



BHARAT HEAVY ELECTRICALS LIMITED
PROJECT ENGINEERING MANAGEMENT

PROJECT : 4 x 270 MW Bhadradri TPP
PACKAGE : VENTILATION SYSTEM
TENDER ENQUIRY NO.: PE/PG/MG1/E-5564/2017 dtd. 10.04.2017

DATE: - 01.05.2017

Corrigendum-01

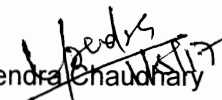
In reference to the above mentioned tender enquiry for Ventilation System package, there are following changes in tender enquiry:

1. Addendum-1 to the technical specification is enclosed herewith.
2. Due to the changes in specification, the BOQ has been revised. The revised price format (Rev01) is enclosed herewith. Bidders to submit their bids strictly as per revised price format.
3. Due date of tender submission is extended from 02.05.2017 (10:00 AM) to 11.05.2017 (3:30 PM). Accordingly, the bids (part-1) shall be opened on 11.05.2017 at 4:00 PM.
4. Bidders who have submitted their bids are also requested to submit the revised bid in line with addendum-1 and revised price format (Rev01).

All the other terms and conditions of the tender enquiry remain unchanged. All the bidders are requested to quote accordingly.

Bidders are requested to ensure submission of offer on or before due date.

Regards


Upendra Chaudhary
Dy. Mgr./ PG-II



**X O M B ADRADRI
VENTI ATION S STEM**

SPEC NO. PE-TS-411-554-A001_REV 01

ADDENDUM No. 1

DATE: 28.04.2017

SHEET 1 OF 2

4X270 MW BHADRADRI

ADDENDUM No. 1

(TECH SPEC No. PE-TS-411-554-A001 Rev 01)

VENTILATION SYSTEM



**X O M B ADRADRI
VENTI ATION S STEM**

SPEC NO. PE-TS-411-554-A001_REV 01

ADDENDUM No. 1

DATE: 28.04.2017

SHEET 2 OF 2

ADDENDUM No. 1 TO THE TECHNICAL SPECIFICATION PE-TS-411-554-A001 Rev 01

1. AMENDMENT TO EXISTING CLAUSES OF THE TECHNICAL SPECIFICATION

S.No	Section	Sub-section	CLAUSE	Existing Description	To Be Read As (Amendment)
1.	I	C1A	4.2	One (1) Nos. Sheet metal type Unitary Air Filtration system (UAF) having capacity of 75,000 CMH at 60 mmwc static pressure for ESP building shall be placed at roof of each ESP bldg. (stamp running page no. 14 of 394)	Two (2) Nos. Sheet metal type Unitary Air Filtration system (UAF) each of having capacity of 75,000 CMH at 60 mmwc static pressure for each ESP building and shall be placed at roof of ESP bldg.
2.	I	C1A	4.2 (I)	Electrical feeder forMotor rating of Centrifugal fan (75000 CMH / 60 mm WC SP) : 22.5 kW (stamp running page no. 15 of 394)	Motor rating of Centrifugal fan (75000 CMH / 60 mm WC SP) : 22 kW
3.	I	C1A	6.5 (c)	UAF Casing: M.S. 2mm thick (stamp running page no. 22 of 394)	UAF Casing: M.S. 3.15mm thick.
4.	I	C1A	7.1.3	Field instruments which are used for control Operation and monitoring of the system (applicable for single Air washer / UAF) shall be as under. • 1 no. Level Switch. • 2 nos. pressure switch. • 2 nos. motorized butterfly valve. • 1 no. differential pressure indicating switch. • 4 nos pressure gauge for Air washer / 3 nos pressure gauge for UAF (stamp running page no. 25 of 394)	For type and nos. of field instrument follow the P&ID of Air washer and P&ID of UAF provided in tender specification
5.	III	5		Suggestive price format (stamp running page no. 386 to 394)	Revised Suggestive price format Rev 01 shall be considered as attached enclosure.

SUGGESTED PRICE FORMAT		Doc No:	PE-PF-411-554-A001			
		Rev No:	1			
		Date of issue	28.04.2017			
NAME OF PROJECT:		4x270 MW BHADRADRI TPS				
NAME OF PACKAGE:		VENTILATION SYSTEM				
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01				
S. No.	DESCRIPTION	UNIT	QTY	AMOUNT (Ex-Works)		
1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part, Services part and 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 alongwith spares for erection, startup 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, preperation of layout drawings 3D (as applicable) 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	MAJOR BREAK-UP OF PRICES GIVEN IN 1.0 ABOVE.					
2.1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies 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 as required, forwarding, proper packing, shipment and delivery at site, preperation of layout drawings 3D (as applicable) 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 inclusive of all prevailing taxes, duties and other levies for Services part comprising of service part for 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. (Break-up as per Annexure-I)	Lot	1			
2.3	Total lumpsum firm price inclusive of all prevailing taxes, duties and other levies 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			

Note:

- 1.) Bidder to quote **Guaranteed Power Consumption for Ventillation System as per Annexure-III**
- 2.) PG to consider and suitably incorporate taxes, duties and other commercial aspects.

