

Muzaffarnagar's CBG plant produces more than 10 MT/day



The Compressed Biogas (CBG) Plant established by Indian Potash Limited (IPL) in Rohanakalan of Muzaffarnagar district in Uttar Pradesh, produces more than 10 metric tonnes of CBG per day that is supplied to the Indian Oil Corporation Limited (IOCL) at Rs.46 per kg. The process effectively takes care of feedstock press mud and recycled wastewater generated at the sugar mill and distillery unit also run by IPL.

This was reported by a team from the Department of Drinking Water and Sanitation (DDWS) that on 20th April 2022 visited Muzaffarnagar district to review the implementation of Swachh Bharat Mission Grameen (SBM-G) and also see the CBG Plant of IPL that is supported by Minister of Petroleum and Natural Gas (MoPNG) under Sustainable Alternative Towards Affordable Transportation (SATAT) Scheme.

The CBG plant has been set up beside the sugar mill and distillery unit also established by IPL on their own purchased land. Having commenced construction of the project in July 2020, the plant was commissioned in March 2021 and supply of CBG to IOCL started in May 2021.

Significantly, IPL has obtained Consent for Establishment (CTE) from the State Pollution Control Board (SPCB) under the green category and also the Petroleum and Explosives Safe Organisation (PESO) certificate for the plant that has been installed by PRAJ industries.



Plant specifications:

S.no	Particulars	Unit
1	Feedstock capacity	200 MT/ day
2	Plant Capacity (CBG)	10.2 MT/ day
3	Raw Biogas	26000 m ³ / day
4	Project Area	8.5 acres
5	Solid Bio fertilizer	40 MT/ day
6	Liquid Bio Fertilizer	150 MT/ day
7	Feedstock Type	Press mud from sugar mill
8	Estimated Cost (CAPEX)	Rs. 46.14 crores (Civil + Machinery cost)
9	Sale of CBG	@ Rs 46/ Kg sold to IOCL through cascades
10	Source of water	Recycled water from sugar mill 110 m ³ / day
11	Manpower	85 (both skilled and unskilled)

Plant operation:

The plant has been running at full capacity using feedstock press mud (waste from sugarcane) and recycled wastewater from the sugar mill situated close by. It receives 200 metric tonnes of press mud from sugar mill per day and produces around 10.2 tonnes of CBG per day.



The press mud is mixed with recycled waste water in the ratio of 1:3 and conveyed to the feeding tank through a conveyer belt. The retention time thereafter is 22 days. The slurry that is produced is separated into solid and liquid components. The liquid slurry is given to the farmers free of cost or reused in the digester. As for the solid portions, they are tested in their own lab that is situated in the same premises and then sun-dried and packed into 30-kg bags and sold through their own outlets under the brand name **‘IPL Kisan Mitra Gold, Fermented Organic Manure (FOM)’**.

The CBG that is produced is supplied to IOCL retail outlets at the rate of Rs.46 per kg through cascades. Plans are in the pipeline to install a solar power plant to take care of their power requirements. They are looking into selling the FOM to the government which can subsequently sell it to farmers.

