

Sustainable Alternative Towards Affordable Transportation (SATAT)

August 27, 2019

Source: Press Information Bureau

The SATAT initiative was launched by the Ministry for Petroleum and Natural Gas. The Sustainable Alternative Towards Affordable Transportation initiative was launched with PSU Oil Marketing Companies (OC, BPCL and HPCL).

Background

Bio-gas is produced naturally through a process of anaerobic decomposition from waste / bio-mass sources like agriculture residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc. After purification, it is compressed and called CBG, which has pure methane content of over 95%. Compressed Bio-Gas is exactly similar to the commercially available natural gas in its composition and energy potential. With calorific value (~52,000 KJ/kg) and other properties similar to CNG, Compressed Bio-Gas can be used as an alternative, renewable automotive fuel. Given the abundance of biomass in the country, Compressed Bio-Gas has the potential to replace CNG in automotive, industrial and commercial uses in the coming years

Aim

Providing sustainable alternative towards affordable transportation as a developmental effort that would benefit both vehicle-users as well as farmers and entrepreneurs.

Benefits of converting agricultural waste into Compressed biogas (CBG)

There are multiple benefits from converting agricultural residue, cattle dung and municipal solid waste into CBG on a commercial scale:

- Responsible waste management, reduction in carbon emissions and pollution
- Additional revenue source for farmers
- Boost to entrepreneurship, rural economy and employment
- Support to national commitments in achieving climate change goals
- Reduction in import of natural gas and crude oil
- Buffer against crude oil/gas price fluctuations

Significance of SATAT initiative

- This significant move has the potential to boost availability of more affordable transport fuels, better use of agricultural residue, cattle dung and municipal solid waste, as well as to provide an additional revenue source to farmers.
- This initiative holds great promise for efficient municipal solid waste management and in tackling the problem of polluted urban air due to farm stubble-burning and carbon emissions.

Key highlights

- Compressed Bio-Gas plants are proposed to be set up mainly through independent entrepreneurs. CBG produced at these plants will be transported through cascades of cylinders to the fuel station networks of OMCs for marketing as a green transport fuel alternative.
- The entrepreneurs would be able to separately market the other by-products from these plants, including bio-manure, carbon-dioxide, etc to enhance returns on investment.
- It is planned to roll out 5,000 Compressed Bio-Gas plants across India in a phased manner, with 250 plants

by the year 2020, 1,000 plants by 2022 and 5,000 plants by 2025

- Under this Compressed Bio-Gas networks can be integrated with city gas distribution (CGD) networks to boost supplies to domestic and retail users in existing and upcoming markets.
- Besides retailing from OMC fuel stations, Compressed Bio-Gas can at a later date be injected into CGD pipelines too for efficient distribution and optimised access of a cleaner and more affordable fuel.