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

SUGGESTED PRICE FORMAT ANNEXURE - I PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)						Doc No:	PE-PF-411-554-A001
						Rev No:	1
						Date of issue	28.04.2017
NAME OF PROJECT:			4x270 MW BHADRADRI TPS				
NAME OF PACKAGE:			VENTILATION SYSTEM				
TECHNICAL SPECIFICATION No:			PE-TS-411-554-A001_Rev 01				
SL NO	DESCRIPTION	UNIT	Qty	SUPPLY	ERECTION AND COMMISSIONING		
				AMOUNT (Ex-Works)	AMOUNT (Ex-Works)		
1*	Sheet metal containarized type air washer unit with centrifugal fan (DIDW) with motor, pumps with motors, air washer internals, inlet air louvers, filters, piping as per IS:1239, Part-I (heavy class galvanised), valves, nozzles, back wash arrangement, galvanised drain piping, etc as per specification of capacity 1,30,000 CMH. Each air washer has 1 no centrifugal fan (1 x 100% duty) of capacity 1,30,000 CMH at min. 75 mm SP.	17	NO*				
2*	Unitary air filtration unit with centrifugal fan (SISW) with motor, pumps with motors, filters, UAF internals, piping as per IS: 1239 pt I (heavy class galvanised), valves for auto start of standby equipment, nozzles, back wash arrangement, galvanised drain piping etc. as per spec. (Fan capacity 75,000 CMH at 60 mmwc static pressure)	4	NO*				
3*	Supply air ducting (finished) for above area complete with dampers, grills (with VCD & without VCD), supports (painted) and all accessories as specified.						
3.1*	Finished GSS (zinc coating 180 gms/sq.m) Ducting with support structure etc.						
a)*	18 G	4950	SQM*				
b)*	20 G	7250	SQM*				
c)*	22 G	7500	SQM*				
d)*	24 G	5200	SQM*				
3.2*	MS Duct With Epoxy paint for battery room.	300	SQM*				
3.3*	MS Grilles with VCD	300	SQM*				
3.4*	MS Grilles without VCD	20	SQM*				
3.5*	Thermal insulation 25 mm expanded polystyrene finished with sand cement plaster as specified for supply air duct	3900	SQM*				
3.6*	Wall mounted dampers (gravity operated) for different areas.	70	SQM*				
3.7*	Inlet Louvres	70	SQM*				
3.8*	VOLUME CONTROL DAMPERS in GI construction as per specifications	25	SQM*				
4*	FIRE DAMPER						
a)*	Fire damper	35	SQM*				
b)*	Motorized Actuator with single phase power supply for the above Fire damper with auto resetting, limit switches, indication lamps etc	48	Nos*				
c)*	Fusible Link type Fire Damper	20	SQM*				
5*	Roof extractor units (axial flow type) with hood, disconnect switch and all accessories as specified. Following fan shall have 15 mmwc static pressure.						
a)*	Capacity 50,000 CMH with Motor rating 5.5 KW	32	Nos.*				
b)*	Capacity 40,000 CMH with Motor rating 5.5 KW	10	Nos.*				
c)*	Capacity 20,000 CMH with Motor rating 2.2 KW	28	Nos.*				
6*	Axial flow supply fans with pre and fine filter (wall mounted) complete with casing, TEFC sq cage induction motors & mounting frame, MS rain protection cowl, bird screen and all other accessories (suitable for 415V/3-phase supply). Following fan shall have 30 mmwc static pressure.						

PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)

Date of issue **28.04.2017**

NAME OF PROJECT:				4x270 MW BHADRADRI TPS			
NAME OF PACKAGE:				VENTILATION SYSTEM			
TECHNICAL SPECIFICATION No:				PE-TS-411-554-A001_Rev 01			
SL NO	DESCRIPTION	UNIT	Qty	SUPPLY	ERECTION AND COMMISSIONING		
				AMOUNT (Ex-Works)	AMOUNT (Ex-Works)		
a)*	Capacity 10,000 CMH with Motor rating 2.2 KW	10	Nos.*				
b)*	Capacity 7,500 CMH with Motor rating 1.5 KW	67	Nos.*				
c)*	Capacity 6,000 CMH with Motor rating 1.1 KW	20	Nos.*				
d)*	Capacity 4,000 CMH with Motor rating 0.75 KW	15	Nos.*				
7*	Axial flow supply fans with pre filter (wall mounted) complete with casing, TEFC sq cage induction motors & mounting frame, MS rain protection cowl, bird screen and all other accessories (suitable for 415V/3-phase supply) as specified. Following fan shall have 20 mmwc static pressure.						
a)*	Capacity 10,000 CMH with Motor rating 1.5 KW	76	Nos.*				
b)*	Capacity 7,500 CMH with Motor rating 1.1 KW	20	Nos.*				
c)*	Capacity 6,000 CMH with Motor rating 1.1 KW	8	Nos.*				
d)*	Capacity 4,000 CMH with Motor rating 0.75 KW	8	Nos.*				
8*	Axial flow exhaust fans (Bifurcated type, spark proof construction, wall mounted) complete with casing, flame proof motor & mounting frame, MS rain protection cowl, bird screen and all other accessories epoxy painted (suitable for 415V/3-phase supply) as specified. Following fan shall have 15 mmwc static pressure.						
a)*	Capacity 15,000 CMH with Motor rating 2.2 KW	5	Nos.*				
b)*	Capacity 10,000 CMH with Motor rating 1.5 KW	56	Nos.*				
c)*	Capacity 7,500 CMH with Motor rating 1.1 KW	8	Nos.*				
d)*	Capacity 4,000 CMH with Motor rating 0.55 KW	2	Nos.*				
e)*	Capacity 2,000 CMH with Motor rating 0.55 KW	9	Nos.*				
9*	Axial flow exhaust fans (Wall mounted) complete with casing, TEFC sq cage induction motor & mounting frame, MS rain protection cowl, bird screen and all other accessories epoxy painted (suitable for 415V/3-phase supply) as specified. Following fan shall have 10 mmwc static pressure.						
a)*	Capacity 15,000 CMH with Motor rating 1.1 KW	86	Nos.*				
b)*	Capacity 10,000 CMH with Motor rating 0.75 KW	42	Nos.*				
c)*	Capacity 7,500 CMH with Motor rating 0.55 KW	16	Nos.*				
d)*	Capacity 6,000 CMH with Motor rating 0.55 KW	35	Nos.*				
e)*	Capacity 4,000 CMH with Motor rating 0.55 KW	2	Nos.*				
f)*	Capacity 2,000 CMH with Motor rating 0.37 KW	14	Nos.*				
10*	Exhaust fan (propeller type) completes with induction motor & mounting frame MS rain protection cowl, bird screen and all other accessories as specified (suitable for 240V/ 1 phase). Following fan shall have 5 mmwc static pressure.						
a)*	Capacity 1200 CMH with Motor rating 100 watts	162	Nos.*				
11	Total lumpsum price for special tools & tackles for maintenance inclusive of packing forwarding, transportation up to site, etc. (Bidder shall submit item-wise price break-up-As per Appendix A).	1	LOT		NA		
12	Total lumpsum price for commissioning spares inclusive of packing forwarding, transportation up to site, etc. (Bidder shall submit item-wise price break-up-As per Appendix B).	1	LOT		NA		
13	FIELD INSTRUMENTS like pressure gauge, temperature gauge, pressure transmitters, differential pressure transmitter, flow transmitter etc and other instruments as required for Ventilation System.	1	LOT				
14	Any other item not indicated above, but required to make the system complete in all respects.	1	LOT				

