOUND LEVEL METER
20	VIBRATION MEASURING EQUIPMENT PORTABLE
21	VOLTMETER (PORTABLE) AC MOVING IRON
22	VOLTMETER (PORTABLE) DC MOVING COIL
23	AC MILLIVOLTMETER
24	DC MILLI VOLTMETER
25	DIGITAL VOLTMETER
26	WATTMETER
27	MOVING IRON AMMETERS (0-5A RANGE)
28	MOVING IRON AMMETERS (0-100A RANGE)
29	AC MILLI AMMETER
30	AC MOVING IRON AMMETER
31	AMMETER (PORTABLE)
32	CLIP ON AMMETER (AC)
33	CLIP ON AMMETER (DC)
34	DC MOVING COIL AMMETER PORTABLE
35	DC MILLI AMMETER
36	DC MOVING COIL MICRO AMMETER
37	DC MOVING COIL MILLI AMMETER
38	DIGITAL MICRO AMMETER
39	Clip on Ammeter AC/DC
40	DC CLAMP ON AMMETER
41	AC CLAMP ON METER
42	DC MILLI AMMETER

Manoj Singh Raj
02/06/17

Ramesh Dub
02/06/17

Arjun 2/6/17

ANNEXURE-II - ELECTRICAL LAB (METERING & TESTING) EQUIPMENT

43	DEW POINT METER
44	DIGITAL FREQUENCY METER
45	DIGITAL LOW RESISTANCE METER
46	DIGITAL MICRO-OHM METER
47	MEGA OHM METER
48	MILLI OHM METER
49	PORT. DIGITAL DC RESISTANCE METER
50	DIGITAL TACHOMETER
51	DIGITAL TIME COUNTER
52	MERCURY IN GLASS THERMOMETER
53	PORTABLE CABLE CORE IDENTIFICATION KIT
54	EARTH RESISTANCE TESTER
55	CLAMP ON EARTH RESISTANCE TESTER
56	PORTABLE HIGH VOLTAGE/LIVE LINE DETECTOR
57	PORTABLE PHASE SEQ/CONTINUITY INDICATORS
58	PHASE SEQUENCE INDICATOR
59	RELAY REPAIR TOOL KIT
60	PANEL CUTTING MACHINE
61	SET OF SCREW DRIVERS & NUT DRIVERS
62	MAINTENANCE TOOLS FOR LT MCC
63	MAINTENANCE TOOLS FOR HT MCC
64	HYDRAULIC CRIMPING TOOLS WITH DIES
65	RHEOSTAT
66	RHEOSTATS- 2A /1000Ω
67	RHEOSTATS- 8A /200Ω
68	RHEOSTATS- 5A /100Ω
69	RHEOSTATS- 12A/18Ω
70	BATTERY OPERATED INSULATION TESTER
71	500 V INSULATION TESTER
72	1000 V INSULATION TESTER
73	2500 V INSULATION TESTER
74	5000 V INSULATION TESTER
75	10000 V INSULATION TESTER
76	POWER OPERATED MEGGER 5KV
77	ACIDITY TEST SET FOR TRANSFORMER OIL
78	D. C. SHUNTS
79	DIGITAL INSULATION RESISTANCE TESTER
80	TORQUE WRENCHES
81	TORQUE WRENCH OF VARIOUS SIZES
82	HAND OPERATED MEGGER (0-1000 VOLTS)
83	HAND OPERATED MEGGER 500 VOLTS
84	5 KV MOTORISED MEGGER
85	HAND DRIVEN EARTH RESISTANCE MEGGER
86	MOTOR BEARING PULLER
87	MOTOR GREASING DEVICE
88	TEST LAMP
89	GAUGE

Mr. S. S. Singh Rajul
02/06/17

Dr. D. D. Singh
02/06/17

02/06/17

BHEL PEM –ELECTRICAL
PRE-QUALIFYING REQUIREMENTS FOR
ELECTRICAL LAB EQUIPMENT (METERING & TESTING)
ANNEXURE -1
PROJECT SPECIFIC CRITERIA AGAINST ENQUIRY

PROJECT: 4X270 MW BHADRADRI TPS

-NIL-


Shweta Koba
30/05/19
[DE]

Hme
30/5/19
[CO]

J. Datta Das
31/5/19
[SH]

Lo
31/5/19.
[DH]

364851/2021/PS-PEM-EL

	PRE-QUALIFICATION REQUIREMENTS FOR ELECTRICAL LAB (CALIBRATION & DIAGNOSTICS) EQUIPMENT	DOC. NO. PE-PQ-999-556-E002
		REVISION NO. 0 DATE 02.06.2017
		SHEET NO. 1 OF 1

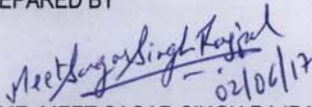
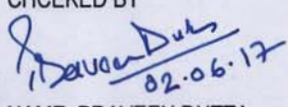
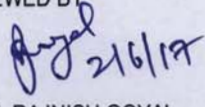
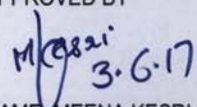
ITEMS : Electrical Lab Equipment For Calibration and Diagnostics

