



**BHARAT HEAVY ELECTRICALS LIMITED**  
**PROJECT ENGINEERING MANAGEMENT**

PROJECT : 1X800 MW TSGENCO KOTHAGUDAM TPP  
PACKAGE : VENTILATION SYSTEM

DATE: - 17.02.2016

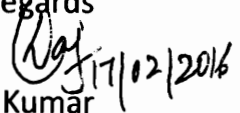
**Corrigenda/Addenda-3**

Reference: i) Corrigenda-01 dated 15.01.2016  
ii) Corrigenda-02 dated 05.02.2016

**Subject:** Bid submission date extension and unpriced price Schedule format –Rev. 02

1. Bid submission date against Tender Enquiry No. PE/PG/KG1/ E-5135/2015 dated 18.12.2015 is extended till **25.02.2016 (10.00 AM)**. The Techno-Commercial Bids shall be opened same day at **11.00 AM**.
2. Unpriced price Schedule format –Rev. 02 are enclosed herewith.

Bidders are requested to submit the revised offer (if applicable) before due date and time.

Regards  
  
Rajeev Kumar  
Sr. Engineer  
PG-II-2

1X800 MW KOTHAGUDEM TPS														
PACKAGE - VENTILATION SYSTEM														
BOQ-CUM-PRICE SCHEDULE - Rev 02														
Clause No.	DESCRIPTION	Qty.	Unit	SUPPLY					ERECTION AND COMMISSIONING				TOTAL	
				Unit Ex-works price (Rs)	Total Ex-works price (Rs)	ED (Inc. Cess) for self-manufactured items only @ ...% (Rs)	CST / VAT @...% (Rs)	Freight (including service tax, if applicable) @ ..... % of Quoted Total Ex-works (Rs)	TOTAL FOR site price (SUPPLY) (Rs)	Unit E & C Price (Rs)	Total E & C price (Rs)	Service tax on E&C @ _____% (including SBC (in Rs.))		TOTAL E & C Price (including Service tax and SBC) (In Rs.)
1.0	Total lumpsum firm prices for equipment & Services as specified, Comprising Engineering, design, manufacture, inspection & Testing at manufacturer's/subvendor's works, Painting at manufactures works, duly packed for transportation, delivery to site, unloading, storage & handling at site, fabrication, erection and commissioning, performance and guarantee testing, submission of as built drawing, carrying out acceptance tests at site, and final painting of complete Ventilation system on turnkey basis as per specification PE-TS-410-554-A001 including mandatory spares, special tool & tackels for maintenance, commissioning spares, all taxes, duties etc.													
2.0	Break up prices for items covered in clause 1.0 above. In case, price indicated above does not match with item wise break-up given at 2.0 (2.1 to 2.14.3), the highest price so calculated shall be considered for evaluation but in case of order, the same shall be placed at the lowest price.													
	<b>VENTILATION SYSTEM</b>													
2.1	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, level switch, temp indicators, back wash arrangement, galvanised drain piping, etc as per specification of capacity 2,80,000 CMH. Each air washer has 2 no centrifugal fan ( 2 x 50% duty) of capacity 1,40,000 CMH at min. 85 mm SP.	4	Nos											
2.2	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, level switch, pressure switches, Temp. indicators, back wash arrangement, galvanised drain piping etc. as per spec. (Fan capacity 90,000 CMH at 60 mmwc static pressure)	1	Nos											
2.3*	Supply air ducting (finished) for above area complete with dampers, grills (with VCD & without VCD), supports (painted) and all accessories as specified.													
2.3.1*	Finished GSS (zinc coating 180 gms/sq.m) Ducting with support structure etc.													
a)*	18 G	4500	SQM											
b)*	20 G	5000	SQM											
2.3.2*	MS Duct With Epoxy paint for battery room.	100	SQM											
2.3.3*	MS Grilles with VCD	100	SQM											
2.3.4*	MS Grilles without VCD	5	SQM											
2.3.5*	Thermal insulation 13 mm thick Aluminium foil faced closed cell elastomeric Nitrile Rubber as per specification	1000	SQM											
2.3.6*	Wall mounted dampers (gravity operated) for different areas.	25	SQM											
2.3.7*	Inlet Louvres	3	SQM											
2.3.8*	Volume control dampers	20	SQM											
2.4*	<b>FIRE DAMPER</b>													
a)*	Fire damper	20	SQM											
b)*	Motorized Actuator with single phase power supply for the above Fire damper with auto resetting, limit switches, indication lamps etc	40	Nos											
c)*	Fusible Link type Fire Damper	15	SQM											
2.5*	Roof extractor units (axial flow type) with hood, disconnect switch and all accessories as specified. <b>Following fan shall have 15 mmwc static pressure.</b>													
a)*	Capacity 50,000 CMH with Motor rating 5.5 KW	10	Nos.											
b)*	Capacity 40,000 CMH with Motor rating 5.5 KW	4	Nos.											
c)*	Capacity 20,000 CMH with Motor rating 2.2 KW	2	Nos.											
2.6*	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). <b>Following fan shall have 30 mmwc static pressure.</b>													
a)*	Capacity 10,000 CMH with Motor rating 2.2 KW	2	Nos.											
b)*	Capacity 7,500 CMH with Motor rating 1.5 KW	2	Nos.											
c)*	Capacity 6,000 CMH with Motor rating 1.1 KW	10	Nos.											
d)*	Capacity 4,000 CMH with Motor rating 0.75 KW	6	Nos.											

