



TENDER NO. 06/2017-NIE

**MISC. COMPONENTS, CASING, SOCKETS, CAPACITORS, RESISTORS, DIAODES AND
SOLDERING STATIONS ETC. FOR DEVELOPMENT OF LINE CONDITIONER FOR BMR LAB**

S. #	Description	Make	Part No.	Qty	Unit Price	Total price
1.	Variable Resistor	RS OR Equivalent	S20K275V	50 Nos.		
2.	Capacitor	RS OR Equivalent	220NF	50 Nos.		
3.	Resistor	RS OR Equivalent	150 ohm/5V	50 Nos.		
4.	Current Transformer	FICO Electric OR Equivalent	TCT008-1000	50 Nos.		
5.	Fuse	RS OR Equivalent	2A	50 Nos.		
6.	Voltage Transformer	FICO Electric OR Equivalent		50 Nos.		
7.	Inductor	RS OR Equivalent	1mH	50 Nos.		
8.	Bridge Rectifier	Mitsubishi OR Equivalent	BREC 1 , 6A 1000V	50 Nos.		
9.	Power MOSFET	Mitsubishi OR Equivalent	IRFP460	50 Nos.		
10.	Zener diodes	Mitsubishi OR Equivalent	18V	50 Nos.		
11.	Optocoupler	Mitsubishi OR Equivalent	TLP521	50 Nos.		
12.	Optocoupler	Mitsubishi OR Equivalent	TLP250	50 Nos.		
13.	Relay	RS OR Equivalent	10A	50 Nos.		
14.	Capacitor	RS OR Equivalent	220uF/ 450V DC	100 Nos.		
15.	Capacitor	RS OR Equivalent	3.9nF	50 Nos.		
16.	Capacitor	RS OR Equivalent	7uF/ 25V TANT	50 Nos.		
17.	Capacitor	RS OR Equivalent	100nF	100 Nos.		
18.	Capacitor	RS OR Equivalent	1uF /400V	150 Nos.		
19.	Capacitor	RS OR Equivalent	470nF	50 Nos.		
20.	Capacitor	RS OR Equivalent	100uF/ 35V	50 Nos.		
21.	Capacitor	RS OR Equivalent	47nF	50 Nos.		

22.	Capacitor	RS OR Equivalent	470pF	50 Nos.		
23.	Capacitor	RS OR Equivalent	220pF/ 63V	50 Nos.		
24.	Capacitor	RS OR Equivalent	2n2	50 Nos.		
25.	Capacitor	RS OR Equivalent	33nF	50 Nos.		
26.	Capacitor	RS OR Equivalent	2.2uF/ 16V	50 Nos.		
27.	Capacitor	RS OR Equivalent	100uF/ 35V	50 Nos.		
28.	Capacitor	RS OR Equivalent	100uF/ 16V	50 Nos.		
29.	Resistor	RS OR Equivalent	220 Ω	50 Nos.		
30.	Resistor	RS OR Equivalent	47 Ω / 2W	50 Nos.		
31.	Resistor	RS OR Equivalent	470K Ω / 1W	100 Nos.		
32.	Resistor	RS OR Equivalent	1.5M Ω	50 Nos.		
33.	Resistor	RS OR Equivalent	220K Ω	50 Nos.		
34.	Resistor	RS OR Equivalent	10K Ω	150 Nos.		
35.	Resistor	RS OR Equivalent	8.2K Ω	50 Nos.		
36.	Resistor	RS OR Equivalent	27K Ω	100 Nos.		
37.	Resistor	RS OR Equivalent	820K Ω / 1V	100 Nos.		
38.	Resistor	RS OR Equivalent	18K Ω	50 Nos.		
39.	Resistor	RS OR Equivalent	100K Ω	50 Nos.		
40.	Resistor	RS OR Equivalent	18K Ω	100 Nos.		
41.	Resistor	RS OR Equivalent	6.8K Ω	100 Nos.		
42.	Resistor	RS OR Equivalent	15K Ω	50 Nos.		
43.	Resistor	RS OR Equivalent	4.7K Ω	50 Nos.		
44.	Resistor	RS OR Equivalent	220K Ω	100 Nos.		
45.	Resistor	RS OR Equivalent	180K Ω	50 Nos.		
46.	Resistor	RS OR Equivalent	8.2K Ω	50 Nos.		
47.	Resistor	RS OR Equivalent	1.5K Ω	100 Nos.		
48.	Resistor	RS OR Equivalent	100R Ω	50 Nos.		
49.	Resistor	RS OR Equivalent	1K Ω	50 Nos.		

