

Supply, Installation & Commissioning of a 10 kWe Biomass Gasifier system

1	Gasifier Type	Downdraft Gasifier
2	Capacity	10 kWe
3	Fuel consumption rate	20 kg/hr or less
4	Average Calorific Value (CV) of product gas	1000 Kcal/Nm ³ or more
5	Expected Gas composition	
	H ₂ (%)	15 - 18
	CO (%)	18 - 20
	CH ₄ (%)	1 - 3
6	Gasification efficiency (cold gas)	75% or more
7	Gas cleaning system	Gas cleaning system should consists of particulate filter, tar cleaning system and any other filters if required so that the product gas will be suitable for running a 100% producer gas based engine
8	Gas cooling system	Water cooling with recirculation of water
9	Temperature measurement	Reading for gasification temperature
10	Pumps, Motors, Gearbox and electrical components	Should be from reputed company with ISI mark
11	Power generation System	A 100 % producer gas based engine with power output of 10 kWe
12	Warranty	1 year from the date of installation
13	Scope of supply	Supply at CSIR-CMERI, Durgapur including Transportation, Freight, Insurance etc.
The supply of the downdraft gasifier based power generation system should be complete in all respect. Safety arrangement should be provided within the system. Frame, ladder, ducting plumbing and electrical connection should be done by the vendor.		
Installation & Commissioning should be done by the vendor		

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