1X800 MW KOTHAGUDEM TPS

PACKAGE - VENTILATION SYSTEM

BOQ-CUM-PRICE SCHEDULE - Rev 02

Clause No.	DESCRIPTION	Qty.	Unit	SUPPLY						ERECTION AND COMMISSIONING				TOTAL
				Unit Ex-works price (Rs)	Total Ex-works price (Rs)	ED (Inc. Cess) for self-manufactured items only @ ...% (Rs)	CST / VAT @...% (Rs)	Freight (including service tax, if applicable) @ .... % of Quoted Total Ex-works (Rs)	TOTAL FOR site price (SUPPLY) (Rs)	Unit E & C Price (Rs)	Total E & C price (Rs)	Service tax on E&C @ _____% (including SBC (in Rs.))	TOTAL E & C Price (including Service tax and SBC) (In Rs.)	
2.7*	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). <b>Following fan shall have 20 mmwc static pressure.</b>													
	a)* Capacity 10,000 CMH with Motor rating 1.5 KW	22	Nos.											
	b)* Capacity 7,500 CMH with Motor rating 1.1 KW	10	Nos.											
	c)* Capacity 6,000 CMH with Motor rating 1.1 KW	2	Nos.											
	d)* Capacity 4,000 CMH with Motor rating 0.75 KW	2	Nos.											
2.8*	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). <b>Following fan shall have 15 mmwc static pressure.</b>													
	a)* Capacity 15,000 CMH with Motor rating 2.2 KW	4	Nos.											
	b)* Capacity 10,000 CMH with Motor rating 1.5 KW	2	Nos.											
	c)* Capacity 7,500 CMH with Motor rating 1.1 KW	4	Nos.											
	d)* Capacity 2,000 CMH with Motor rating 0.55 KW	2	Nos.											
2.9*	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. <b>Following fan shall have 10 mmwc static pressure.</b>													
	a)* Capacity 15,000 CMH with Motor rating 1.1 KW	2	Nos.											
	b)* Capacity 10,000 CMH with Motor rating 0.75 KW	5	Nos.											
	c)* Capacity 7,500 CMH with Motor rating 0.55 KW	2	Nos.											
	d)* Capacity 6,000 CMH with Motor rating 0.55 KW	30	Nos.											
	e)* Capacity 2,000 CMH with Motor rating 0.37 KW	6	Nos.											
2.10*	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). <b>Following fan shall have 5 mmwc static pressure.</b>													
	a)* Capacity 1200 CMH with Motor rating 100 watts	40	Nos.											
2.11	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).	1	LOT											
2.12	Total lumpsum price for commissioning spares inclusive of packing forwarding, transportation up to site, etc. (Bidder shall submit item-wise price break-up).	1	LOT											
2.13	<b>FIELD INSTRUMENTS</b> like pressure gauge, temperature gauge, pressure switch, differential pressure switch, flow switch and other instrument required for Ventilation System etc.	1	LOT											
2.14	Total lumpsum price for Mandatory Spare inclusive of packing forwarding, transportation up to site, etc. (Bidder to submit item-wise price break-up separately).	1	LOT											
2.14.1	Total lumpsum price for Mandatory Spare for ventilation system inclusive of packing forwarding, transportation up to site, etc. <b>as per ANNEXURE-II A OF TECHNICAL SPECIFICATION PE-TS-410-554-A001 for MECHANICAL ITEMS</b> (Bidder to submit item-wise price break-up separately).	1	LOT											
2.14.2	Total lumpsum price for Mandatory Spare for ventilation system inclusive of packing forwarding, transportation up to site, etc. <b>as per ANNEXURE-II B OF TECHNICAL SPECIFICATION PE-TS-410-554-A001 for C&amp;I ITEMS</b> (Bidder to submit item-wise price break-up separately).	1	LOT											
2.14.3	Total lumpsum price for Mandatory Spare for ventilation system inclusive of packing forwarding, transportation up to site, etc. <b>as per ANNEXURE-II C OF TECHNICAL SPECIFICATION PE-TS-410-554-A001 for ELECTRICAL ITEMS</b> (Bidder to submit item-wise price break-up separately).	1	LOT											

**Note:**

- The bidder shall furnish unit rates for variable item (marked \*) i.e., ducting, supply grilles (with and without VCD), fire damper, thermal insulation for ducting, gravity damper, MS Air-intake Louvers for Aux. Bldgs. only, RE Units, Axial Flow fans (Supply/Exhaust), Propellor Fans etc 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.
- 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. Extra sheet may be attached if the space provided is not sufficient
- Price format shall not be changed by the bidder
- Any other item not indicated above, but required to complete Ventilation package as per system requirements.
- For limitation on payment, percentages of individual items/equipments, as specified in the appendix-A shall be applicable
- Final qty. shall be paid as per actual measurement at site for Supply as well as E&C for ducting and insulation.