

<b>PROJECT: TURBO BLOWER STATION (Package-010A)</b>		<b>ANNEXURE-8 TO PY-55127 REV00</b>
<b>CUSTOMER: M/s NMDC LIMITED, 3.0MTPY INTEGRATED STEEL PLANT, NAGARNAR, CHHATTISHGARH</b>		
<b>CONSULTANT: M/s MECON, RANCHI</b>		<b>BHEL ENQUIRY NO.:</b>
<b>PRICE SCHEDULE FOR LT SWITCHGEAR PACKAGE: COMMON NOTES</b>		
<b>BIDDER:</b>		<b>PRICE OFFER NO. &amp; DATE:</b>
<b>SL. NO.</b>	<b>COMMON NOTES:</b>	
1	This document details the price schedule for the enquiry. Bidder shall fill up in this format only. No other format will be entertained. No cognizance will be taken of any changes made by vendor with respect to format issued by BHEL in the description of any item in price format.	
2a	Duly signed & stamped unpriced price schedule format shall be submitted by vendor as a token of their concurrence that the price schedule is submitted in this format. If not submitted in this format or any field is left blank, the offer will be liable for rejection.	
2b	All the blank fields shall be filled irrespective of applicability of any item for this Project. If any item is not in bidder's manufacturing range or not available in market (for bought-outs) then "Not Applicable-NA" shall be mentioned in the field. If any item is left unfilled, it shall be deemed that the price is included in any of the other quoted items / package and hence, price will be considered as zero for evaluation / additions. Also, for such items, unit rates for deletions will be at the discretion of BHEL.	
3	Vendor shall fill up prices of various items and submit to BHEL in separate sealed cover as commercial offer. All prices shall be submitted as ex-works. Applicable taxes and duties shall also be indicated separately.	
4	The format contains TWO sections apart from this page:	
4a	Section-1: Price Schedule for Main Equipments for the LT Switchgear Package	
4b	Section-2: Unit rates for the Switchgear items / Services for components' addition / deletion	
5	Tender evaluation priority / criteria shall be as per the Landed cost to BHEL in the "Price Schedule for Main Equipment for the LT Switchgear". However, in case of any mis-match in values quoted by the bidder, final decision will be at the discretion of BHEL.	
6	Unit rates of components would be used for affecting required additions / deletions of main equipment during order execution. The Unit rates shall include all associated items for functional integration with the main equipment.	
7	Unit rates would be used for effecting required corresponding changes in the percentage for spares (due to additions / deletions of main equipment during order execution).	
8	Components / Items / Spares shall be identical to the main equipment.	
9	Billing & Payments will be as per approved BOM.	
10	All rates shall be valid up till the execution of the order.	
11	BHEL reserves the right to order part quantity or short close if any item / main equipment is not needed during execution.	

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CONSULTANT: M/s MECON, RANCHI			BHEL ENQUIRY NO.:		
<b>SECTION-1</b>					
<b>PRICE SCHEDULE FOR MAIN EQUIPMENT FOR LT SWITCHGEAR PACKAGE</b>					
<b>BIDDER:</b>			<b>PRICE OFFER NO. &amp; DATE:</b>		
SL. NO.	ITEM	QTY.	UNIT PRICE Ex Works (Rs) <u>Refer Note-4</u>	TOTAL PRICE Ex Works (Rs)	REMARKS
<b>A</b>	<b>SWITCHBOARDS</b>				
1	415V TBMCC-1, 2 & 3	3 no.s			
2	415V PDB	1 no.			
3	220V DCDB-1	1 no.			
4	220V DCDB-2	1 no.			
5	240V UPSDB-1	1 no.			
6	240V UPSDB-2	1 no.			
7	Commissioning Spares	1 set			
8	Tools & Tackles	1 set			
9	Welding Receptacles	6 no.s			
10	<b>Lumpsum price for Supervision of Installation, Service, Testing &amp; Commissioning of Intelligent Controllers by the OEM at site</b>	2 visits	NA	NA	<b>Refer Note-3,5 below</b>
(a)	Lumpsum price for travel by OEM of Intelligent Controller to site	2 visits			
(b)	<b>Service charges for engineers:</b> Lumpsum price including Lodging, Boarding etc. for Intelligent Controller OEM for 6 mandays at site per visit	2 visits			
11	<b>Lumpsum price for Modification / Additional Job on LT Switchgear package at site by the OEM</b>	2 visits	NA	NA	<b>Refer Note-3,5 below</b>
(a)	Lumpsum price for travel by LT Switchgear package OEM to site	2 visits			
(b)	<b>Service charges for engineers:</b> Lumpsum price including Lodging, Boarding etc. for LT Switchgear package OEM for 6 mandays at site per visit	2 visits			
12	<b>Supervision of Installation, Testing, Service and Commissioning of LT Switchboards</b>	2 visits	NA	NA	<b>Refer Note-3,5 below</b>
(a)	Lumpsum price for travel by LT Switchgear package OEM to site	2 visits			
(b)	<b>Service charges for engineers:</b> Lumpsum price including Lodging, Boarding etc. for LT Switchgear package OEM for 6 mandays at site per visit	2 visits			
	<b>GRAND TOTAL</b>		--		
<b>Notes:</b>	1. Bidder to Quote for each and every item as per this schedule. If bidder has not quoted for any item as per the above list then the offer is liable to be rejected.				
	2. Quantity of feeders shall be as per SLDs (Annexure-2) of the specification.				
	3. Actual visits/mandays needed at site will depend on site fronts availability and amount of work involved. For quoting purpose the visits/mandays are specified. However, payment shall be made for actual services provided. The charges/unit rates quoted above at item nos. 10,11 & 12 shall be used for deriving per manday charges. These will be used for making payment for service offered for actual no. of visits/mandays. Also, actual services provided need to be certified by BHEL's site office.				
	4. Unit means 1 no. or 1 set or 1 visit. Accordingly unit prices shall be quoted.				
	5. Lump sum price for each visit shall be for 6 mandays.				

