

1 X 800 MW WANAKBORI TPS - COMPRESSED AIR SYSTEM PACKAGE														
PRICE SCHEDULE - FOR FOREIGN BIDDER - Annexure 1 F														
Sl. No	DESCRIPTION OF EQUIPMENT / ITEM	Qty	INDIGENEOUS ITEMS (Supply from Indian Territory)						E&C(Erection & Commissioning) Charges		Total Lumpsum COST for supply (on C & F Basis) including E&C charges ((Currency/INR/US\$))			
			Total Price on C & F Basis (at Indian Port ...)	TOTAL EX-WORKS PRICE (INR)	Exide Duty @ ...%	CST @ ...%	FREIGHT CHARGES INCLUDING SERVICE TAX @ ...%	TOTAL F.O.R RATE PRICE (INR)	Total FOR S&S IMPORTED + SUPPLIES ((Currency/INR/US\$))	E & C (Currency)		SERVICE TAX @ ...%	Sketch Sheet Cost (SBC) @ 15% on E & C (Currency)	TOTAL E & C INCLUDING SERVICE TAX (if applicable) (Currency)
1.0.0	Total lumpsum firm prices for the supply of equipment & services as specified, Comprising Design, Engineering, Manufacture, Inspection & Testing at Manufacturer's Works, Painting at Manufacturer's Works, Duly packed for Transportation, Delivery to Site, loading, unloading & storage at site, supply of erection materials, consumables, start-up & commissioning spares, and mandatory spares as required to complete the compressed air system including service part for unloading, storage & handling at site, erection, commissioning, trial run, carrying out performance tests at site, handing over to customer in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in technical specification (Spec.No. PE-TS-408-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Compressed Air System for 1 X 800 MW WANAKBORI TPS.	1 LOT	2	3	4	5	6	7=3+4+5+6	8=7+2	9	10	11	12=9+10+11	13=12+8
2.0.0	Break up prices for items covered in clause 1.0.0 above.													
2.1.0	Total lumpsum firm prices for the Main supply of equipment as specified, Comprising Design, Engineering, Manufacture, Inspection & Testing at Manufacturer's Works, Painting at Manufacturer's Works, Duly packed for Transportation, Delivery to Site, loading, unloading & storage at site, supply of erection materials, consumables, start-up & commissioning spares as required to complete the compressed air system for the total scope defined in technical specification (spec.No. PE-TS-408-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Compressed Air System for 1 X 800 MW Wanakbori TPS. (Excluding Mandatory spares)													
2.2.0	Total lumpsum firm prices for the supply of equipment as specified, Comprising Design, Engineering, Manufacture, Inspection & Testing at Manufacturer's Works, Painting at Manufacturer's Works, Duly packed for Transportation, Delivery to Site, loading, unloading & storage at site for Mandatory spares (as per Attached annexure-1) required to complete the compressed air system including handing over to customer in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in technical specification (spec.No. PE-TS-408-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date of package order for Compressed Air System for 1 X 800 MW Wanakbori TPS.													
2.3.0	Total lumpsum firm prices for the services as specified, comprising of service part for unloading, storage & handling at site, erection, commissioning, trial run, carrying out performance tests at site, handing over to customer in line with drawings/ documents/ test procedures approved by BHEL/ customer, for the total scope defined in technical specification (spec.No. PE-TS-408-555-A001) and terms & conditions of tender, taking into account all clarifications, confirmations and agreements till date for Compressed Air System for 1 X 800 MW WANAKBORI TPS.													
NOTES:														
a)	Bidder to note that total price indicated above at 1.0.0 shall be considered for evaluation and hence should be complete in all respects for the full scope defined and considering all terms and conditions agreed.													
b)	Any item not included in the price quoted above and shown separately will not be taken cognizance of and the offer shall be liable for rejection.													
c)	Total Lumpsum price in column-13 of Sl. No. 1.0.0 should match with summation of total prices as in Column -13 of Sl. No. 2.1.0 + Column 13 of Sl. No. 2.2.0 + Column 13 of Sl. No. 2.3.0.													
d)	Total Lumpsum price in column-13 of Sl. No. 2.2.0 should match with summation of total prices as in Column -9 of Annexure-2 F.													
e)	Total erection & commissioning charges including service tax should be minimum 10% of the total quoted package price (excluding mandatory spares but including all taxes and freight), falling which the break-up of prices shall be adjusted accordingly for ordering.													
f)	All deviations, along with cost of withdrawal, should necessarily be marked in Cost of withdrawal sheet (Annexure-4F) only. Deviations marked elsewhere/ hidden deviations (other than those given in schedule of deviation) shall not be taken into cognizance.													
g)	Bidder must submit prices in the Pro Forma duly filled in signed and stamped on every page without any ambiguity. The price shall be written against each item. Term such as "refer covering letter" etc. are not acceptable. Price format shall not be changed by the bidder as the bidder may get disqualified by doing so.													
h)	During execution stage there will not be any Billing Break Up (BBU) for making progressive payments for supply purpose. Total supply payment shall be made after receipt of complete materials at site. For this the successful bidder has to give a complete BOQ for engineering approval. However, anything else, over and above the finalized BOQ, required to complete the contractual requirements shall be supplied by the successful bidder within the quoted price. For further details delivery conditions as defined elsewhere to be noted.													

