

Unprice Schecule										
NAME OF PROJECT:		(4 X 210 + 3 X 500 MW) KAHALGAON TPS-FGD			Enquiry No-PE/PG/KAG/E-6639/2021 Dated 21.05.2021					
NAME OF PACKAGE:		COMPRESSED AIR SYSTEM								
TECHNICAL SPECIFICATION:		PE-TS-481-555-A001								
S. No.	DESCRIPTION	UNIT	QTY	Total Ex-Works Price (INR)	Freight %	Freight in INR	Total FOR Site Price excluding GST (INR)	Unit E&C Price (INR)	Total E&C Price (INR)	Grand Total (Supply +E&C+ Mandatory Spares)
1.0	Total lump sum firm price for Supply part, Services part including Mandatory Spares, comprising of design (i.e. preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles, fill of lubricants & consumables, mandatory spares along with spares for erection, start up and commissioning as required, forwarding, proper packing, shipment and delivery at site, unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, final painting at site, minor civil work, trial run at site, preparation of layout drawings and carrying out Performance guarantee tests at site, training of customer/client and O&M staff and handover in flawless condition of the package to the end customer complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification, amendment & agreements till placement of order.	Lot	1							
2.0	MAJOR BREAK-UP OF PRICES GIVEN IN 1.0 ABOVE.									
2.1	Total lump sum firm price for Supply part comprising of design (i.e.preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles, fill of lubricants & consumables alongwith spares for erection as required, startup and commissioning spares, forwarding, proper packing, shipment and delivery at site, preperation of layout drawings for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order. (Break-up as per Annexure-I)	Lot	1							
2.2	Total lumpsum firm prices for Services part comprising of unloading, handling, transportation & storage at site, in-site transportation, assembly, erection & commissioning, final painting at site, minor civil work, trial run at site and carrying out Performance guarantee / Functional / Demonstration tests at site (As applicable), training of customer/client O&M staff and handover in flawless condition of the package to the end customer complete with all accessories for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order.	Lot	1							
2.3	Total lumpsum firm price for Mandatory Spares comprising of manufacture, fabrication, assembly, inspection / testing (as applicable) at vendor's & sub-vendor's works, painting, forwarding, proper packing, shipment, delivery at site & guarantee as per tender technical specification above, amendment & agreements till placement of order. (Price break up of Mandatory Spares is to be furnished as per Annexure- II)	Lot	1							
Grand Total (Supply +E&C+ Mandatory Spares) in Words										

Particulars of bidder / authorised representative				
Name	Designation	Signature	Date	Company Seal

ANNEXURE-I (For Supply)

NAME OF PROJECT:	(4 X 210 + 3 X 500 MW) KAHALGAON TPS
NAME OF PACKAGE:	COMPRESSED AIR SYSTEM
TECHNICAL SPECIFICATION:	PE-TS-481-555-A001

S. No.	DESCRIPTION	UNIT	QTY	Unit Ex-works Price (INR)	Total Ex-works Price (INR)
	BREAK-UP OF SUPPLY PRICES GIVEN IN 2.1 OF MAIN SHEET.				
2.1	Total lump sum firm price for Supply part comprising of design (i.e.preparation and submission of drawing /documents including "As Built" drawings and O&M manuals), engineering, manufacture, fabrication, assembly, inspection / testing at vendor's & sub-vendor's works, painting, maintenance tools & tackles, fill of lubricants & consumables alongwith spares for erection as required, startup and commissioning spares, forwarding, proper packing, shipment and delivery at site, preperation of layout drawings for the total scope defined as per BHEL NIT & tender technical specification as specified above, amendment & agreements till placement of order. (Break-up as per Annexure-I)	Lot	1		
	Break up prices for items covered in clause 2.1 above.				
2.1.1	Air Compressors (Oil Free Screw type) each of minimum 15 NM3/Min capacity @ 8.5 kg/cm2 (min.) discharge pressure with suction filter with silencer, inter cooler and after cooler with moisture separators, automatic drain traps, instruments, control system, cable lugs, glands and other accessories including electric motor drive.	Nos.	2		
2.1.2	Air Drying Plants Heat of compression (HOC) Rotary type/ Twin Tower Type of min. 15 NM3/min. capacity for Instrument Air Compressor with all instruments, control panels and other accessories as specified.	Nos.	2		
2.1.3	Air Receivers required for Compressed Air System of minimum 02 Cu.M capacity each with instruments, relief valve, isolation valve, drain connection with automatic trap stations (zero purge air loss type) and other accessories as specified.	Nos.	2		
2.1.4	Inter connecting cooling water, drain piping and compressed air piping as specified including fittings and valves etc. for complete Compressed air system.	Lot	1		
2.1.5	Field instruments, junction box, Tools & Tackles etc. for complete Compressed air system.	Lot	1		
2.1.6	Sequential Panel for equal no. of running hours	No.	1		
2.1.7	Operational spares for complete Compressed air system.				
a	Lube oil (Qty. for 1 Lot in Ltr. shall be as per oil tank capacity for One Compressor)	Lot	2		
b	Lube oil filters with seals	Nos.	4		
c	Air filters with gaskets	Nos.	4		
d	Service kit including seals, washers and rings for intercooler	Nos.	2		
e	Service kit including seals, washers and rings for after cooler	Nos.	2		