50.	Resistor	RS OR Equivalent	6.8K Ω	50 Nos.		
51.	Resistor	RS OR Equivalent	470K Ω	100 Nos.		
52.	Resistor	RS OR Equivalent	560K Ω	50 Nos.		
53.	Resistor	RS OR Equivalent	4.7M Ω	50 Nos.		
54.	Resistor	RS OR Equivalent	33K Ω	50 Nos.		
55.	Resistor	RS OR Equivalent	150K Ω	50 Nos.		
56.	Resistor	RS OR Equivalent	330 Ω	50 Nos.		
57.	Resistor	RS OR Equivalent	22K Ω	50 Nos.		
58.	Resistor	RS OR Equivalent	100K Ω	50 Nos.		
59.	Resistor	RS OR Equivalent	18K Ω	50 Nos.		
60.	Resistor	RS OR Equivalent	22K Ω	50 Nos.		
61.	Resistor	RS OR Equivalent	1K Ω	50 Nos.		
62.	Resistor	RS OR Equivalent	3.3K Ω	50 Nos.		
63.	Resistor	RS OR Equivalent	39 Ω	50 Nos.		
64.	Resistor	RS OR Equivalent	680 Ω	50 Nos.		
65.	Resistor	RS OR Equivalent	56 K Ω / 3V	50 Nos.		
66.	Bilateral Switch	Mitsubishi OR Equivalent	IC4016	50 Nos.		
67.	Differential Op-Amp	Mitsubishi OR Equivalent	LM324	100 Nos.		
68.	Bilateral Switch	Mitsubishi OR Equivalent	IC4016	50 Nos.		
69.	Differential Op-Amp	Mitsubishi OR Equivalent	LM358	100 Nos.		
70.	Diodes	RS OR Equivalent	DSEI20-12A	100 Nos.		
71.	Diodes	RS OR Equivalent	1N4001	50 Nos.		
72.	Diodes	RS OR Equivalent	1N4148	150 Nos.		
73.	Diodes	RS OR Equivalent	1N5819	50 Nos.		
74.	Diodes	RS OR Equivalent	1N4007	100 Nos.		
75.	Diodes	RS OR Equivalent	1N4148	100 Nos.		
76.	Casing	Mitsubishi OR Equivalent	Casing for UPS, Casing for Line Conditioner	60 Nos.		

77.	Transformer	Mitsubishi OR Equivalent	1 KVA	50 Nos.		
78.	Transformer	Mitsubishi OR Equivalent	3 KVA	10 Nos.		
79.	PCB	Mitsubishi OR Equivalent	PCB for line conditioner, PCB for PFC, online UPS with component stuffing	60 Nos.		
80.	PCB connectors	Mitsubishi OR Equivalent	Connectors for Line conditioner and online UPS	100 Nos.		
81.	Fuse	Mitsubishi OR Equivalent	4A/250V	100 Nos.		
82.	Diodes	RS OR Equivalent	W04M	100 Nos.		
83.	Relays	Fair Child	DC relay 12V, 27A	200 Nos.		
84.	Resistor	RS OR Equivalent	470 ohm	50 Nos.		
85.	Capacitor	RS OR Equivalent	1uF/ 400V	100 Nos.		
86.	Inductor	RS OR Equivalent	1mH	50 Nos.		
87.	Zener Diode	RS OR Equivalent	1N5248B	50 Nos.		
88.	IC	Mitsubishi OR Equivalent	L6561	50 Nos.		
89.	MOSFET N	Mitsubishi OR Equivalent	IRFP460	50 Nos.		
90.	Resistor	RS OR Equivalent	180K	100 Nos.		
91.	Resistor	RS OR Equivalent	680K	100 Nos.		
92.	Resistor	RS OR Equivalent	10K	50 Nos.		
93.	Resistor	RS OR Equivalent	100 ohm	50 Nos.		
94.	Resistor	RS OR Equivalent	68K	50 Nos.		
95.	Resistor	RS OR Equivalent	33 ohm	50 Nos.		
96.	Resistor	RS OR Equivalent	12K	50 Nos.		
97.	Resistor	RS OR Equivalent	91K	50 Nos.		
98.	Resistor	RS OR Equivalent	220 ohm	50 Nos.		
99.	Resistor	RS OR Equivalent	0.2 ohm	50 Nos.		
100.	Resistor	RS OR Equivalent	680K	100 Nos.		