**Signature & Seal of Bidder**  
**Date:**



**SECTION-2**

**UNIT RATES FOR THE SWITCHGEAR ITEMS / SERVICES FOR COMPONENTS' ADDITION / DELETION**

<b>BIDDER:</b>		<b>PRICE OFFER NO. &amp; DATE:</b>		
<b>SL. NO.</b>	<b>DESCRIPTION</b>	<b>RATING</b>	<b>PRICE Ex Works (Rs)</b>	
<b>II. FOR FEEDER MODULES:</b>				
BOM: ALL FITMENTS EXCEPT NUMERICAL RELAY				
		<b>RATING</b>	<b>DRAWOUT</b>	<b>FIXED</b>
1	INCOMERS & BUS COUPLERS (SFU)	Upto 250A		
		400A		
		630A		
2	INCOMERS & BUS COUPLERS (MCCB)	Upto 200A		
		400A		
		630A		
3	INCOMERS & BUS COUPLERS (SFC)	Upto 250A		
		400A		
		630A		
4	INCOMERS & BUS COUPLERS (ACB)	upto 630A		
		800A		
		1000/1250A		
		1600/2500A		
5	ACB CONTROLLED STARTER FEEDER	55kW to 160kW		
		800A		
		1000A		
		1250A		
6	ACB OUTGOING FEEDER	1600A		
		Upto 5.5kW		
		5.6-12kW		
		12.1-22kW		
7	DOL / RDOL OUTGOING FEEDER	22.1-35kW		
		35.1-54.9kW		
		55-74.9kW		
		75-99.9kW		
		100-150kW		
		RDOL Upto 5.5kW		
		RDOL 5.6 to 12kW		
		RDOL 22.1-35kW		
RDOL 35.1-55kW				
8	OUTGOING MCCB FEEDERS	Upto 32A		
		63A		
		100A		
		125A		
		160A		
		200A		
		250A		
8	OUTGOING MPCB FEEDERS	400A		
		Upto 32A		
		63A		
		100A		
		125A		
		160A		
		200A		
9	OUTGOING MCB FEEDERS	250A		
		400A		
		Upto 6A		
		6A-32A		
		63A		
		100A		
		125A		
10	OUTGOING SFC FEEDERS	160A		
		250A		
		400A		
		630A		
		Upto 32A		
		63A		

