	BHARAT HEAVY ELECTRICALS LIMITED			Date:	
	Heavy Power Equipment Plant, Ramachandrapuram			Due Date:	
	Hyderabad-502 032, INDIA			Supplier Qtn No.	
	Phones: 040-23182661,			Date :	
	Fax Nos:				
	E-mail:shravanm@bhel.in				
	TENDER DOCUMENTS TO BE FILLED BY THE SUPPLIER FOR SUPPLY OF "HE&Fab Shop Exhaust system with 24"(Neck)X156 Nos Wind Roof Turbo Ventilators"				
ADDRESS OF THE SUPPLIER:					
TELEPHONE NOS:					
FAX NOS:					
E-MAIL ADDRESS					
Sl.No.	**Description of Equipment**		**Offered**	**Deviations**	**Remarks**
1.0	Supply , Erection and Commissioning of HE&Fab Shop Exhaust System with 24"X156 Nos. wind driven Roof Turbo Ventilators with FRP Base plate suitable to Existing profile of Blue colour Prepainted Galvalume Sheets in Heat Exchangers and Fabrication shop / 06- Block				
2.0	**PRE QUALIFICATION CRITERIA**				
2.1	PO copies indicating the supply of wind driven Turbo ventilators of 24"(Neck) or above				
2.2	Customer reference list along with contact phone no., where the similar items are installed successfully.				
2.3	Performance certificate from atleast one customer for similar item				
3.0	**Technical Details of each turbo ventilator**				
3.1	Neck Diameter = 24 " (Vendor to confirm)				
3.2	Belly diameter = Vendor to indicate				
3.3	Size of Translucent UV stabilized FRP Base plate = 1000 mm x 1000 mm X 1-1.5mm thick				
3.4	The size of the base plate and the profile shall match with the existing Galvalume roof sheet				
3.5	Opening at the bottom of the Base = 600-750 mm. (Approx.)				
3.6	Material of Impeller shaft = EN 24 / (Any Suitable alternative Vendor to indicate)				
3.7	Material of Top cap & Neck ring of Impeller = Stainless steel				
3.8	Material of Vanes = Hi Grade Aluminium				
3.9	Ventilator head top plate - 1.0MM Aluminium				
3.10	Aluminium variable angle neck 0.71MM suitable to counter upto 15 degree				
3.11	Vane or blade thickness = 0.5MM Aluminium				
3.12	No. of Vanes = Minimum 40 or Vendor to indicate				
3.13	Shaft MS plated of suitable diameter - (> = 17mm) Vendor to specify				
3.14	Top and bottom bearing - 6002ZZ (Vendor to confirm)				
3.15	Aluminium Variable angle Vari-pitch elbow to counter roof slope angle upto 15 degrees and				
3.16	Bearing Arrangement: 2 Nos, Top and Bottom, Precision permanently lubricated steel ball				
3.17	The bearing allignment must be perfect and stable to withstand very high wind loads,				
3.18	The complete construction shall be without welding.(Vendor to confirm)				
4.0	**Other Features**				
4.1	Turbo Ventilator shall work only on non consumable source of Energy (Wind Energy)				

4.2	The minimum wind speed at which it works shall be specified			
4.3	The ventilator (Fan) shall be statically and dynamically balanced .			
4.4	Entire System shall be coated with extra coat of PTFE / Teflon / Polyurethene.			
4.5	Basis for testing of Ventilation including Turbo Ventilators shall be mentioned			
4.6	Weight of the Ventilation system shall be specified.			
4.7	Type of Material of constructions including the grade shall be specified.			
4.8	Supplier shall indicate the reasons for choosing that material.			
4.9	Turbo Ventillotor shall be mounted on Translucent UV stablized FRP Base plate			
4.10	Colour of the FRP base shall be selected as such to improve the Day light of the work area			
4.11	The FRP base shall be designed in such a way that after installation, the turbo ventillator stands perpendicular to the ground level. Drawing for this may be submitted along with the offer. If not possible, vendor shall furnish proper justification of their design.			
4.12	The Ventillator shall be maintenance free.			
5.0	Vendor shall furnish Drawing of Turbo Ventillator along with Ventilation design parameters and the calculations for BHELs approval before manufacturing of Ventillator.			
5.1	Supplier shall furnish addresses of customers of Turbo Ventillators supplied by them along with contact persons name & address. Preference will be given to vendors who have supplied such equipments either to Government or Public Sector along with the offer.			
5.2	In case of Agents, recent Technical Catalogue / Literature from their Principals shall be furnished along with the offer.			
5.3	Supplier shall enclose the Data sheet of their quoted items showing CFM values at Different Elevation and Wind velocity. Vendor to specify.			
6.0	**Erection & Commissioning**			
6.1	Vendor is responsible for Erection & Commissioning of Turbo Ventillators at BHEL.The Offer shall include Erection and Commissioning charges separately.			
6.2	All Safety permissions and tools required for E&C is in the scope of Vendor. Vendor to confirm			
7.0	**General Requirements**			
7.1	The Technical bid and Price bid shall be submitted in separate sealed covers.			
7.2	The Vendor shall comply with all safety / statutory requirement existing at the time of placement of orders.			
7.3	BHEL reserves the right to Accept / Reject any offers without assigning any reason.			
7.4	The Turbo Ventilator along with FRP Base plate shall be guaranteed for satisfactory performance for atleast 2 years from the date of commissioning at BHEL.			
7.5	Three sets Operating Instructions & Maintenance manuals along with Test Certificate and			
7.6	Any Improvement to the above specification may be suggested by supplier. BHEL will study			