

20/11/16

**BHARAT HEAVY ELECTRICALS LIMITED, JHANSI**

Specification No.	9715/R1
Item No.	SP/CAN/9715
Location	Canteen
Quantity	ONE NUMBER

**DESIGN,SUPPLY, ERECTION , COMMISSIONING & PROVING OF BIOMASS GASIFIER**

**NOTE :**

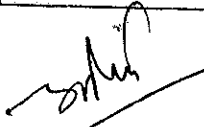
- 1.0 VENDOR must submit complete information against clause Na-11.0 (Qualifying Condition). The offer meeting this clause would only be processed
- 2.0 The " offered" Column and where applicable, the " Deviations" Column of this format shall be filled in by the Vender and submitted along with the offer. Technical details also submitted with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specification / requirements shall be treated as non - compliance.
- 3.0 The offer and all documents enclosed with offer should be in English language only.
- 4.0 Vendor can visit the site before submitting the offer.


**SPECIFICATION CUM COMPLIANCE CERTIFICATE OF BIOMASS GASIFIER**

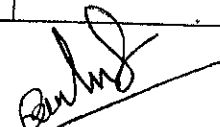
S.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION
<b>1.0</b>	<b>SCOPE</b>			
1.01	Design,Supply,Erection & Commissioning of Biomass Gasifier (40 kw)along with control panel & all its accessories with auxiliaries in ready to use condition For Thermal Application (Cooking). [Including suitable wood cutter (01 NO.),100 Mtr. pipe length & staves with burner (06 Na.)] Qty-01 No	VENDER TO CONFIRM		
<b>2.0</b>	<b>Biomass gasifier</b>			
2.01	Biomass gasifier should have hopper ,reactor, vibrator,Ash removal system of reactor,cyclan, gas washing with water ventury(scrabur) Qty.-01 No.	VENDER TO CONFIRM		
2.02	Capacity of gasifier- 40 kw (Min.)	VENDER TO CONFIRM		
2.03	Thermal Rating- 1,00,000 kilo cal./Hr. (Min.)	VENDER TO CONFIRM		
2.04	Make of gasifier	VENDER TO SPECIFY		
2.05	Model of gasifier	VENDER TO SPECIFY		
2.06	Gas flow meter in out put line	VENDER TO CONFIRM		
2.07	Fuel -- scrap waad,Saw dust , Paper & leaves	VENDER TO SPECIFY IN TERMS OF PERCENTAGE		
2.08	Max. Permissible Percentage of Moisture content in fuel	VENDER TO SPECIFY		
2.09	Fuel hooper capacity-- can store the fuel/wood for three Hrs. full load running (min)	VENDER TO CONFIRM		
2.10	Suitable fuel loading arrangement including ladder etc.	VENDER TO CONFIRM		
2.11	Reactors for combustion with vibrator at top and Ash removal system at bottom	VENDER TO CONFIRM		
2.12	Venturi , scrubber, cyclone, should be made up by SS only	VENDER TO CONFIRM		
2.13	Distance from gasifier to stove point 100 Mtr. (Max.) Distribution pipe with Suitable Dia & Pipe work in the scope of supplier.	VENDER TO CONFIRM		
2.14	Percentage of various gases available in out put of system	VENDER TO SPECIFY		
2.15	Make of different motors with power rating and function	VENDER TO SPECIFY		
2.16	Tech Detail / literature of gasifier	VENDER TO SUBMIT		
2.17	Fuel consumption at full load capacity( Kg.)	VENDER TO SPECIFY		
<b>3.0</b>	<b>Wood Cutter</b>			
3.01	Wood cutter Qty.-01 No.	VENDER TO CONFIRM		
3.02	Suitable to cut the available wooden piece as per requirement of gasifier ( vendor can visit the site)	VENDER TO CONFIRM		
3.03	Tech Detail / literature of wood cutter	VENDER TO CONFIRM		
<b>4.0</b>	<b>Stave (Complete Assembly With Burner)</b>			
4.01	Total Qty.-(02+02+02)06 No.	VENDER TO CONFIRM		
4.02	<b>FOR DEEP FRYING</b> Stoves suitable for karahi (capacity 100 ltr. oil for deep frying) --Qty-- 02 No.( vendor can visit the site)	VENDER TO CONFIRM		
4.03	<b>FOR CHAPATI MAKING STATION</b> A. Stove suitable for CHAPATI making Tava (Approx. Size 750 mm x 500 mm)-- Qty -- 02 Na. ( vendor can visit the site) B. Stave suitable for CHAPATI Griller (Approx. Size 500 mm x 500 mm) -- Qty 02 Na. ( vendor can visit the site)	VENDER TO CONFIRM		
<b>5.0</b>	<b>Erection &amp; Commissioning</b>			
5.01	Supplied Biomass Gasifier should be complete with all its accessories and auxiliaries including wood cutter,suitable stoves and control panel in ready to use condition and to be Erected & commissioned by supplies with his own labour and tools at canteen area of BHEL ,JHANSI	VENDER TO CONFIRM		

