



PRATHYUSHA ENGINEERING COLLEGE

CRITERIA-7

7.1 Institutional Values and Social Responsibilities

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

DETAILS OF BIOGAS



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BIO GAS PLANT

A **biogas plant** is where **biogas** is produced by fermenting biomass. . Biogas is produced when bacteria digest organic matter (biomass) in the absence of oxygen. This process is known as anaerobic digestion. It can be synthesis artificially by using digesters.

The kitchen waste collected from the PEC mess. Organic acid was converted to methane gas by using methanogenic bacteria. Un pressurized Biogas was produced in the Fixed dome plant. In order to increase the pressure of the methane gas, the gas holding capacity was reduced to 10% of the total quality.

Type of reactor	:	Fixed Dome type.
Total capacity of the tank	:	0.5m ³
Gas holding capacity	:	0.25m ³
Biogas composition	:	60% methane + 40 % Carbon-di-oxide
Calorific value	:	800 cal/gm
Seed substrate	:	Cow dung (100 kgs dissolved in 500 liters of water)





	Decimal	DMS	
	Latitude	13.092314	13°5'32" N
	Longitude	79.973174	79°58'23" E
2021-11-25(Thu) 02:28(pm)			



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