101.	Resistor	RS OR Equivalent	320K	50 Nos.		
102.	Resistor	RS OR Equivalent	12.7K	50 Nos.		
103.	Capacitor	RS OR Equivalent	10nF	50 Nos.		
104.	Capacitor	RS OR Equivalent	22uF/25V	50 Nos.		
105.	Capacitor	RS OR Equivalent	100nF	50 Nos.		
106.	Capacitor	RS OR Equivalent	12nF	50 Nos.		
107.	Capacitor	RS OR Equivalent	470nF	50 Nos.		
108.	Capacitor	RS OR Equivalent	10uF/35V	50 Nos.		
109.	Capacitor	RS OR Equivalent	22uF/450V	100 Nos.		
110.	Fuses	RS OR Equivalent	5a,10a,15a	250 Nos.		
111.	Simple Connectors	Allied pvt ltd OR Equivalent	Ipc	250 Nos.		
112.	PCB Connectors	Alco/avx OR Equivalent	Pcb mounted connectors	250 Nos.		
113.	Fuse Holders	Allied pvt ltd OR Equivalent	Pcb mounted holders	250 Nos.		
114.	LED Holders	TE Connectivity OR Equivalent	Panel mount led holders	500 Nos.		
115.	Wires	Pakistan cables OR Equivalent	1.5mm, 2.5mm	1000 Nos.		
116.	Switches	Arcoelectric OR Equivalent	Rocker switch	250 Nos.		
117.	LCD ribbon Cable	KEL Corporation OR Equivalent	Ribbon cable	50 Nos.		
118.	Aluminum Sheet	Allied pvt ltd OR Equivalent	For the box	15 Meters		
119.	Soldering wires	RS PRO OR Equivalent	70/30	15 Nos.		
120.	Soldering Stations	PROS KIT OR Equivalent	60watt station	02 Nos.		
121.	LCD	RS OR Equivalent	20 x 4	75 Nos.		
122.	Heat Sinks	Allied pvt ltd OR Equivalent	3,4,6 inch heat sinks for mosfets and diodes	75 Nos.		
123.	Fan	Allied pvt ltd OR Equivalent	12v dc fan	60 Nos.		
124.	Power Supply	OOTDTY OR Equivalent	12v dc	60 Nos.		
125.	Voltage Regulators	RS OR Equivalent	7812	500 Nos.		
126.	Voltage Regulators	RS OR Equivalent	7805	500 Nos.		