Particulars of bidder / authorised representative

Name	Designation	Signature	Date	Company Seal

ANNEXURE-II
LIST OF MANDATORY SPARES

NAME OF PROJECT:		(4 X 210 + 3 X 500 MW) KAHALGAON TPS	
NAME OF PACKAGE:		COMPRESSED AIR SYSTEM	
TECHNICAL SPECIFICATION:		PE-TS-481-555-A001	
S. No.	DESCRIPTION	QTY/UNIT	Total Ex-works Price (INR)
1.0	Oil free Screw Air Compressor		
1.1	H. P. Stage Complete HP Stage assembly consisting of high pressure element, Bearing for male and female rotors (drive end), Bearing for male and female rotors (non-drive end), Timing gears, Graphite ring shaft for compressor chamber seals or white metal labyrinth, suction valve, discharge valve, packing set, Axial thrust bearing, Labyrinth oil seal or radial seals or double acting seals for drive shafts.	1 Set of each type/rating	
1.2	L. P. Stage Complete LP Stage assembly consisting of high pressure element, Bearing for male and female rotors (drive end), Bearing for male and female rotors (non-drive end), Timing gears, Graphite ring shaft for compressor chamber seals or white metal labyrinth, suction valve, discharge valve, packing set, Axial thrust bearing, Labyrinth oil seal or radial seals or double acting seals for drive shafts.	1 Set of each type/rating	
1.3	Motor Bearings	2 Sets	
1.4	LP stage Gear and Pinion	1 Set	
1.5	HP stage Gear and Pinion	1 Set	
1.6	Air Intake Filter Element With Gaskets	4 Sets	
1.7	Oil Filter Element With Gaskets & Seals	4 Sets	
1.8	Safety Valve Springs and Gaskets for HP stage	1 Set	
1.9	Safety Valve Springs and Gaskets for LP stage	1 Set	
1.10	Valves (within the compressor house with actuators)	2 nos of each type/ ratings/ size.	
1.11	Oil Pump/Motor		
1.11.1	Oil Pump and Motor complete assembly	1 Set	
1.11.2	Pump impeller/rotor with shaft	1 Set	
1.11.3	Set of bearings	2 Set	
1.11.4	Set of Seals	2 Set	
1.12	Drain / Moisture Trap	2 Set of each type/size.	
1.13	Oil Cooler Gaskets & Seals	2 sets	
2.0	AIR DRYING PLANT (Twin tower type) FOR IA SYSTEM (As applicable)		
2.1	Pre filter element(Ceramic candle or as applicable)	2 sets	
2.2	After filter element(Ceramic candle or as applicable)	2 sets	
2.3	Heater element(if applicable)	1 sets	
2.4	Blower bearing(if applicable)	1 sets	
2.5	Blower motor bearing(if applicable)	2 sets	
2.6	Valves & Valve Actuators (pneumatic/hydraulic)	2 sets	
2.7	Heater coil for temperature stabilization (for HOC type)(as applicable)	2 sets	
3.3	Rotary drum type Air drying plant for Instrument Air system (As applicable)		
3.3.1	Drive assembly consisting of motor, gear boxes, drive shaft & coupling	1 set	
3.4	Motor for air compressor	1 no.	