**SECTION-2**

**UNIT RATES FOR THE SWITCHGEAR ITEMS / SERVICES FOR COMPONENTS' ADDITION / DELETION**

<b>BIDDER:</b>		<b>PRICE OFFER NO. &amp; DATE:</b>		
<b>SL. NO.</b>	<b>DESCRIPTION</b>	<b>RATING</b>	<b>PRICE Ex Works (Rs)</b>	
11	DC DB FEEDERS OUTGOING MCCB	Upto 32A		
		63A		
		100A		
		125A		
		150A		
		200A		
		250A		
		300A		
11	DC DB FEEDERS OUTGOING MCB	Upto 6A		
		32A		
		63A		
		100A		
		125A		
		150A		
		200A		
		250A		
11	UPS DB FEEDERS OUTGOING MCCB	Upto 32A		
		63A		
		100A		
		125A		
		150A		
		200A		
		250A		
		300A		
11	UPS DB FEEDERS OUTGOING MCB	Upto 6A		
		32A		
		63A		
		100A		
		125A		
		150A		
		200A		
		250A		
12	CONTROL / SUB DIST TRANSFORMER MCB FEEDERS (MCB IN DRAWOUT AND TRAF0 IN FIXED)	Upto 5kVA 415/110V 1ph		
		10kVA 415/110V 1ph		
		15kVA 415/110V 1ph		
		Upto 5 KVA 415/240V 1ph		
		10kVA 415/240V 1ph		
		15kVA 415/240V 1ph		
13	MCB MODULE (9kA MCBs)	30 Nos.		
		20 Nos.		
		10 Nos.		
14	LINE / BUS VT MODULES		DRAWOUT	FIXED
a)	PT MODULE IN D/O EXE. COMPRISING OF 3 Nos. of PTs (415V/√3)/(110V/√3)/(110V/√3), 200VA CL1/3P	200VA		
b)	PT MODULE IN D/O EXE. COMPRISING OF 3 Nos. of PTs (415V/√3)/(110V/√3)/(110V/√3), 100VA CL1/3P	100VA		
c)	PT MODULE IN D/O EXE. COMPRISING OF 3 Nos. of PTs (415V/√3)/(110V/√3)/(110V/√3), 50VA CL1/3P	50VA		
15	VACANT MODULE / COMPT.	Upto 200 mm	NA	
		201 TO 500 mm	NA	
		501 TO 800 mm	NA	
16	MARSHALLING COMPT. WITH WIRING (MTB)	Upto 300 mm	NA	
		Above 300 mm	NA	
17	INTELLIGENT / MOTOR CONTROLLERS FOR OUTGOING FEEDER	Upto 5.5kW		
		5.6-12kW		
		12.1-22kW		
		22.1-35kW		
		35.1-54.9kW		
		55-74.9kW		
		75-99.9kW		
100-150kW				

**Signature & Seal of bidder**

**Date:**

**SECTION-2**

**UNIT RATES FOR THE SWITCHGEAR ITEMS / SERVICES FOR COMPONENTS' ADDITION / DELETION**

<b>BIDDER:</b>		<b>PRICE OFFER NO. &amp; DATE:</b>	
<b>SL. NO.</b>	<b>DESCRIPTION</b>	<b>RATING</b>	<b>PRICE Ex Works (Rs)</b>
<b>III. COMMON ITEMS:</b>			
1	RELAYS		
a)	80 (DC supply supervision relay)		
b)	86 (VAJH 23 or equivalent)		
c)	95 (Trip circuit supervision relay)		
d)	27 (Undervoltage relay - Numerical type)		
e)	27-N (No-volt relay)		
f)	2 (Timer)		
g)	DC Earth fault relay (CAEM 21 or equivalent)		
h)	CBCT + CAG12 Relay + VTT 11		
i)	25 (Check synch relay)		
j)	94 (Antipumping relay)		
k)	97 (PT FUSE MONITORING RELAY)		
l)	VAJC or equivalent		
m)	VAA63 or equivalent		
n)	Comprehensive electronic motor protection relay without communication facility		
o)	Comprehensive electronic motor protection relay with communication facility		
p)	Interposing relay		
q)	Intelligent controller		
r)	Converter (Single Trunk Cable to Dual redundant signal)		
2	NUMERICAL RELAYS		
a)	Numerical relay for I/C & B/C feeder of MCC		
b)	Numerical relay for ACB O/G feeder		
c)	Numerical relay for ACB controlled motor feeder		
3	STAYPUT SELECTOR SWITCH 5-WAY, 4-POLE IN EACH WAY		
4	SELECTOR SWITCH, 2-POLE, 4-WAY		
5	TNC SWITCH		
6	PB ( 2 NO + 2 NC)		
7	MCB, DP	6A	
		16A	
		32A	
		63A	
8	MCB, 4-POLE	16A	
		32A	
9	MCCB	16A	
		32A	
		63A	
		100A	
		250A	
10	NIL		
11	INDICATING LAMP ASSEMBLY ( LED )		
12	SLIDE IN CONTACT (SIC) FOR D/O MODULES (Male & Female)		
13	DUAL VOLTMETER		
14	DUAL FREQUENCY METER		
15	SYNCHROSCOPE		
16	ELCB		
17	CTs		
a)	METERING CTs	Upto 25A/1A	
		50A/1A	
		100A/1A	
		150A/1A	
		200A/1A	
		250A/1A	
		400A/1A	
		600A/1A	
		800A/1A	
		1250A/1A	
		2500A/1A	
3200A/1A			
		4000A/1A	