SCOPE: Supply : YES; Erection & Commissioning : NO;

1	Vendor should have supplied Electrical Lab (Calibration and Diagnostics) equipment to process plant/ refinery/ power plant/ nuclear plant / testing Lab.
2	Vendor should be in business of supplying electrical lab (Calibration and Diagnostics) equipment for at least last two (2) years from the date of application for registration or date of techno commercial bid opening (as applicable).
3	Minimum two nos. purchase orders for electrical lab (Calibration and Diagnostics) equipment shall be submitted which should not be more than 5 years old from the date of application for registration or date of techno-commercial bid opening (as applicable) for establishing continuity in business.

NOTES-

1. Consideration of offer shall be subject to customer's approval of bidders, if applicable.
2. Bidder to submit all supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
3. Any other project specific pre-qualifying requirement shall be as per Annexure-I and bidder shall submit relevant supporting documents.
4. Notwithstanding anything stated above, BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in the overall interest of BHEL.
5. After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all the other terms of the tender.
6. Refer Annexure-II for list of Electrical Lab (Calibration and Diagnostics) Equipment. This list shall be referred for cases of vendor registration.

PREPARED BY  NAME: MEET SAGAR SINGH RAJPAL DESIGNATION: SR. ENGINEER	CHCEKED BY  NAME: PRAVEEN DUTTA DESIGNATION: DGM	REVIEWED BY  NAME: RAJNISH GOYAL DESIGNATION: AGM	APPROVED BY  NAME: MEENA KESRI DESIGNATION: GM [ELECT.]
---	---	---	--

364851/2021/PS-PEM-EL

ANNEXURE-II - ELECTRICAL LAB (CALIBRATION & DIAGNOSTICS) EQUIPMENT

S. No.	Item Name
1	PORTABLE 3 PHASE SUBSTANDARD WATTMETER
2	PORTABLE CALLIBTAROR FOR RTDS
3	PORTABLE MULLICURRENT CALIBRATOR
4	TABLE MOUNTED MA CALIBRATOR
5	PORTABLE MILLIVOLT CALIBRATOR
6	MULTIFUNCTION INSTRUMENT CALIBRATOR
7	REFERENCE METER
8	PORTABLE REF MTR & PHANTOM LOAD TEST SET
9	DIGITAL POWER & ENERGY METER CALIBRATOR
10	DC POWER SUPPLY EQUIPMENT
11	AC VOLTAGE/CURRENT SOURCE
12	DIGITAL VARIABLE FREQ SOURCE (OSC)
13	STANDARD CURRENT TRANSFORMER
14	STANDARD CURRENT TRANSFORMER (50-1500A)
15	STANDARD CURRENT TRANSFORMER (10-100A)
16	AUTO-TRANSFORMER (VARIAC) SINGLE PHASE
17	1 PH AUTO TRANSFORMER (VARIAC) 10AMP
18	1 PH AUTO TRANSFORMER (VARIAC) 30AMP
19	AUTO-TRANSFORMER (VARIAC) THREE PHASE
20	3 PH AUTOTRANSFORMER (VARIAC) 10AMP
21	3 PH AUTOTRANSFORMER (VARIAC) 30AMP
22	STANDARD POTENTIAL TRANSFORMER
23	SUBSTANDARD FREQUENCY METER
24	PRECISION DIGITAL FREQUENCY METER
25	TRUE RMS DIGITAL CLAMP METER
26	UNIVERSAL BRIDGE (LCRQ)
27	KELVIN DOUBLE BRIDGE
28	LCR METER BRIDGE
29	ANTISTATIC LAB TEST BENCH
30	COMPUTERIZED RELAY TEST BENCH
31	DECADE RESISTANCE BOX
32	THREE PHASE SHIFTER
33	EARTH FAULT LOCATOR
34	DUAL TRACE PORTABLE STORAGE OSCILLOSCOPE
35	CATHODE RAY OSCILLOSCOPE (PORTABLE)
36	DISTURBANCE RECORDER
37	PARTIAL DISCHARGE MEAS KIT
38	PHANTOM LOAD TEST SET
39	DUCTOR OHM METER
40	MICRO OHM METER
41	PORTABLE CIRCUIT BREAKER MOTION ANALYSER
42	CKT BREAKER CAPACITANCE MEAS. METER
43	CONTACT RESISTANCE MEAS KIT
44	PORTABLE HAND HELD INFRARED TEMP SCANNER
45	THERMAL IMAGING CAMERA