NOTES

PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)

Date of issue **28.04.2017**

NAME OF PROJECT:		4x270 MW BHADRADRI TPS					
NAME OF PACKAGE:		VENTILATION SYSTEM					
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01					
SL NO	DESCRIPTION	UNIT	Qty	SUPPLY	ERECTION AND COMMISIONING		
				AMOUNT (Ex- Works)	AMOUNT (Ex- Works)		
1	The bidder shall furnish unit rates for variable item (marked *) for necessary adjustment (plus or minus) variation during detailed engg. stage. The unit rates quoted above shall be considered and no separate unit rates shall be quoted. Unit rates shall be valid throughout the contract.						
Particulars of bidder / authorised representative							
	Name	Designation	Signature	Date	Company Seal		

SUGGESTED PRICE FORMAT APPENDIX-A Special tools & tackles for maintenance	Doc No:	PE-PF-411-554-A001
	Rev No:	1
	Date of issue	28.04.2017

NAME OF PROJECT:	4x270 MW BHADRADRI TPS
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NAME OF PACKAGE:	VENTILATION SYSTEM
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TECHNICAL SPECIFICATION No:	PE-TS-411-554-A001_Rev 01
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SL NO	DESCRIPTION	UNIT	Qty	AMOUNT (Ex-Works)	
1	Measuring tape	NO	1		
2	Tachometer	NO	1		
3	Double ended spanner	SET	1		
4	Ring spanners	SET	1		
5	Gasket punch	NO.	1		
6	Center punch	NO.	1		
7	Hammer with wooden handles	NO.	1		
8	Scissors for sheet metal cutting	NO.	1		
9	Torch light (suitable for 2 cells)	NO.	1		
10	Multimeter	NO.	1		
11	Anemometer	NO.	1		
12	Compound pressure gauge	NO.	1		
13	Slide wrench 8"	NO.	1		
14	Slide wrench 10"	NO.	1		
15	Slide wrench 6"	NO.	1		
16	Box spanner set	SET	1		
17	Screw driver set	SET	1		
18	Align key set	SET	1		
19	MS tool box	NO	1		

NOTES					
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1	ABOVE IS THE MINIMUM LIST. ANY OTHER TOOL / TACKEL REQUIRED FOR THE SYSTEM SHALL ALSO BE PROVIDED BY THE VENDOR WITHOUT ANY COST IMPLICATION.				
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Particulars of bidder / authorised representative					
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	Name	Designation	Signature	Date	Company Seal

SUGGESTED PRICE FORMAT APPENDIX-B Commissioning spares				Doc No:	PE-PF-411-554-A001
				Rev No:	1
				Date of issue	28.04.2017
NAME OF PROJECT:		4x270 MW BHADRADRI TPS			
NAME OF PACKAGE:		VENTILATION SYSTEM			
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01			
SL NO	DESCRIPTION	UNIT	Qty	AMOUNT (Ex-Works)	
1	FAN BELTS	SET	1		
2	PRESSURE GAUGE	NO	1		
3	TEMPERATURE GAUGE	NO	1		
4	FILTER	SET	1		
NOTES					
1	ABOVE IS THE MINIMUM LIST. ANY OTHER COMMISSIONING SPARE REQUIRED FOR THE SYSTEM SHALL ALSO BE PROVIDED BY THE VENDOR WITHOUT ANY COST IMPLICATION.				
Particulars of bidder / authorised representative					
	Name	Designation	Signature	Date	Company Seal

SUGGESTED PRICE FORMAT ANNEXURE - II LIST OF MANDATORY SPARES		Doc No:	PE-PF-411-554-A001		
		Rev No:	1		
		Date of issue	28.04.2017		
NAME OF PROJECT:		4x270 MW BHADRADRI TPS			
NAME OF PACKAGE:		VENTILATION SYSTEM			
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01			
S. No.	Description	UNIT	Qty	AMOUNT (Ex-Works)	
1.0	VENTILATION SYSTEM				
1.1	Centrifugal fans				
1.1.1	Set of bearings for Air washer fans	1Set for each Type of Fan			
1.1.2	Set of bearings for U.A.F. fans	1Set for each Type of Fan			
1.2	Centrifugal pumps				
1.2.1	Set of bearings for Air washer pumps	1Set for each Type and rating of Pump			
1.2.2	Set of bearings for U.A.F. pumps	1Set for each Type and rating of Pump			
1.2.3	Mechanical seal / gland packing as applicable, shaft sleeve & casing wearing rings and lantern rings for shaft and impeller	1Set for each Type and rating of Pump			
1.2.4	Complete Impeller Assembly	1Set for each application and ratings of Pumps			
1.2.5	Key for impeller	1No. for each application and ratings of Pumps			
1.2.6	Pump shaft	1No. for each application and ratings of Pumps			
1.2.7	Coupling	1No. for each application and ratings of Pumps			
1.3	Spray Nozzles				
1.3.1	Spray nozzles for air washer unit	5%			
1.3.2	Spray nozzles for U.A.F. unit	5%			
1.4	SS Filters				
1.4.1	SS Filters for Air washer	10%			
1.4.2	SS Filter for Unitary air filtration unit	10%			
1.5	Basket for POT Strainer				
1.5.1	Strainer Basket for Air Washer	1No. for each type and size			
1.5.2	Strainer Basket for Unitary Air Filtration unit	1No. for each type and size			
1.6	Valves				
1.6.1	Gate valve for Air washer	10% or Minimum 1No. Whichever is higher			
1.6.2	NR Valve for Air Washer	10% or Minimum 1No. Whichever is higher			
1.6.3	Gate valve for Unitary Air Filtration Unit	10% or Minimum 1No. Whichever is higher			
1.6.4	NR valve for Unitary Air Filtration Unit	10% or Minimum 1No. Whichever is higher			
1.6.5	Gate Valve for Make-up Drain of Air washer	10% or Minimum 1No. Whichever is higher			
1.6.6	Gate valve for UAF	20% or Minimum 2Nos. Whichever is higher			
1.6.7	Other LP Piping valves & traps - Complete assembly	5% or min. 1 no. (whichever is more) for each size, type & rating for total population			

