

ANNEXURE - 2 I

PRICE SCHEDULE FOR INDIAN BIDDER - MANDATORY SPARES OF COMPRESSED AIR SYSTEM PACKAGE

Sl.no	Description	Required Qty.	Qty. Offered	Unit Ex-works price	Total ex-works price	ED @ ...% (for self manufactured items only) (INR)	CST @% Against C-form & E1/E2 or VAT @.....% Whichever is applicable (INR)	FREIGHT (including service tax, if any) @% of total ex-works price	Total Lumpsum price FOR site (INR)
1	2		3	4	5	6	7	8	9 = 5+6+7+8
X	Mechanical								
	SCREW COMPRESSOR								
1.1	HP Stages of Compressor								
	(i) HP element	One (1) Set							
	(ii) Packing Set	Four (4) Sets							
	(iii) Axial thrust brg.	Two (2) Sets							
	(iv) Labyrinth oil seal or radial seals or double acting seals for drive shaft	Four (4) Sets							
	v) Bearing for male & female rotors (DE & NDE)	Two (2) each							
	vi) Timing Gears	One (1)							
	vii) Suction & discharge valves	Two (2) each							
1.2	LP Stages of Compressor								
	(i) LP element	One (1) Set							
	(ii) Graphitic ring shaft seals for compressor chamber or whitmetal labyrinth seals	Four (4) Sets							
	(iii) Packing Set	Four (4) Sets							
	(iv) Axial thrust Bearing	Two (2) Sets							
	v) Bearing for male & female rotors (DE & NDE)	Two (2) each							
	vi) Timing Gears	One (1)							
	vii) Suction & discharge valves	Two (2) each							
1.3	Main Bearing	Two (2) each							
1.4	Set up gear/pinion	One (1)							
1.5	Air intake filter element with gaskets	Eight (8)							
1.6	Oil filter element with gaskets & seals	Eight (8)							
1.7	Safety valve springs & gaskets	Four (4)							
1.8	One set of inbuilt automatic drain valve	Four (4)							
1.9	Gearcase breather filterelemnt	One (1)							
1.10	Drain valve kit	One (1)							
1.11	Compressors Coolers								
	i) Gaskets & seals for inter cooler and after cooler	Four (4)							
	ii) Inter cooler drain check valve	One (1)							
1.12	Oil Pump/Motor								
	i) Oil pump complete assembly	One (1)							
	ii) Pump impeller/rotor with shaft	One (1)							
	iii) Set of bearings	Two (2) Sets							
	iv) Oil pump motor bearing	Two (2)							
1.13	Shaft driven oil pump								
	i) Drive gear with shaft	One (1)							
	ii) Driven gear with shaft	One (1)							
1.14	Drain tap elements	Four (4)							
1.15	Moisture tap elements	Four (4)							
1.16	Oil cooler gaskets and seals	Four (4)							
1.17	Seal Washer	Two (2)							
1.18	Mass flow Meter	One (1)							
1.19	Air Drying Plant								
	i) Pre filter element (ceramic candle)	Two (2)							
	ii) After filter element (ceramic candle)	Two (2)							
	iii) Heater element (if required)	Two (2)							
	iv) Blower bearing (if required)	Two (2)							
	v) Blower motor bearing (if required)	Two (2)							
	vi) Valve actuators	Two (2)							
	vii) Inlet & Outlet valve for Dryer	One (1) Set							
	viii) Automatic drain valves (No air loss type)	One (1) Set							
	ix) Espansion valves	One (1) Set							
	x) Filter Dryer	One (1) Set							
	xi) Air cooler condenser fan	One (1) Set							

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Y.	Electrical								
	PMCC/MCC/ACDB (As applicable)								
2.1	Contactor								
2.1.1	Power Contactor (AC)								
2.1.1.1	Power Contactor Complete Assembly	4 Nos.for each type and rating							
2.1.1.2	Power Contactor spare kits	10Sets for each type and rating							
2.1.1.3	Power Contactor AC Coils	10Nos. Coils for each type and rating							
2.1.2	Auxiliary Control Contactor (AC)								
2.1.2.1	Auxiliary Control Contactor Complete Assembly	30 Nos.for each type and rating							
2.1.2.2	Auxiliary Control Contactor spare kits	40 Sets for each type and rating							
2.1.2.3	Auxiliary Control Contactor AC Coils	35 Nos.for each type and rating							
2.2	MCCB (Power Circuit)								
2.3	MCB (Control Circuit)								
2.4	Switch								
2.4.1	Local / Remote Selector Switch	10Nos.							
2.4.2	MCCB Status (On/off) Monitoring Switch/Contact	5Nos.							
2.4.3	Trial / Normal /MCC Selector Switch	15Nos.							
2.4.4	MCC module Service Position Limit Switch	5Nos.							
2.5	Thermal Overload Relay								
2.6	Sliding Contact (Fixed & Moving)								
2.7	Bus bar to MCC module Lira Contact Assembly (Bus-end & MCC Module-end)	5Sets for each type and rating							
2.8	Indicating Lamps complete assembly								
2.8.1	Red	30Sets							
2.8.2	Amber	30Sets							
2.8.3	Green	30Sets							
2.9	Push Button (On/Off) Complete Assembly								
2.1	CT								
2.11	Ammeter								
2.12	Control Transformer								
2.13	Off Delay/ On Delay Timer								
2.14	Switch Fuse Unit								
2.15	Terminal Block								
2.15.1	Power Terminal Block	10% of total nos. for each type and rating used in the system or minimum one (1) no. whichever is more							
2.15.2	Control Terminal Block	10% of total nos. for each type and rating used in the system or minimum one (1) no. whichever is more							
2.15.3	End Plate for Power & Control Terminal Block	Each type 25Nos.							
2.3	Energy Meter								
2.4	Control Panel/Desk Mounted Items								
2.4.1	Push Button								
2.4.1.1	Complete assembly	5Nos for each colour							
2.4.1.2	Contact Element (1NO + 1NC) Block	20Nos.							
2.4.2	Selector Switch								
2.4.3	Meter (Analog or Digital)								