127.	Microcontroller	RS OR Equivalent	Pic18f4550	25 Nos.		
128.	Shunt Resistors	RS OR Equivalent	1,3,5,10,33,ohm	500 Nos.		
129.	Panel Mount Sockets	RS PRO OR Equivalent	Inlet power socket	250 Nos.		
130.	Prosket Tool Kit	PROS KIT OR Equivalent	Tools	01 No.		
131.	Binding Post 60A Red Color	CLEQEE OR Equivalent	4mm Nickel Plated Binding Post	50 Nos.		
132.	Binding Post 60A Black Color	CLEQEE OR Equivalent	4mm Nickel Plated Binding Post	50 Nos.		
133.	Heat Sink TO 220 Size	Cooltex OR Equivalent	150x60x25 white	60 Nos.		
134.	4 pin Barrier Terminal Strip 20A	CNBTR OR Equivalent	00V 15A Dual Row 4 Positions Screw Terminal	25 Nos.		
135.	45 degree centigrade temperature switch	Ksd OR Equivalent	ksd9700	75 Nos.		
136.	Heat Sink	Cooltex OR Equivalent	150x60x25 white	15 Nos.		
137.	Cycle Screw 3x8	ROCKBROS OR Equivalent	Titanium Ti Bolt Screw M5 x 18mm	500 Nos.		
138.	Cycle Screw 5x8	ROCKBROS	Titanium Ti Bolt Screw M5 x 18mm	500 Nos.		
139.	Plane Washer 5mm	Bolt depot OR Equivalent	Plane washer 5mm	500 Nos.		
140.	Spring Washer 5mm	Bolt depot OR Equivalent	Spring washer	500 Nos.		
141.	Power supply	Dazheng OR Equivalent	30V 5A	02 Nos.		
142.	Battery Wire 6mm Red	Pakistan cables OR Equivalent	6mm Red	25 Meters		
143.	Battery Wire 6mm Black	Pakistan cables OR Equivalent	6mm Black	25 Meters		
144.	Shrinkable Sleeves Black 10mm	RS pro OR Equivalent	10mm black	03 Reels		
145.	Shrinkable Sleeves Red 10mm	RS pro OR Equivalent	10mm black	03 Reels		
146.	Battery Thimble Round 6mm Hole	Rs pro OR Equivalent	60mm	375 Nos.		
147.	Battery Wire 8mm Red	Pakistan cables	8mm red	25 Meters		
148.	Battery Wire 8mm Black	Pakistan cables	8mm black	25 Meters		
149.	PCB Spacer 3mm	RS OR Equivalent	3mm spacer	750 Nos.		
150.	PCB Lacquer Acryl coat	RS OR Equivalent	Coating spray	25 Canes		

151.	Connectors	RS OR Equivalent	IPCC8	50 Nos.		
152.	Connectors	RS OR Equivalent	IPCC6	50 Nos.		
153.	Connectors	RS OR Equivalent	IPCC3	50 Nos.		
154.	Capacitor	RS OR Equivalent	1uF/16V	50 Nos.		
155.	Capacitor	RS OR Equivalent	0.1uF/16V	50 Nos.		
156.	Capacitor	RS OR Equivalent	100nF/100V	50 Nos.		
157.	Capacitor	RS OR Equivalent	100pF/100V	50 Nos.		
158.	Capacitor	RS OR Equivalent	0.1uF/100V	50 Nos.		
159.	Capacitor	RS OR Equivalent	22pF/50V	50 Nos.		
160.	Capacitor	RS OR Equivalent	(223) 0.022uF/100V	50 Nos.		
161.	Capacitor	RS OR Equivalent	10n/100V	50 Nos.		
162.	Capacitor	RS OR Equivalent	1nF/100V	50 Nos.		
163.	Capacitor	RS OR Equivalent	10nF/100V	50 Nos.		
164.	Capacitor	RS OR Equivalent	330uF/100V	50 Nos.		
165.	Capacitor	RS OR Equivalent	100uF/16V	50 Nos.		
166.	Capacitor	RS OR Equivalent	10uF/16V	50 Nos.		
167.	Capacitor	RS OR Equivalent	470uF/16V	50 Nos.		
168.	Capacitor	RS OR Equivalent	470uF/400V	50 Nos.		
169.	Capacitor	RS OR Equivalent	1N4148	50 Nos.		
170.	Capacitor	RS OR Equivalent	3.3uF/400V	50 Nos.		
171.	Current Transformer	RS OR Equivalent	5A output	60 Nos.		
172.	Diode	RS OR Equivalent	1N4148	50 Nos.		
173.	Diode LED	RS OR Equivalent	RED	50 Nos.		
174.	Diode LED	RS OR Equivalent	GREEN	50 Nos.		
175.	Diode	RS OR Equivalent	1N4004	50 Nos.		
176.	FM1	Allied Pvt. Ltd. OR Equivalent	+5V	50 Nos.		
177.	Fuse	RS OR Equivalent	10A/220V	50 Nos.		
178.	MOSFET	Mitsubishi OR Equivalent	IRFP450	50 Nos.		