SUGGESTED PRICE FORMAT ANNEXURE - II LIST OF MANDATORY SPARES		Doc No:	PE-PF-411-554-A001		
		Rev No:	1		
		Date of issue	28.04.2017		
1.7	Wall mounted supply/ Exhaust fan				
1.7.1	Fan-motor Bearing	1 set for each rating of fan			
1.7.2	Vibration Isolators	1 set for each fan			
1.8	Electrical Spares for Motors				
1.8.1	Motor bearing set for Air washer fan motor	1 set for each type of fan motor			
1.8.2	Motor bearing set for UAF fan motor	1 set for each type of fan motor			
1.8.3	Motor bearing set for axial flow supply fan motor	1 set for each rating of fan motor			
1.8.4	Motor bearing set for axial flow exhaust fan motor	1 set for each rating of fan motor			
1.9	Mandatory Spares for Temperature Elements and Thermowells				
1.9.1	Thermocouple / RTD elements (10% of each type and length of elements , or a minimum of one number, whichever is more.)	2 Lot			
1.9.2	Thermowells for each type of temperature sensors (10% or a minimum of one for each type, whichever is more.)	2 Lot			
1.10	Mandatory Spares for Electronic Transmitters (for pressure, DP, Flow, level, Temperature) and Electrical Transducers.				
1.10.1	Transmitters and Electrical Transducers (10% of total number of offered for each model and type for the project or a minimum of one number, whichever is more)	2 Lot			
1.11	Mandatory spares for local gauges/switch (for Pressure, DP, Temperature, Flow, level , etc.)				
1.11.1	Local gauges/ Switch (for Pressure, DP, Temperature, Flow, level , etc.) (10% of total number of instruments offered for each model and type for the project or a minimum of one number, whichever is more.)	2 Lot			
NOTE					
1	Mandatory spares listed above is bare minimum requirement. In case any additional mandatory spares requirement is covered elsewhere in the tender specification apart from specified above, same shall be deemed to have been covered in bidders scope of supply.				
2	Unless stated otherwise, a "set" or "Lot" means items required for complete replacement in one equipment of each type / size / range.				
3	Wherever quantity has been specified as percentage (%), it shall mean percentage (%) of the population of the item required for one unit of 270 MW in the station (project), unless specified otherwise.				
4	In case of Bought Out items, itemised spares list may be vendor specific and may differ from the list of spares mentioned above. In such cases, The quoted price shall be considered for applicable items only without any change in the contract price.				
Particulars of bidder / authorised representative					
	Name	Designation	Signature	Date	Company Seal

SUGGESTED PRICE FORMAT ANNEXURE - III Guaranteed Power Consumption For Ventilation System					Doc No:		PE-PF-411-554-A001
					Rev No:		1
					Date of issue		28.04.2017
NAME OF PROJECT:		4x270 MW BHADRADRI TPS					
NAME OF PACKAGE:		VENTILATION SYSTEM					
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01					
S.NO.	DESCRIPTION OF EQUIPMENT	NO OF EQUIPMENT		TOTAL GUARANTEED POWER CONSUMPTION FOR EACH EQUIPMENT AT MOTOR INPUT TERMINAL AND CONTROL PANEL (IN KW)	DUTY FACTOR		TOTAL KW
		WORKING	STANDBY				
		3A	3B	4	5		6=3Ax4x5
1	VENTILATION SYSTEM FOR TG						
1.1	Centrifugal Fan of cap. 1,30,000 CMH at 75 mmwc static pr for air washers.	17	0		1		
1.2	Pumps for circulation of water in spray chamber of above air washer	17	17		1		
1.3	RE Units 50,000 cmh at 15mmwc	26	0		1		
1.4	Centrifugal Fan of cap. 75,000 CMH at 60 mmwc static pr for UAF.	4	0		1		
1.5	Pump for above UAF.	4	4		1		
				TOTAL (KW)			1140
Note:	Estimated power consumption (EPC) figure for the system (for working drives only) has been considered as 1140 KW. So long bidder's quoted guaranteed power consumption (GPC) above remains within this EPC, there will be no technical loading of bid on power consumption for evaluation. However, if bidder's quoted GPC exceeds EPC, there shall be technical loading of bid for evaluation @ Rs 2,52,000/- per KW of additional power over EPC. Bidder's guaranteed power consumption at motor input terminals (not shaft power) as furnished in relevant schedule shall be demonstrated by the successful bidder during performance testing at works/ site. In case power consumption is noted higher than EPC / bidder's quoted GPC whichever is higher, during inspection/ PG test, penalty @ Rs 2,52,000/- per KW shall be levied on vendor.						
Particulars of bidder / authorised representative							
	Name	Designation	Signature	DATE	Company Seal		