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2.4.1	Ammeter	10% for each type and range or minimum one (1) no. whichever is more							
2.4.2	Voltmeter	10% for each type and range or minimum one (1) no. whichever is more							
2.4.3	Frequency	10% for each type and range or minimum one (1) no. whichever is more							
2.4.4	MW	10% for each type and range or minimum one (1) no. whichever is more							
2.4.5	MVAR	10% for each type and range or minimum one (1) no. whichever is more							
2.4.6	Power Factor	10% for each type and range or minimum one (1) no. whichever is more							
2.4.7	Synchroscope	10% for each type and range or minimum one (1) no. whichever is more							
2.5	Indicating Lamps complete assembly	10Nos. for each Colour and type							
2.6	Mimic Lamps	10Nos. for each Colour and type							
2.7	MCB	2Nos. for each type and rating							
2.8	Door Limit Switch	2Nos.							
2.9	Annunciation system								
2.9.1	Lamp Box with Facia & Lamps (LED type)	25Nos.							
2.9.2	Hooter	1No.							
2.9.3	Each type of PCB (for non-PLC driven system)	1(one) no.							
2.1	Actuator								
2.10.1	Complete set of Actuator	1No. for each type and rating							
2.10.2	Limit Switch	2 Nos each type and rating							
2.10.3	Torque Switch	2 Nos each type and rating							
2.10.4	Auxiliary Contact	1 no each type and rating							
2.10.5	Motor	1 no each type and rating							
2.10.6	Complete Seal kit	1Set for each type and rating							
2.10.7	Complete O-Ring Set	1Set							
Z C&I									
3.1	Field Instruments (Transmitters/temperature elements (TC / RTD) / Gauges / Switches etc. along with relevant accessories)	10 (ten) percent of total of each type or at least one (whichever is higher) of each type along with accessories.							
3.2	Control System (DCS, PLC etc.)								
3.2.1	keyboard and cursor control devices.	2 (two) numbers each							
3.2.2	LCD TFT (24") Monitors.	2 (two) numbers							
3.2.3	Spare interface cables with connecting plugs	10 (ten) sets for each type of peripherals & I / O hardware.							
3.2.4	Power supply modules	10 (ten) percent for each type or 4 (four) numbers, whichever is higher.							
3.2.5	Electronic modules (I / O)	10 (ten) percent of the total qty. offered for each type or 5 (five) numbers of each electronic type of module, whichever is higher.							
3.2.6	Bus couplers and communication interface cards	10 (ten) percent of total of each type or 2 (two) numbers of bus couplers and communication interface cards whichever is higher.							
3.2.7	Controllers for DCS,Control panel ST,Boiler control system,Balance of plant system,PLC system/Sub-systems	10%of each type(at least 1 no. of each type) whichever is higher.							
3.3	Valves, Actuators & Accessories								
3.3.1	Control Valves								

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3.3.1.1	Control valve stem packing , as offered.	2 (two) sets for each of the control valves							
3.3.1.2	of spare valve trim (including cage, plug, stem, seat rings, guide bushings etc.)	1 (one) set for both the units for each of the control valves, as offered.							
3.4	Actuators								
3.4.1	Actuators with drive	1 (one) set of each type and rating.							
3.4.2	Valve positioners	10 (ten) percent of each type.							
3.4.3	Position transmitters	10 (ten) percent of each type.							
3.4.4	Limit switches/torque switches	10 (ten) percent of each type.							
A	Total Lumpsum price of Mandatory Spares								