S. No.	DESCRIPTION	QTY/UNIT	Total Ex-works Price (INR)
3.5	MEASURING INSTRUMENTS		
	1 Electronic Transmitters		
(i)	Transmitters of all types, ranges and model no. (for the measurement of Pressure, differential pressure flow, level, etc.)	10% or 1 No. of each type and model, whichever is more	
2	Temperature elements		
(i)	RTD's* of each type and length	10% or 2 Nos. of each type and length Which ever is more	
ii)	Thermocouples of each type like K-type, R-type, metal etc. and length *	10% or 2 Nos. of each type and length Which ever is more	
(iii)	Thermowell for application like mill outlet temperature and SH/RH/Eco/ true gas temp. in furnace	10% or 2 Nos. of each type and length Which ever is more	
(iv)	Temperature transmitters	10% of each type and length whichever is more	
3	Local Indicators like temperature gauges, pressure gauges, differential pressure gauges, flow gauges flow meters etc.,	5% or 1 No. of each make, model and type whichever is more (to be divided to various ranges in proportion to main of all make,	
4	Process Actuated Switch Devices Includes all types of Pressure, differential pressure, flow, temperature, differential temperature, level switch Devices	5% or 1 No. of each type and model whichever is more	
5	Dew Point meters	5% or 1 No. of each type and model whichever is more	
3.6	MICROPROCESSOR BASED/PLC BASED CONTROL/ ELECTRONIC BASED CONTRAL PANEL (IF APPLICABLE)		
1	Fully programmed controller of electronic modules of each type (as applicable)	10% or 1 no. whichever is more	
2	Power supply module (if applicable)	10% or 1 no. whichever is more	
Total			
NOTE:			
1	Wherever set is mentioned, one set of the spares of that item shall be for complete replacement of that particular item for one equipment.		
2	Any fraction of a item shall mean the next higher integer.		
3	Wherever quantity has been specified as percentage (%), the quantity of mandatory spares to be provided by contractor shall be the specified percentage (%) of the total population of the plant. In case the quantity so calculated happens to be fraction, the same shall be rounded off to next higher whole number.		
4	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 for these shall be furnished in the bid.		
5	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 offered design with quantities generally in line with the approach followed in the above list.		

ANNEXURE-III
Guaranteed Power Consumption For Compressed Air System

NAME OF PROJECT:		(4 X 210 + 3 X 500 MW) KAHALGAON TPS				
NAME OF PACKAGE:		COMPRESSED AIR SYSTEM				
TECHNICAL SPECIFICATION:		PE-TS-481-555-A001				
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	Standby			
		A	B			
1	Air Compressors (Oil free Screw type) of capacity 15 NM3/min.	1	1		1.0	
2	HOC Air Dryer of capacity 15 NM3/min.	1	1		1.0	
					TOTAL	
Note :						
1	Estimated Power Consumption Figure for the compressed air system (For Working Drives Only) considered is 150.5 KW.					
2	Bidders Guaranteed power consumption at motor input terminal at rated duty of Air Compressor considering motor efficiency as confirmed by motor OEM including Air Drying Plant (Heater and Blowers, as applicable) 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 1,43,944 /- 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 or the GPC quoted by bidder, whichever is higher) on actual performance testing at the manufacturing works / site, penalty INR 1,43,944 /- per KW increase in power consumption figure shall be levied.					
Particulars of bidder / authorised representative						
Name	Designation	Signature	Date	Date	Company Seal	

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ANNEXURE-II DEVIATION SHEET (COST OF WITHDRAWAL)									
PROJECT:-						(4 X 210 + 3 X 500 MW) KAHALGAON TPS-FGD			
PACKAGE :-						COMPRESSED AIR SYSTEM			
TENDER ENQUIRY :-						Enquiry No-PE/PG/KAG/E-6639/2021 Dated 21.05.2021			
NAME OF THE BIDDER									
Sl. No.	Volume/Section	Page No.	Clause No.	Technical Specification/Tender Document No	Complete Description of Deviation	Cost of withdrawal of deviation to be entered by the bidder in	Reference of price Schedule of which Cost of Withdrawal of Deviation is applicable	Nature of cost of withdrawal of deviation (Positive/Negative)	Reasons for quoting deviation
1	TECHNICAL DEVIATION								
1.01									
1.02									
1.03									
1.04									
1.05									
1.06									
1.07									
1.08									
2	COMMERCIAL DEVIATION								
2.01									
2.02									
2.03									
2.04									
2.05									
2.06									
2.07									
2.08									

NOTES:

- Cost of Withdrawal of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
- All the bidders have to list out all their technical & commercial deviations (if any) in details in the above format.
- Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
- Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawal of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable. In absence of same, such deviation(s) shall not be considered and offer shall be considered in total compliance to NIT.
- Bidder shall furnish price copy of above format along with price bid.
- The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
- Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
- For deviations w.r.t. Credit Period, Liquidated damages, Firm prices if a bidder chooses not to give any cost of withdrawal of deviation loading as per Annexure-VII of GCC, Rev-07 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 withdrawal of deviation shall be taken as NIL.
- Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be accepted.
- 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.
- Cost of withdrawal is to be given separately for each deviation. In no event bidder should club cost of withdrawal of more than one deviation else cost of withdrawal of such deviations which have been clubbed together shall be considered as NIL.
- In case nature of cost of withdrawal (positive/negative) is not specified it shall be assumed as positive.
- In case of discrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.