PRICE FORMAT Rev01 (For Indian Bidders)													
Enquiry Number		PE/PG/MG1/E-5564/2017											
NAME OF PROJECT:		4x270 MW BHADRADRI TPS											
NAME OF PACKAGE:		VENTILATION SYSTEM											
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_ Rev 01 and addendum 01											
S. No.	Description	UNIT	Qty	Price for Supply portion					Price for SERVICES portion			Grand TOTAL	
				Total ex-works price (INR)	ED including cess @...% (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 FOR site price SUPPLY (INR)	Total price for Services (INR)	Service Tax@ ... % (INR)	TOTAL PRICE (For Services including Service tax) (INR)		Total Price Supply FOR site and Services including service tax (INR)
				1	2	3	4	5=1+2+3+4	6	7	8=6+7		9=5+8
1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part, Services part and 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 alongwith spares for erection, startup 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, preperation of layout drawings 3D (as applicable) 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	MAJOR BREAK-UP OF PRICES GIVEN IN 1.0 ABOVE.												
2.1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies 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 as required, forwarding, proper packing, shipment and delivery at site, preperation of layout drawings 3D (as applicable) 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								NA		
2.2	Total lumpsum firm prices inclusive of all prevailing taxes, duties and other levies for Services part comprising of service part for 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. (Break-up as per Annexure-I)	Lot	1				NA						
2.3	Total lumpsum firm price inclusive of all prevailing taxes, duties and other levies 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								NA		
Note: 1. Bidder to quote Guaranteed Power Consumption for Ventilation System as per Annexure-III. 2. Evaluation shall be done one the basis of total lump sump prices for complete supply and services. Total price indicated above at Column (9) minus service tax quoted at Column (7) of 1.0 shall be considered for evaluation & hence must be completed in all respect for the full scope defined & considering all terms and conditions agreed. Further Swachh Bharat Cess i.e.0.5% of Service tax rate is not cenvatable. Hence, this 0.5% component of cess shall be considered for Evaluation. 3. Bidder to quote the Prices in ‘figures’ along with corresponding ‘words’.													
Particulars of bidder / authorised representative													
	Name	Designation		Signature		Date		Company Seal					

PRICE FORMAT Rev01 (Indian Vendors)
ANNEXURE - I
PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)

[illegible]

ANNEXURE - I
PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)

[illegible]

ANNEXURE - I
PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)

ENQUIRY NUMBER		PE/PG/MG1/E-5564/2017												
NAME OF PROJECT:		4x270 MW BHADRADRI TPS												
NAME OF PACKAGE:		VENTILATION SYSTEM												
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01 and addendum 01												
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	Qty	UNIT	PRICE FOR SUPPLY PORTION						PRICE FOR SERVICES PORTION			GRAND TOTAL	
				Unit Ex-works Price (Rs)	Total ex-works price (Rs)	ED including cess @...% (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 FOR site price SUPPLY (Rs)	Unit Price (Rs)	Total price (Rs)	Service Tax@ ... % (Rs)	TOTAL PRICE (Erection and commissioning including Service tax)	Total Price Supply FOR site and E&C including service tax (Rs)
8*	Axial flow exhaust fans (Bifurcated type, spark proof construction, wall mounted) complete with casing, flame proof motor & mounting frame, MS rain protection cowl, bird screen and all other accessories epoxy painted (suitable for 415V/3-phase supply) as specified. Following fan shall have 15 mmwc static pressure.													
a)*	Capacity 15,000 CMH with Motor rating 2.2 KW	5	Nos.*											
b)*	Capacity 10,000 CMH with Motor rating 1.5 KW	56	Nos.*											
c)*	Capacity 7,500 CMH with Motor rating 1.1 KW	8	Nos.*											
d)*	Capacity 4,000 CMH with Motor rating 0.55 KW	2	Nos.*											
e)*	Capacity 2,000 CMH with Motor rating 0.55 KW	9	Nos.*											
9*	Axial flow exhaust fans (Wall mounted) complete with casing, TEFC sq cage induction motor & mounting frame, MS rain protection cowl, bird screen and all other accessories epoxy painted (suitable for 415V/3-phase supply) as specified. Following fan shall have 10 mmwc static pressure.													
a)*	Capacity 15,000 CMH with Motor rating 1.1 KW	86	Nos.*											
b)*	Capacity 10,000 CMH with Motor rating 0.75 KW	42	Nos.*											
c)*	Capacity 7,500 CMH with Motor rating 0.55 KW	16	Nos.*											
d)*	Capacity 6,000 CMH with Motor rating 0.55 KW	35	Nos.*											
e)*	Capacity 4,000 CMH with Motor rating 0.55 KW	2	Nos.*											
f)*	Capacity 2,000 CMH with Motor rating 0.37 KW	14	Nos.*											
10*	Exhaust fan (propeller type) completes with induction motor & mounting frame MS rain protection cowl, bird screen and all other accessories as specified (suitable for 240V/ 1 phase). Following fan shall have 5 mmwc static pressure.													
a)*	Capacity 1200 CMH with Motor rating 100 watts	162	Nos.*											
11	Total lumpsum price for special tools & tackles for maintenance inclusive of packing forwarding, transportation up to site, etc. (Bidder shall submit item-wise price break-up-As per Appendix A).	1	LOT							NA				
12	Total lumpsum price for commissioning spares inclusive of packing forwarding, transportation up to site, etc. (Bidder shall submit item-wise price break-up-As per Appendix B).	1	LOT							NA				

ANNEXURE - I
PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)

ENQUIRY NUMBER		PE/PG/MG1/E-5564/2017												
NAME OF PROJECT:		4x270 MW BHADRADRI TPS												
NAME OF PACKAGE:		VENTILATION SYSTEM												
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01 and addendum 01												
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	Qty	UNIT	PRICE FOR SUPPLY PORTION					PRICE FOR SERVICES PORTION				GRAND TOTAL	
				Unit Ex-works Price (Rs)	Total ex-works price (Rs)	ED including cess @...% (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 FOR site price SUPPLY (Rs)	Unit Price (Rs)	Total price (Rs)	Service Tax@ ... % (Rs)		TOTAL PRICE (Erection and commissioning including Service tax)
13	FIELD INSTRUMENTS like pressure gauge, temperature gauge, pressure transmitters, differential pressure transmitter, flow transmitter etc and other instruments as required for Ventilation System.	1	LOT											
14	Any other item not indicated above, but required to make the system complete in all respects.	1	LOT											
NOTES														
1 The bidder shall furnish unit rates for variable item (marked *) for necessary adjustment (plus or minus) variation during detailed engg. stage. The unit rates quoted above shall be considered and no separate unit rates shall be quoted. Unit rates shall be valid throughout the contract.														
Particulars of bidder / authorised representative														
Name	Designation			Signature		Date		Company Seal						

PRICE FORMAT Rev01 (Indian Vendors)**APPENDIX-A****Special tools & tackles for maintenance**

ENQUIRY NO.:	PE/PG/MG1/E-5564/2017
NAME OF PROJECT:	4x270 MW BHADRADRI TPS
NAME OF PACKAGE:	VENTILATION SYSTEM
TECHNICAL SPECIFICATION No:	PE-TS-411-554-A001_Rev 01 and addendum 01

SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	Unit	Qty	SUPPLY	
				Unit Price (Rs)	Total price (Rs)
1	Measuring tape	NO	1		
2	Tachometer	NO	1		
3	Double ended spanner	SET	1		
4	Ring spanners	SET	1		
5	Gasket punch	NO.	1		
6	Center punch	NO.	1		
7	Hammer with wooden handles	NO.	1		
8	Scissors for sheet metal cutting	NO.	1		
9	Torch light (suitable for 2 cells)	NO.	1		
10	Multimeter	NO.	1		
11	Anemometer	NO.	1		
12	Compound pressure gauge	NO.	1		
13	Slide wrench 8"	NO.	1		
14	Slide wrench 10"	NO.	1		
15	Slide wrench 6"	NO.	1		
16	Box spanner set	SET	1		
17	Screw driver set	SET	1		
18	Align key set	SET	1		
19	MS tool box	NO	1		

NOTES

1	ABOVE IS THE MINIMUM LIST. ANY OTHER TOOL / TACKEL REQUIRED FOR THE SYSTEM SHALL ALSO BE PROVIDED BY THE VENDOR WITHOUT ANY COST IMPLICATION.
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Particulars of bidder / authorised representative

Name	Designation	Signature	DATE	Company Seal

PRICE FORMAT Rev01 (Indian Vendors)

APPENDIX-B

Commissioning spares

Enquiry No.		PE/PG/MG1/E-5564/2017			
NAME OF PROJECT:		4x270 MW BHADRADRI TPS			
NAME OF PACKAGE:		VENTILATION SYSTEM			
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01 and addendum 01			
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	Unit	Qty	SUPPLY	
				Unit Price (Rs)	Total price (Rs)
1	FAN BELTS	SET	1		
2	PRESSURE GAUGE	NO	1		
3	TEMPERATURE GAUGE	NO	1		
4	FILTER	SET	1		
NOTES					
1	ABOVE IS THE MINIMUM LIST. ANY OTHER COMMISSIONING SPARE REQUIRED FOR THE SYSTEM SHALL ALSO BE PROVIDED BY THE VENDOR WITHOUT ANY COST IMPLICATION.				
Particulars of bidder / authorised representative					
Name	Designation	Signature	DATE	Company Seal	

PRICE FORMAT Rev01 (Indian Vendors)									
ANNEXURE - II									
LIST OF MANDATORY SPARES									
ENQUIRY NUMBER			PE/PG/MG1/E-5564/2017						
NAME OF PROJECT:			4x270 MW BHADRADRI TPS						
NAME OF PACKAGE:			VENTILATION SYSTEM						
TECHNICAL SPECIFICATION No:			PE-TS-411-554-A001_Rev 01 and addendum 01						
S. No.	Description	Unit	QTY	PRICE FOR SUPPLY					
				Unit Ex-works Price (Rs)	Total ex-works price (Rs)	ED including cess @...% (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 FOR site price SUPPLY (Rs)
1.0	VENTILATION SYSTEM			1	2	3	4	5	6=2+3+4+5
1.1	Centrifugal fans								
1.1.1	Set of bearings for Air washer fans	1Set for each Type of Fan							
1.1.2	Set of bearings for U.A.F. fans	1Set for each Type of Fan							
1.2	Centrifugal pumps								
1.2.1	Set of bearings for Air washer pumps	1Set for each Type and rating of Pump							
1.2.2	Set of bearings for U.A.F. pumps	1Set for each Type and rating of Pump							
1.2.3	Mechanical seal / gland packing as applicable, shaft sleeve & casing wearing rings and lantern rings for shaft and impeller	1Set for each Type and rating of Pump							
1.2.4	Complete Impeller Assembly	1Set for each application and ratings of Pumps							
1.2.5	Key for impeller	1No. for each application and ratings of Pumps							
1.2.6	Pump shaft	1No. for each application and ratings of Pumps							
1.2.7	Coupling	1No. for each application and ratings of Pumps							
1.3	Spray Nozzles								
1.3.1	Spray nozzles for air washer unit	5%							
1.3.2	Spray nozzles for U.A.F. unit	5%							
1.4	SS Filters								
1.4.1	SS Filters for Air washer	10%							
1.4.2	SS Filter for Unitary air filtration unit	10%							
1.5	Basket for POT Strainer								
1.5.1	Strainer Basket for Air Washer	1No. for each type and size							
1.5.2	Strainer Basket for Unitary Air Filtration unit	1No. for each type and size							
1.6	Valves								
1.6.1	Gate valve for Air washer	10% or Minimum 1No. Whichever is higher							
1.6.2	NR Valve for Air Washer	10% or Minimum 1No. Whichever is higher							
1.6.3	Gate valve for Unitary Air Filtration Unit	10% or Minimum 1No. Whichever is higher							
1.6.4	NR valve for Unitary Air Filtration Unit	10% or Minimum 1No. Whichever is higher							
1.6.5	Gate Valve for Make-up Drain of Air washer	10% or Minimum 1No. Whichever is higher							
1.6.6	Gate valve for UAF	20% or Minimum 2Nos. Whichever is higher							
1.6.7	Other LP Piping valves & traps - Complete assembly	5% or min. 1 no. (whichever is more) for each size, type & rating for total population							
1.7	Wall mounted supply/ Exhaust fan								
1.7.1	Fan-motor Bearing	1 set for each rating of fan							
1.7.2	Vibration Isolators	1 set for each fan							
1.8	Electrical Spares for Motors								
1.8.1	Motor bearing set for Air washer fan motor	1 set for each type of fan motor							
1.8.2	Motor bearing set for UAF fan motor	1 set for each type of fan motor							
1.8.3	Motor bearing set for axial flow supply fan motor	1 set for each rating of fan motor							
1.8.4	Motor bearing set for axial flow exhaust fan motor	1 set for each rating of fan motor							
1.9	Mandatory Spares for Temperature Elements and Thermowells								
1.9.1	Thermocouple / RTD elements (10% of each type and length of elements , or a minimum of one number, whichever is more.)	2 Lot							