196

31/03/16

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1 X 800 MW WANAKBORI TPS - COMPRESSED AIR SYSTEM PACKAGE  
 PRICE SCHEDULE - FOR FOREIGN BIDDER - Annexure I F

Sl.No	DESCRIPTION OF EQUIPMENT / ITEM	Qty	INDIGENEOUS ITEMS (Supply from Indian Territory)						E&C(Erection & Commissioning) Charges				Total Lumpsum COST for supply (on C & F Basis) and E&C ((Currency-Currency-Cu trans))	
			Total Price on C & F Basis (of Indian Port (Currency))	TOTAL EX-WORKS PRICE (INR)	Excise Duty @ ...% (for self manufactured items only) (INR)	CEST @ ...% Against Central & State VAT @ ...% (if applicable) (INR)	FREIGHT CHARGES INCLUDING SERVICE TAX @ ...% TOTAL EX-WORKS (INR)	TOTAL F.O.R RATE PRICE (INR)	Total FOR THE IMPORTED + INDIGENEOUS SUPPLY (INR) ((Currency-INR)-INR)	E & C (Currency)	SERVICE TAX @ ...% (Currency) on E&C Charges	Swach Bharat Cess (SBC) @ 0.5% on E & C (Currency)		TOTAL E & C INCLUDING SERVICE TAX (if applicable) (Currency)
			2	3	4	5	6	7 = 3+4+5+6	8 = 7+2	9	10	11	12 = 9+10+11	13 = 12+8
Bidder's / bidder's representative signature														
Company seal														

*[Handwritten Signature]*  
 31/03/16

195

1 X 800 MW WANAKBORI TPS - COMPRESSED AIR SYSTEM PACKAGE

Rev 02

ANNEXURE 2 F

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

Sl.no	Description	Required Qty.	Qty. Offered	IMPORTED ITEMS (Supply not from Indian Territory)		INDIGENEOUS ITEMS (Supply from Indian Territory)					Total FOR Site IMPORTED + INDIGENEOUS SUPPLY [(Currency+INR)+INR]	
				Unit Price on C & F basis (at Indian Port ...) (Currency)	Total Price on C & F basis (at Indian Port ...) (Currency)	UNIT EX-WORKS PRICE (INR)	TOTAL EX-WORKS PRICE (INR)	ED @ ...% (for self manufactured items only) (INR)	CST @ ...% Against C-form & E1/E2 or VAT @ ...% Whichever is applicable (INR)	FREIGHT CHARGES INCLUDING SERVICE TAX @ ...% OF TOTAL EX-WORKS (INR)		TOTAL F.O.R SITE PRICE (INR)
				1	2	3	4	5	6	7	8 = 4+5+6+7	9 = 8 + 2
<b>X.</b>	<b>Mechanical</b>											
	<b>SCREW COMPRESSOR</b>											
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 whitemetal 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 filterelement	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)										

194

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3/10/16

**1 X 800 MW WANAKBORI TPS - COMPRESSED AIR SYSTEM PACKAGE**      **Rev 02**  
**ANNEXURE 2 F**  
**PRICE SCHEDULE FOR FOREIGN BIDDER - MANDATORY SPARES OF COMPRESSED AIR SYSTEM PACKAGE**