Notes

- a) Unless stated otherwise, a 'set' means item or sub-items required for each type/ size, range of assembly/ sub- assembly required for complete replacement in one equipment system; it is further intended that the assembly/ sub-assembly which have different orientation (like left hand or right hand, top or bottom), different direction of rotation or mirror image positioning or any other reasons which result in marinating two different sets of spares to be used for subject assembly/ sub assembly, these shall be considered as different type of assembly/ sub assembly.
- b) Wherever quantity has been specified as percentage(%), the quantity of mandatory spares to be provided by the vendor shall be the specified percentage (%) of total population required to meet the specification requirements. In case the quantity of mandatory spares so calculated happens to be in fraction, the same shall be rounded off to next higher whole number.
- c) Wherever the quantities have been indicated for each type, size, thickness, material, radius , range etc, these shall cover all the items supplied and installed and the breakup of these shall be furnished by the vendor during detail engineering.
- d) In case spares indicated in the list are not applicable to the particular design offered by the bidder, the bidder should offer spares applicable to the offered design with quantities genaarally in line with the approach followed in the above list.
- e) Wherever bidder has indicated an item as not applicable, the same will have to be supplied free of cost, incase it is found applicable during detail engineering.

Bidder's / bidder's representative signature

Company seal

199

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31/03/16

PRICE SCHEDULE FOR COMPRESSED AIR SYSTEM PACKAGE

Rev 02

INDIAN BIDDER

1 X 800 MW WANAKBORI TPP

ANNEXURE-3 I

GUARANTEED POWER CONSUMPTION - PRICE SCHEDULE FOR COMPRESSED AIR SYSTEM PACKAGE

Guaranteed Power Consumption For Air Compressor System Shall be as per Following :

S.No. (1)	Description of Equipments (2)	Nos. of Equipments (3)		Total Guaranteed Power Consumption for Each Equipment at Motor Input Terminals & control Panel (4)	Duty Factor (5)	Total (KW) (6) = (3A)*(4)*(5)
		Working (3A)	Standby (3B)			
1	Service Air Compressor (Oil free Screw type) 30 NM3/min at 8.5 Kg/cm2 pressure	2	1		1	
2	Instrument Air Compressor (Oil free Screw type) 30 NM3/min at 8.5 Kg/cm2	2	1		1	
3	Air Drying Plant Unit (Refrigerant type)	2	1		1	
					TOTAL	

Note :

1	Estimated Power Consumption Figure for the compressed air system (For Working Drives Only) considered is 1100 KW (For station)
2	Bidders Guaranteed power consumption at motor input terminals (Not Shaft Power) including power for control panel as furnished in guranteed schedule shall be demonstrated by the successful bidder during performance testing at works/site.
3	The price quoted by the bidder shall be loaded @ (INR)200000/- for every additional kW increase in consumption from the base figure indicated at Note no. 1.0 above.
4	In case the successful bidder fails to establish / prove the guaranteed values of power consumption (base figure of auxiliary power consumption) on actual performance testing at the manufacturing works / site, penalty @ (INR)200000/- per kW increase in power consumption figure shall be levied.

198

318/03/16

DEVIATION SHEET (COST OF WITHDRAWL)

ANNEXURE- 4 I

PROJECT:- 1 X 800 MW WANAKBORI TPS

PACKAGE:- COMPRESSED AIR SYSTEM PACKAGE

TENDER ENQUIRY REFERENCE:-

NAME OF VENDOR:-

SL NO	VOULME/ SECTION	PAGE NO.	CLAUSE NO.	TECHNICAL SPECIFICATI ON/ TENDER DOCUMENT	COMPLETE DESCRIPTION OF DEVIATION	COST OF WITHDRAWL OF DEVIATION	REFERENCE OF PRICE SCHEDULE ON WHICH COST OF WITHDRAWL OF DEVIATION IS APPLICABLE	NATURE OF COST OF WITHDRAWL OF DEVIATION (POSITIVE/ NEGATIVE)	REASON FOR QUOTING DEVIATION
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TECHNICAL DEVIATIONS

COMMERCIAL DEVIATIONS

PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE

NAME	DESIGNATIONS	SIGN & DATE
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NOTES:

1. For self manufactured items of bidder, cost of withdrawl of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
2. For directly dispatchable items, cost of withdrawl of deviation will be applicable on the basic price including taxes, duties & freight.
3. All the bidders have to list out all their Technical & Commercial Deviations (if any) in detail in the above format.
4. Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
5. Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawl of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable.
6. Bidder shall furnish price copy of above format along with price bid.
7. The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
8. Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
9. For deviations w.r.t. Payment terms, Liquidated damages, Firm prices and submission of E1/ E2 forms before claiming 10% payment, if a bidder chooses not to give any cost of withdrawl of deviation loading as per Annexure-VIII of GCC, Rev-06 will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawl of deviation shall be taken as NIL.
10. Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be accepted.
11. All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of this format.
12. Cost of withdrawl is to be given seperately for each deviation. In no event bidder should club cost of withdrawl of more than one deviation else cost of withdrawl of such deviations which have been clubbed together shall be considered as NIL.
13. In case nature of cost of withdrawl (positive/negative) is not specified it shall be assumed as positive.
14. In case of discrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.

192

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31/03/16