Meeta Singh Rajal
02/06/17

Dr. Anand Dubey
02/06/17

02/06/17

364851/2021/PS-PEM-EL

ANNEXURE-II - ELECTRICAL LAB (CALIBRATION & DIAGNOSTICS) EQUIPMENT

46	PORTABLE KARL-FISCHER TEST SET
47	RELAY TEST SET
48	BUCHHOLZ RELAY TESTING KIT
49	POWER ANALYSER METER
50	HARMONIC ANALYSER
51	FREQUENCY RESPONSE ANALYSER
52	VIBRATION METER CUM ANALYSER
53	PORTABLE SECONDARY INJECTION TEST KIT
54	SECONDARY INJECTION KIT (0-100A)
55	SECONDARY INJECTION KIT (0-30A)
56	PORTABLE SING PH PRIMARY INJ TEST SET
57	PRIMARY INJECTION KIT
58	PORT. PRIM. & SEC. CURR. INJECTION TEST
59	INSTRUMENT TRANSFORMER TEST SET
60	CT ANALYSER TEST SET (PORTABLE)
61	PRECISION MANUAL SCANNING RADIO METER
62	SF6 / HYDROGEN / HALOGEN GAS DETECTOR
63	SF6 GAS LEAK DETECTOR
64	HYDROGEN GAS LEAK DETECTOR
65	FUEL GAS LEAK DETECTORS
66	TRF BUCHHOLZ GAS ANALYSER
67	DISSOLVED GAS ANALYSER FOR TRF OIL
68	COMPUTERIZED COMBUSTIBLE GAS ANALYSER
69	GAS CHROMATOGRAPH AND DATA STATION
70	UHV TYPE OIL PURIFYING EQUIPMENT
71	AUTOMATIC OIL TEST SET
72	OIL RESISTIVITY TEST KIT
73	TRANSFORMER OIL BREAKDOWN TEST SET
74	SIGNAL GENERATOR
75	FUNCTION GENERATOR
76	SP EQPT. FOR TESTING LIGHTNING ARRESTORS
77	TAN DELTA CAPACITANCE MEAS TEST SET
78	TRF TURNS RATIO TESTER
79	TURN RATIO MTR WITH VEC GP TESTING FAC
80	WDG RESISTANCE MTR FOR TRF, GEN & MOTORS
81	TELESCOPIC EARTHING ROD
82	HV DISCH ROD & PORT. EARTHING EQUIPM.
83	HV DISCHARGE RODS UP TO 39.5 KV
84	HV DISCHARGE RODS FROM 132 KV TO 420 KV
85	HOT STICK (UPTO 11 KV)
86	HOT STICK (UPTO 21 KV)
87	HOT STICK (UPTO 220 KV)
88	HOT STICK (UPTO 400 KV)
89	HIGH VOLTAGE DETECTOR
90	LIVE LINE DETECTOR 33KV
91	LIVE LINE DETECTOR 400KV
92	BATTERY CAPACITY TEST KIT

Heet Singh Kojal
02/06/17

S. Datta Das
02/06/17

Pragya
2/6/17

364851/2021/PS-PEM-EL

ANNEXURE-II - ELECTRICAL LAB (CALIBRATION & DIAGNOSTICS) EQUIPMENT

93	BATTERY IMPEDANCE TEST EQUIPMENT
94	BATTERY DISCHARGE UNIT
95	CABLE FAULT LOCATION SET
96	FIBER OPTIC CABLE TESTER
97	HIGH VOLTAGE TESTING SET AC
98	HIGH VOLTAGE TESTING SET DC
99	HIGH VOLTAGE TESTING KIT 1KVA (DC)
100	HIGH VOLTAGE TESTING KIT 5 KVA (DC)
101	HIGH VOLTAGE TESTING KIT 6 KVA (DC)
102	HIGH VOLTAGE TESTING KIT 10KVA (AC)
103	150kVA (AC) High Voltage testing kit
104	HIGH VOLTAGE TESTING KIT 25KVA (AC)
105	HIGH VOLTAGE TESTING KIT 40KVA (AC)
106	HIGH VOLTAGE TESTING KIT 325KVA (AC)
107	HIGH VOLTAGE TESTING KIT 3.5 KVA (DC)
108	HIGH VOLTAGE TESTING KIT 250 KVA (AC)
109	INTERFACIAL TENSION METER
110	MOTOR ALIGNMENT TESTER
111	MOTOR CHECKER
112	MOTOR CURRENT SIGNATURE ANALYSER
113	MOTOR SURGE TESTER
114	ELECTRICAL TEST BED(LT DRIVES)
115	ELECTRICAL TEST BED(HT DRIVES)
116	OVEN FOR HT MOTORS
117	OVEN FOR LT MOTORS
118	SELECTIVE LEVEL OSCILLATOR
119	PORTABLE SLCT LVL MTR, TRACKING LVL GEN
120	AUTOMATIC PENSKEY MARTIN FLASH POINT APPR
121	NON CONTACT RADIATION PYROMETER
122	DIGITAL STROBOSCOPE

Neelgopal Singh Rytal
02/06/17

Ramesh Babu
02/06/17

Pragat 2/6/17