PRICE FORMAT Rev01 (Indian Vendors)									
ANNEXURE - II									
LIST OF MANDATORY SPARES									
1.9.2	Thermowells for each type of temperature sensors (10% or a minimum of one for each type, whichever is more.)	2 Lot							
1.10	Mandatory Spares for Electronic Transmitters (for pressure, DP, Flow, level, Temperature) and Electrical Transducers.								
1.10.1	Transmitters and Electrical Transducers (10% of total number of offered for each model and type for the project or a minimum of one number, whichever is more)	2 Lot							
1.11	Mandatory spares for local gauges/switch (for Pressure, DP, Temperature, Flow, level , etc.)								
1.11.1	Local gauges/ Switch (for Pressure, DP, Temperature, Flow, level , etc.) (10% of total number of instruments offered for each model and type for the project or a minimum of one number, whichever is more.)	2 Lot							
NOTE									
1 Mandatory spares listed above is bare minimum requirement. In case any additional mandatory spares requirement is covered elsewhere in the tender specification apart from specified above, same shall be deemed to have been covered in bidders scope of supply.									
2 Unless stated otherwise, a "Set" or "Lot" means items required for complete replacement in one equipment of each type / size / range.									
3 Wherever quantity has been specified as percentage (%), it shall mean percentage (%) of the population of the item required for one unit of 270 MW in the station (project), unless specified otherwise.									
4 In case of Bought Out items, itemised spares list may be vendor specific and may differ from the list of spares mentioned above. In such cases, The quoted price shall be considered for applicable items only without any change in the contract price.									
Particulars of bidder / authorised representative									
Name	Designation	Signature	Date						

PRICE FORMAT Rev01 (FOR INDIAN BIDDERS)
ANNEXURE - III

Guaranteed Power Consumption For Ventilation System

NAME OF PROJECT:		4x270 MW BHADRADRI TPS					
NAME OF PACKAGE:		VENTILATION SYSTEM					
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001 Rev 01 and addendum 01					
S.NO.	DESCRIPTION OF EQUIPMENT	NO OF EQUIPMENT		TOTAL GUARANTEED POWER CONSUMPTION FOR EACH EQUIPMENT AT MOTOR INPUT TERMINAL AND CONTROL PANEL (IN KW)	DUTY FACTOR		TOTAL KW
		WORKING	STANDBY				
		3A	3B	4	5		6=3Ax4x5
1	VENTILATION SYSTEM FOR TG BUILDING						
1.1	Centrifugal Fan of cap. 1,30,000 CMH at 75 mmwc static pr for air washers.	17	0		1		
1.2	Pumps for circulation of water in spray chamber of above air washer	17	17		1		
1.3	RE Units 50,000 cmh at 15mmwc	26	0		1		
1.4	Centrifugal Fan of cap. 75,000 CMH at 60 mmwc static pr for UAF.	4	0		1		
1.5	Pump for above UAF.	4	4		1		
				TOTAL (KW)			1140

Note: Estimated power consumption (EPC) figure for the system (for working drives only) has been considered as 1140 KW. So long bidder's quoted guaranteed power consumption (GPC) above remains within this EPC, there will be no technical loading of bid on power consumption for evaluation. However, if bidder's quoted GPC exceeds EPC, there shall be technical loading of bid for evaluation @ Rs 2,52,000/- per KW of additional power over EPC.

Bidder's guaranteed power consumption at motor input terminals (not shaft power) as furnished in relevant schedule shall be demonstrated by the successful bidder during performance testing at works/ site. In case power consumption is noted higher than EPC / bidder's quoted GPC whichever is higher, during inspection/ PG test, penalty @ Rs 2,52,000/- per KW shall be levied on vendor.

Particulars of bidder / authorised representative

Name	Designation	Signature	DATE	Company Seal

PRICE FORMAT Rev01 (For Foreign Bidders)																		
Enquiry Number		PE/PG/MG1/E-5564/2017																
NAME OF PROJECT:		4x270 MW BHADRADRI TPS																
NAME OF PACKAGE:		VENTILATION SYSTEM																
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01 and addendum 01																
				PRICE OF IMPORTED ITEMS (Supply not from Indian Territory)					PRICE OF INDIGENEOUS ITEMS (Supply from Indian Territory)					Total Price for SUPPLY Portion	PRICE FOR SERVICES			GRAND TOTAL
S. No.	Description	UNIT	Qty	TOTAL C&F Seaport Price	Ocean / Marine Insurance	Custom Duty after availing CENVAT benefit if applicable	Inland FREIGHT CHARGES (INCLUDING SERVICE TAX)	F.O.R. site Imported Items supply price	TOTAL EX-WORKS PRICE	ED including cess @...% (for self manufactured items only)	CST @% Against C-form & E1/E2 or VAT @.....% Whichever is applicable)	FREIGHT CHARGES (INCLUDING SERVICE TAX) @...% OF TOTAL EX-WORKS	TOTAL F.O.R SITE PRICE	Total FOR Site IMPORTED + INDIGENOUS SUPPLY	TOTAL SERVICES Charges	SERVICE TAX @ %	SERVICES charges (INCLUDING SERVICE TAX)	Total Lumpsum price for supply [IMPORTED + INDIGENEOUS SUPPLY] and SERVICES with Service tax.
				1	2	3	4	5=1+3+4	6	7	8	9	10=6+7+8+9	11=5+10	12	13	14=12+13	15=11+14
1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies for Supply part, Services part and 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 alongwith spares for erection, startup 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 3D (as applicable) 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	MAJOR BREAK-UP OF PRICES GIVEN IN 1.0 ABOVE.																	
2.1	Total lump sum firm price inclusive of all prevailing taxes, duties and other levies 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 as required, forwarding, proper packing, shipment and delivery at site, preparation of layout drawings 3D (as applicable) 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		By BHEL											NA		
2.2	Total lumpsum firm prices inclusive of all prevailing taxes, duties and other levies for Services part comprising of service part for 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. (Break-up as per Annexure-I)	Lot	1	NA							NA							
2.3	Total lumpsum firm price inclusive of all prevailing taxes, duties and other levies 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														NA	
Note: 1.) Bidder to quote Guaranteed Power Consumption for Ventillation System as per Annexure-III. 2. Evaluation shall be done one the basis of total lump sump prices for complete supply and services. Total price indicated above at Column (15) minus service tax quoted at Column (13) of 1.0 shall be considered for evaluation & hence must be completed in all respect for the full scope defined & considering all terms and conditions agreed. Further Swachh Bharat Cess i.e.0.5% of Service tax rate is not cenvatable. Hence, this 0.5% component of cess shall be considered for Evaluation. 3. Bidder to quote the Prices in 'figures' along with corresponding 'words'.																		
Particulars of bidder / authorised representative																		
	Name	Designation				Signature			Company Seal									