Sl.No	Description	Required Qty.	Qty. Offered	IMPORTED ITEMS (Supply not from Indian Territory)		INDIGENEOUS ITEMS (Supply from Indian Territory)				Total FOR Site IMPORTED + INDIGENEOUS SUPPLY [(Currency+INR)+INR]	
				Unit Price on C & F basis (at Indian Port ...) (Currency)	Total Price on C & F basis (at Indian Port ...) (Currency)	UNIT EX-WORKS PRICE (INR)	TOTAL EX-WORKS PRICE (INR)	ED @...% (for self manufactured items only) (INR)	CST @ ...% Against C-form & E1/E2 or VAT @...% Whichever is applicable (INR)		FREIGHT CHARGES INCLUDING SERVICE TAX @ ...% OF TOTAL EX-WORKS (INR)
	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) Expansion valves	One (1) Set									
	x) Filter Dryer	One (1) Set									
	xi) Air cooler condenser fan	One (1) Set									
<b>Y.</b>	<b>Electrical</b>										
	<b>PMCC/MCC/ACDB (As applicable)</b>										
<b>2.1</b>	<b>Contactor</b>										
	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)	5 Nos. for each type and rating									
	2.3 MCB (Control Circuit)	25 Nos. for each type and rating									
	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	5Nos. for each type and rating									
	2.6 Sliding Contact (Fixed & Moving)	25Sets									
	2.7 Bus bar to MCC module Lira Contact Assembly / Bus-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	20Sets									
	2.1 CT	1No. for each type and rating									
	2.11 Ammeter	1No. for each type and rating									
	2.12 Control Transformer	1No. for each type and rating									
	2.13 Off Delay/ On Delay Timer	5Nos. for each type and rating									
	2.14 Switch Fuse Unit	5Nos. for each type and rating									
	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	1No. For each type & rating									
	2.4 Control Panel/Desk Mounted Items										
	2.4.1 Push Button										
	2.4.1.1 Complete assembly	5Nos for each colour									

193

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31/03/16

1 X 800 MW WANAKBORI TPS - COMPRESSED AIR SYSTEM PACKAGE

Rev 02

ANNEXURE 2 F

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

Sl.no	Description	Required Qty.	Qty. Offered	IMPORTED ITEMS (Supply not from Indian Territory)		INDIGENOUS ITEMS (Supply from Indian Territory)				Total FOR Site IMPORTED + INDIGENOUS SUPPLY [(Currency+INR)+INR]	
				Unit Price on C & F basis (at Indian Port ...)(Currency)	Total Price on C & F basis (at Indian Port ...)(Currency)	UNIT EX-WORKS PRICE (INR)	TOTAL EX-WORKS PRICE (INR)	ED @...% (for self manufactured items only) (INR)	CST @...% Against C-form & I1/E2 or VAT @...% Whichever is applicable (INR)		FREIGHT CHARGES INCLUDING SERVICE TAX @...% OF TOTAL EX-WORKS (INR)
2.4.1.2	Contact Element (1NO + 1NC) Block	20Nos.									
2.4.2	Selector Switch	10Nos. for each type and rating									
2.4.3	Meter (Analog or Digital)										
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	CAI										
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										
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

192

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31/02/16

ANNEXURE 2 F  
PRICE SCHEDULE FOR FOREIGN BIDDER - MANDATORY SPARES OF COMPRESSED AIR SYSTEM PACKAGE

Sl.no	Description	Required Qty.	Qty. Offered	IMPORTED ITEMS (Supply not from Indian Territory)		INDIGENEOUS ITEMS (Supply from Indian Territory)					Total FOR Site IMPORTED + INDIGENEOUS SUPPLY [(Currency+INR) +INR]	
				Unit Price on C & F basis (at Indian Port ...) (Currency)	Total Price on C & F basis (at Indian Port ...) (Currency)	UNIT EX-WORKS PRICE (INR)	TOTAL EX-WORKS PRICE (INR)	ED @...% (for self manufactured items only) (INR)	CST @ .....% Against C-form & EI/EI or VAT @.....% Whichever is applicable (INR)	FREIGHT CHARGES INCLUDING SERVICE TAX @.....% OF TOTAL EX-WORKS (INR)		TOTAL F.O.R SITE PRICE (INR)
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 maintaining 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 generally 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												

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31/03/16

PRICE SCHEDULE FOR COMPRESSED AIR SYSTEM PACKAGE				Rev 02	07.03.2016	
1 X 800 MW WANAKBORI TPP						
ANNEXURE - 3 F						
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	Serve 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	
					<b>TOTAL</b>	
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 guaranteed 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.					

31/03/16