179.	Soldering Flux	RS OR Equivalent	CT125	05 Nos.		
180.	Inductor	RS OR Equivalent	1mH@5A	50 Nos.		
181.	Transistor	Mitsubishi OR Equivalent	2N2222	50 Nos.		
182.	Transistor	Mitsubishi OR Equivalent	2N2907	50 Nos.		
183.	RY1	Any	12V DC	50 Nos.		
184.	Resistor	RS OR Equivalent	270 Ω /0W25	50 Nos.		
185.	Resistor	RS OR Equivalent	12K Ω /0W25	50 Nos.		
186.	Resistor	RS OR Equivalent	2K Ω /0W25	50 Nos.		
187.	Resistor	RS OR Equivalent	4.7K Ω /0W25	50 Nos.		
188.	Resistor	RS OR Equivalent	100 Ω /0W25	50 Nos.		
189.	Resistor	RS OR Equivalent	10 Ω /1W	50 Nos.		
190.	Resistor	RS OR Equivalent	20 Ω /0W25	50 Nos.		
191.	Resistor	RS OR Equivalent	620 Ω /0W25	50 Nos.		
192.	Resistor	RS OR Equivalent	10K Ω /0W25	50 Nos.		
193.	Resistor	RS OR Equivalent	51 Ω /0W25	50 Nos.		
194.	Resistor	RS OR Equivalent	220 Ω /0W25	50 Nos.		
195.	Resistor	RS OR Equivalent	22K Ω /0W25	50 Nos.		
196.	Resistor	RS OR Equivalent	47 Ω /0W25	50 Nos.		
197.	Resistor	RS OR Equivalent	1.2M Ω /0W25	50 Nos.		
198.	Resistor	RS OR Equivalent	1K Ω /0W25	50 Nos.		
199.	Resistor	RS OR Equivalent	2.7K Ω /0W25	50 Nos.		
200.	Resistor	RS OR Equivalent	20K Ω /0W25	50 Nos.		
201.	Resistor	RS OR Equivalent	70 Ω /0W25	50 Nos.		
202.	Resistor	RS OR Equivalent	510 Ω /0W25	50 Nos.		
203.	Resistor	RS OR Equivalent	50 Ω /0W25	50 Nos.		
204.	Resistor	RS OR Equivalent	1.5K Ω /0W25	50 Nos.		
205.	Resistor	RS OR Equivalent	47K Ω /0W25	50 Nos.		
206.	Transmitter/Receiver	Mitsubishi OR Equivalent	IC L232	50 Nos.		

207.	Quad 2-input NAND Schmitt trigger	Mitsubishi OR Equivalent	4049	50 Nos.		
208.	Hex inverting Buffer	Mitsubishi OR Equivalent	4093	50 Nos.		
209.	Optocoupler	Mitsubishi OR Equivalent	TLP250	50 Nos.		
210.	Microcontroller 16f876A	Mitsubishi OR Equivalent	PIC16F76A	60 Nos.		
211.	Quad Op-AMP	Mitsubishi OR Equivalent	LM324	50 Nos.		
212.	Voltage Regulator	Mitsubishi OR Equivalent	LM7805	50 Nos.		
213.	Oscillator	Mitsubishi OR Equivalent	20M Hz	75 Nos.		
214.	Zener Diode	RS OR Equivalent	1N4744(15V/0 W5)	75 Nos.		
215.	Crystal Oscillator	Mitsubishi OR Equivalent	8M Hz	25 Nos.		
216.	Crystal Oscillator	Mitsubishi OR Equivalent	4M Hz	25 Nos.		
217.	Iron Bits	GOAT Company OR Equivalent	3mm/5mm/10 mm	25 Nos.		
218.	EGS 002 Sine Module	Mitsubishi OR Equivalent	EGS 002	25 Nos.		
219.	MOSFET	Mitsubishi OR Equivalent	IRF840	50 Nos.		
220.	PIC kit 3	MIKROELEKTRONIKA OR Equivalent	Kit 3	01 No.		
221.	Soldering paste	RS OR Equivalent		05 Nos.		
222.	Male header 10 pin	Fair Child OR Equivalent	10 pin male header	500 Nos.		
223.	Female header 10 pin	Fair Child OR Equivalent	10 pin female header	500 Nos.		
224.	Easy Pic 7 Development Board	MIKROELEKTRONIKA OR Equivalent	Pic 7	01 No.		
225.	Arduino Mega	SPARK FUN ELECTRONICS OR Equivalent		01 No.		
226.	Raspberry Pie	RS OR Equivalent	Latest Model	01 No.		
227.	GSM module (Arduino compatible)	SIMCOM OR Equivalent		02 Nos.		
228.	LED	RS OR Equivalent	Red	250 Nos.		
229.	LED	RS OR Equivalent	Green	250 Nos.		
230.	LED	RS OR Equivalent	Yellow	250 Nos.		
231.	Diode	Mitsubishi OR Equivalent	IN4148	50 Nos.		
232.	Resistor	RS OR Equivalent	0.2 Ω / 2W	50 Nos.		