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PRICE BREAKUP (FOR MAIN PLANT, ESP AND OTHER AUX BUILDINGS)	
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PRICE FORMAT REV01 (For Foreign Bidders)**APPENDIX-A****Special tools & tackles for maintenance**

ENQUIRY NUMBER		PE/PG/MG1/E-5564/2017			
NAME OF PROJECT:		4x270 MW BHADRADRI TPS			
NAME OF PACKAGE:		VENTILATION SYSTEM			
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01 and addendum 01			
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	Unit	Qty	SUPPLY PRICE	
				Unit Price (Rs)	Total price (Rs)
1	Measuring tape	NO	1		
2	Tachometer	NO	1		
3	Double ended spanner	SET	1		
4	Ring spanners	SET	1		
5	Gasket punch	NO.	1		
6	Center punch	NO.	1		
7	Hammer with wooden handles	NO.	1		
8	Scissors for sheet metal cutting	NO.	1		
9	Torch light (suitable for 2 cells)	NO.	1		
10	Multimeter	NO.	1		
11	Anemometer	NO.	1		
12	Compound pressure gauge	NO.	1		
13	Slide wrench 8"	NO.	1		
14	Slide wrench 10"	NO.	1		
15	Slide wrench 6"	NO.	1		
16	Box spanner set	SET	1		
17	Screw driver set	SET	1		
18	Align key set	SET	1		
19	MS tool box	NO	1		
NOTES					
1	ABOVE IS THE MINIMUM LIST. ANY OTHER TOOL / TACKEL REQUIRED FOR THE SYSTEM SHALL ALSO BE PROVIDED BY THE VENDOR WITHOUT ANY COST IMPLICATION.				
Particulars of bidder / authorised representative					
Name	Designation	Signature	DATE	Company Seal	

PRICE FORMAT Rev01 (For Foreign Bidders)

APPENDIX-B

Commissioning spares

ENQUIRY NUMBER		PE/PG/MG1/E-5564/2017			
NAME OF PROJECT:		4x270 MW BHADRADRI TPS			
NAME OF PACKAGE:		VENTILATION SYSTEM			
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01 and addendum 01			
SL NO	DESCRIPTION OF EQUIPMENT/ ITEM	Unit	Qty	SUPPLY	
				Unit Price (Rs)	Total price (Rs)
1	FAN BELTS	SET	1		
2	PRESSURE GAUGE	NO	1		
3	TEMPERATURE GAUGE	NO	1		
4	FILTER	SET	1		
NOTES					
1	ABOVE IS THE MINIMUM LIST. ANY OTHER COMMISSIONING SPARE REQUIRED FOR THE SYSTEM SHALL ALSO BE PROVIDED BY THE VENDOR WITHOUT ANY COST IMPLICATION.				
Particulars of bidder / authorised representative					
Name	Designation	Signature	DATE	Company Seal	

PRICE FORMAT Rev01 (For Foreign Bidders) ANNEXURE - II
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LIST OF MANDATORY SPARES

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PRICE FORMAT Rev01 (For Foreign Bidders) ANNEXURE - II
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LIST OF MANDATORY SPARES	
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PRICE FORMAT Rev01 (For Foreign Bidders) ANNEXURE - II
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LIST OF MANDATORY SPARES	
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PRICE FORMAT Rev01(For Foreign Bidders)
ANNEXURE - III

Guaranteed Power Consumption For Ventilation System

ENQUIRY NUMBER:		PE/PG/MG1/E-5564/2017					
NAME OF PROJECT:		4x270 MW BHADRADRI TPS					
NAME OF PACKAGE:		VENTILATION SYSTEM					
TECHNICAL SPECIFICATION No:		PE-TS-411-554-A001_Rev 01 and addendum 01					
S.NO.	DESCRIPTION OF EQUIPMENT	NO OF EQUIPMENT		TOTAL GUARANTEED POWER CONSUMPTION FOR EACH EQUIPMENT AT MOTOR INPUT TERMINAL AND CONTROL PANEL (IN	DUTY FACTOR		TOTAL KW
		WORKIN G	STANDBY				
		3A	3B	4	5		6=3Ax4x5
1	VENTILATION SYSTEM FOR TG BUILDING						
1.1	Centrifugal Fan of cap. 1,30,000 CMH at 75 mmwc static pr for air washers.	17	0		1		
1.2	Pumps for circulation of water in spray chamber of above air washer	17	17		1		
1.3	RE Units 50,000 cmh at 15mmwc	26	0		1		
1.4	Centrifugal Fan of cap. 75,000 CMH at 60 mmwc static pr for UAF.	4	0		1		
1.5	Pump for above UAF.	4	4		1		
				TOTAL (KW)			1140

Note: Estimated power consumption (EPC) figure for the system (for working drives only) has been considered as 1140 KW. So long bidder's quoted guaranteed power consumption (GPC) above remains within this EPC, there will be no technical loading of bid on power consumption for evaluation. However, if bidder's quoted GPC exceeds EPC, there shall be technical loading of bid for evaluation @ Rs 2,52,000/- per KW of additional power over EPC.

Bidder's guaranteed power consumption at motor input terminals (not shaft power) as furnished in relevant schedule shall be demonstrated by the successful bidder during performance testing at works/ site. In case power consumption is noted higher than EPC / bidder's quoted GPC whichever is higher, during inspection/ PG test, penalty @ Rs 2,52,000/- per KW shall be levied on vendor.

Particulars of bidder / authorised representative

Name	Designation	Signature	DATE	Company Seal