Compressed Biogas or Electrical vehicles – Greener option for developing countries.

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Abstract:
We gratefully thank all ouKeywords: Compressed Biogas (CBG) , Electric vehicles, Waste to energy, Renewable Natural Gas (RNG).

I. Abstract Body (up to 250 words)

The Electrica vehicle (EV) market is booming, every sizable car maker are introducing new models in all range. For today, I am presenting my argument that for current scenario of power mix in India, Compressed Biogas - CBG (also called BioCNG or Renewable Natural Gas - RNG) operated vehicles are more ecofriendly than EV's.

While an EV do not emmit pollutant while running on the road, but the power it needs to charge batteries is derived from National Grid. As per Energy Statistics 2019 report from CENTRAL STATISTICS OFFICE, MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION, GOVERNMENT OF INDIA, Thermal Power plants contribute to ~65% of installed capacity. Further the Renewable Energy sources (RES) like wind and solar have utilization ratio of about 15-25%. Thus for each power unit generated, contribution of thermal power in nation grid is ~70%. In this scenarion, EV's though non polluting on roads, but use the energy sources which are dominated by highly polluting coal based thermal power plant.

On other hand CBG plants based on Organic fraction of MSW or food waste will supply a clean energy source that is neither polluting the city roads nor a distant power plant location. Such facilities indeed will take out oragnic fraction from dumping in to the land fill and put it for gain ful utilisation of CH4 that if unchecked will get released in to the atmosphere.

In a hypothetical scenarion of an MNC - Software service giant in Bengaluru city if incentivise it's employee's to use CBG run vehicle rather than facilitating EV charging points will improve it's green foot print. As contribution of RES improves in India's energy mix situation will change, but for current scenarion, I argue that a nudge to use CBG vehicle along with current enthusiasm and incentives for EV's will be a better bet for thermal power dependant countries.

Biography:

Sankalp Pathak has completed M.Sc. Microbiology from Shivaji University, Kolhapur. Currently working as GM-Operation as SLPP RENEW LLP. More than 12 years of experience in Biogas technology spanning around R&D, operations, plant design and business development.

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15th World Congress on Bioenergy & Biomass June 24-25, 2020 | Kuala Lumpur, Malaysia

Citation: Sankalp Pathak; Compressed Biogas or Electrical vehicles – Greener option for developing countries; Bioenergy & Biomass 2020; June 24-25, 2020 | Kuala Lumpur, Malaysia.