**SPECIFICATION CUM COMPLIANCE CERTIFICATE OF BIOMASS GASIFIER**

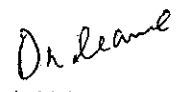
NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATION
<b>6.0</b>	<b>SAFETY / PROTECTION</b>			
6.01	The equipment shall be fully safe in operation with Necessary guards and protection covers are to be provided to protect the equipment.	VENDER TO CONFIRM		
6.02	Details of safety feature incorporated	VENDER TO SPECIFY		
<b>7.0</b>	<b>Guarantee</b>			
7.01	Guarantee for plant shall be for 24 months from the date of commissioning	VENDER TO CONFIRM		
<b>8.0</b>	<b>Packing:</b>			
8.01	All components shall be suitably packed so that the material reaches bhel without any damage/loss in transit.	VENDER TO CONFIRM		
<b>9.0</b>	<b>Miscellaneous :</b>			
9.01	Notwith standing the details in this specification, if any thing else is required for its functioning the same shall be specifically brought out and included in the offer	VENDER TO CONFIRM		
9.02	Electric supply 230/415 v a.c and water supply will be provided by BHEL at single point only	VENDER TO CONFIRM		
9.03	All civil work will be in the scope of BHEL JHANSI and carried out under the supervision of vendor's representative .How ever vendor shall provide installation/foundation drawing/ details of civil work.with in 15 day of issuing purched order.	VENDER TO CONFIRM		
9.04	Supplier can visit the site before submitting the offer	VENDER TO CONFIRM		
9.05	G.A Drawing/Lay Out with dimension of complete system including stove and wood cutter	VENDER TO SUBMIT		
9.06	BHEL person should be trairnd after commissiong of system at site for Min.one week.	VENDER TO CONFIRM		
9.07	The equipment is to be inspected & tested as per specification at supplier works bythe representative o M/s BHEL before dispatch..	VENDER TO CONFIRM		
9.08	Full capaecity of the plant to be prove at site by vendor for the final acceptance of plant.	VENDER TO CONFIRM		
<b>10.0</b>	<b>Documentation :</b>			
10.01	Operation & maintenance manual with details of all spares, brought out items and cosumables & drawing shall be provided in 03 set of hard copy at the time of supply	VENDER TO CONFIRM		
<b>11.0</b>	<b>Qualifying condition</b>			
11.01	To qualify for this tender, vendors shall submit the following detail and documents  A.The supplier should be the manufacturer or authorized representative of the manufacturer .Authorisation / Manufctorer certificate must be submitted with offer.  B.The supplier/ manufacturer should have installed/supplied atleast 02 No's Biomass gasifier in last 05 years with same or higher capacity (from the date of opening of tender). purchase order copy must be submitted with offer.  D. Performee certificate of 02 No. Biomass gasifiers running satisfactorly for minimum one year after commissioning & supplied in last 05 years as referred above.	VENDER TO SUBMIT		
<b>12.0</b>	Bhel reserves the right to verify information submitted by vender. In case the information is found to be false/ incorreet, the offer shall be rejected.	Vender to confirm		

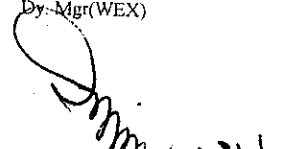
  
Amit Goel  
Sr. Engg.(WEX)

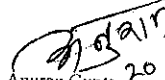
  
YK Dhingra  
Dy. Mgr(WEX)


  
S.K Bajpayee  
Mgr(WEX)

  
S.R. Ratnakar  
Mgr(CNT)

  
Inder Mathur  
D.G.M(WEX)

  
R.K. Gautam  
Sr.D.G.M(HR)

  
Anurag Gupta  
Sr.D.GM(PMS)

  
S.J. Chakaraborty  
A.G.M(WEX)