233.	Resistor	RS OR Equivalent	0.1 Ω / 2W	50 Nos.		
234.	Resistor	RS OR Equivalent	470 Ω / 5W	50 Nos.		
235.	Resistor	RS OR Equivalent	0.2 Ω / 5W	50 Nos.		
236.	Resistor	RS OR Equivalent	0.1 Ω / 5W	50 Nos.		
237.	Inductor Round Core	Fair Child OR Equivalent	Black	60 Nos.		
238.	Aurduino Ethernet Sheet	SPARK FUN ELECTRONICS OR Equivalent	-	02 Nos.		



TERM & CONDITIONS

**MISC. COMPONENTS, CASING, SOCKETS, CAPACITORS, RESISTORS, DIAODES AND
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TENDER NO. 06/2017-NIE

1. Price to be quoted in Pak Rupees on (FOR) free home delivery basis.
2. The scope of supplies includes supply of equipment items, installation, testing and commissioning of equipment.
3. The bid should be submitted on proper letterhead of the firm **OR** NIE tender documents must be duly signed and stamped by the authorized person of the participated firm.
4. The bid must be supported with necessary catalogue/ brochure indicating make, model detailed specification and country of origin of the offered equipment.
5. The bid should reflect at sight the following costs separately for fair comparison purpose.
 - i. Unit Price of equipment.
 - ii. GST, if applicable.
6. Conditional/ ambiguous bids will not be entertained.
7. Earnest money @ 2% of quoted prices (Refundable) must be accompanied with tender bid in shape of a crossed bank draft/ pay order in favour of the Director General NIE. E/M of the successful bidder will be refunded after satisfactory completion of supply order.
8. The bids of the firm operating from their residential address and P.O. Box number will not be considered.
9. Tender number must be specified on the left corner of the tender envelope.
10. The rates should be valid for at least **“90”** days from the tender opening date.
11. The offered equipment/ items must be brand new of the original manufacturer and covered under normal warranty/guarantee with necessary back-up support.
12. The estimated delivery/ completion period of supplies/ work must be specified in the quotation.
13. In case of late delivery/ completion in supplies/ work, a penalty @ 2% per month of the total order value will be charged from the successful bidder without any notice.

14. The bid found to be lowest evaluated bid shall be accepted on the basis of cost comparison, tender specifications and fulfilling the requirement of the project/ end-user.
15. The earnest money of the rejected firms shall be returned in due course of time.
16. NIE if require may ask the successful bidder to provide 5% Bank Guarantee for satisfactory execution of the supply order.
- 17. No advance payment will be made.**
18. NTN and GST number must be mentioned on the quotation along with copies of supporting documentary evidence, failing which bid will not be considered.
19. Payment will be made on submission of the prescribed bill in duplicate through crossed cheque after satisfactory completion of supply order and our acceptance thereof, which includes installation, testing, commissioning of the equipment and training etc. The bill presented on the letterhead of the firm will not be accepted for payment purpose.
20. Income Tax/ Sales Tax etc. will be deducted from bill as per Govt. Rules.
21. As per Government Policy payment to the firm is subject to the registration of firm name in **Active Tax Payer List of FBR**, otherwise payment will be stopped till the appearance of vendor name in ATL of FBR.
22. Last date for receipt of the tender in the Procurement Section of NIE is **May 22, 2017** up to **11:00 hours**. Tender will be opened on the same day at **11:30 hours** in the presence of those who wish to be present. Tender received late will not be considered in any case.
23. The Director General NIE reserves the right to accept or reject any or all tenders in part or whole, or change the quantity of tendered items as per provision of PPRA Rules.

M. Faisal Paracha
Dy. Director Procurement
NIE, Islamabad
Ph: 051-9265009(Ext: 111)