**Signature & Seal of bidder**  
**Date:**

**SECTION-2**

**UNIT RATES FOR THE SWITCHGEAR ITEMS / SERVICES FOR COMPONENTS' ADDITION / DELETION**

<b>BIDDER:</b>		<b>PRICE OFFER NO. &amp; DATE:</b>	
<b>SL. NO.</b>	<b>DESCRIPTION</b>	<b>RATING</b>	<b>PRICE Ex Works (Rs)</b>
b)	CLASS PS CTs	630/1A	
		800/1 A	
		Upto 25A/1A	
		50A/1A	
		100A/1A	
		150A/1A	
		200A/1A	
		250A/1A	
c)	PROTECTION CTs	400A/1A	
		600A/1A	
		800A/1A	
		1250A/1A	
		2500A/1A	
		3200A/1A	
		4000A/1A	
d)	CBCT	100 mA	
18	<b>Meters &amp; their Selector Switches</b>		
a)	AC ammeter		
b)	AC voltmeter		
c)	Voltmeter selector switch		
d)	Ammeter selector switch		
e)	kWh meter with Maximum Demand Indicator (MDI)		
f)	DC Voltmeter		
g)	DC Ammeter		
h)	Double voltmeter		
i)	Double frequency meter		
j)	Synchroscope		
k)	DC Shunt (75 mV)		
l)	kW meter		
m)	PF meter		
n)	kVA meter		
o)	Multifunction meter		
19	<b>Transducers</b>		
a)	Current		
b)	Voltage		
c)	kW		
d)	kVAR		
21	Unit rate for 1 no. auxiliary contactor with 4 NO + 4 NC contacts	AC	
		DC	
		15A	
		30A	
		63A	
		100A	
		150A	
		300A	
		400A	
		500A	
		630A	
22	Power contactors (AC with 2 NO + 2 NC)	63A	
		100A	
		150A	
		200A / 250A	
		400A	
23	Power contactors (DC with 2 NO + 2 NC)	63A	
		100A	
		150A	
		200A / 250A	
		400A	
24	Auxiliary relay for contact multiplication	--	
25	Local starters (MK1 or equivalent)	< 5.5kW	
		22kW-D3	
		11kW-D3	
		7.5kW-D3	
26	DC starter modules	4000A	
28(a)	ACB Closing Coil	3200A	
28(b)	ACB Closing Coil	2500A	
28(c)	ACB Closing Coil	2000A	
28(d)	ACB Closing Coil	1600A	
28(e)	ACB Closing Coil	1250A	
28(f)	ACB Closing Coil		

**Signature & Seal of bidder**

**Date:**

## SECTION-2

## UNIT RATES FOR THE SWITCHGEAR ITEMS / SERVICES FOR COMPONENTS' ADDITION / DELETION

BIDDER:		PRICE OFFER NO. & DATE:		
SL. NO.	DESCRIPTION	RATING	PRICE Ex Works (Rs)	
28(g)	ACB Closing Coil	1000A		
28(h)	ACB Closing Coil	800A		
28(i)	ACB Closing Coil	630A		
29(a)	ACB Shunt Trip Coil	4000A		
29(b)	ACB Shunt Trip Coil	3200A		
29(c)	ACB Shunt Trip Coil	2500A		
29(d)	ACB Shunt Trip Coil	2000A		
29(e)	ACB Shunt Trip Coil	1600A		
29(f)	ACB Shunt Trip Coil	1250A		
29(g)	ACB Shunt Trip Coil	1000A		
29(h)	ACB Shunt Trip Coil	800A		
29(i)	ACB Shunt Trip Coil	630A		
30(a)	Air Circuit Breaker	4000A		
30(b)	Air Circuit Breaker	3200A		
30(c)	Air Circuit Breaker	2500A		
30(d)	Air Circuit Breaker	2000A		
30(e)	Air Circuit Breaker	1600A		
30(f)	Air Circuit Breaker	1250A		
30(g)	Air Circuit Breaker	1000A		
30(h)	Air Circuit Breaker	800A		
30(i)	Air Circuit Breaker	630A		
31	Type Test charges	For 50kA Switchboard		
a	Short Time withstand test			
b	Temperature rise test			
c	Type II Coordination test			
d	Duty cycle test for breaker			
e	Degree of protection test			
f	Mechanical endurance test for breakers			
g	Electrical endurance test for breakers			
32	Lumpsum price including Service, Lodging, Boarding etc.for Supervision of Erection & Commissioning at site	One Man day		
33	Wall Mounted DB (with 1 No.MCCB Incomers of 200A and 6 no. outgoing feeders of 32A MCCB).	--		