

Off grid RE Solutions for Energy Access



The cattle dung has enormous organic content & can be easily converted into biogas through the biomethanation process. This biogas can be used for power generation as well as for thermal application with by product of organic manure. To overcome the problem of frequent load shedding in rural areas & to get the continuous & cheaper energy access i.e. mainly for irrigation purpose, Shri. Surendra Sadashiv Girme, Village- Nangaon, Tal. Daund, Dist. Pune has installed KVIC water jacket type biogas plant. The generated power from biogas is utilised for lighting in animal shed, for irrigation & operating chaff cutter.

Project Components

- ✚ Slurry preparation tank
- ✚ Dung mixer - 1 no. 5 hp
- ✚ Floating dome biogas digester - 200 m³ in RCC (KVIC water jacket type)
- ✚ Manure handling section
- ✚ Biogas storage balloon - 1 no. 100 m³ in Neoprene Rubber with enclosure
- ✚ Biogas cleaning system - CO₂ & H₂S scrubbers, pressure vessel & vacuum pump.
- ✚ Power generation - 40 KVA/32 kW
(Applicable kW=24)
- ✚ Sludge pump - 3 hp

1.	Plant capacity	4 TPD based on cattle dung
2.	Type of plant	KVIC water jacket tank
3.	Biogas generation	200 m ³ /day
4.	Electricity generation	240 kWh/day
5.	Manure generation	Approx.400- 500 tons/annum
6.	Approx. revenue generated from electricity generation	` 4-5 lakhs/annum
7.	Total revenue generation from manure generation	` 4-5 lakhs/annum
8.	Total cost of the project	` 25 lakhs