

DRIVES

From pakoras to mobility: How BIOD Energy is converting cooking oil into biodiesel!

India is a fast-growing economy, the need for energy is constantly on the rise. Considering that fossil fuel reserves are depleting along with their impact on the environment, India needs long-term solutions for renewable energy.

By: [Abhilasha Singh](#) | October 30, 2018 4:15 PM



Image for representational purposes (Photo: Reuters)

Bio D Energy, as the name suggests, is working to make bio-diesel more easily available in India so as to help curb rising pollution. But what's more interesting about Bio D is its approach to producing bio-diesel. The company plans to process used cooking oil into biodiesel. Bio D Energy has a plant in Bawal, Haryana, and the bio-diesel production will begin by end of this year. This is one of its kind facility in the northern part of the country. Express Drives recently got in a conversation with Shiva Vig, CEO and Founder BIOD Energy to find about the company's strategy in India for a carbon-free environment.

Shiva Vig explains that since India is a fast-growing economy, the need for energy is constantly on the rise. Considering that fossil fuel reserves are depleting along with their impact on the environment, India needs long-term solutions for renewable energy. He went on elaborate on the following subject matters:

1. What is the inspiration and idea behind Bio D? How is it different from the existing players in the market?

Core drivers for development and deployment of new and renewable energy in India have been energy security, electricity shortages, energy access, climate change etc. It won't be an exaggeration to say that India is running the most ambitious and largest renewable capacity expansion programmes in the world.

BIOD Energy is a responsible step towards our dream of a clean and green India. With the rapid increase in pollution levels and the need to reduce the dependence on crude oil, the

idea of floating BIOD Energy came in. The idea is to give the future generations, a cleaner, greener fuel and a carbon-free environment.

2. Compared to our closest competitor, China which has huge potential to recycle waste oil for bio-jet fuel production. Where do you see India, both in terms of production and usage?

If the government and shareholders take this rigorously, we can surely surpass China in the years to come. The new biofuel policy is in place to harness the potential and reduce the import dependency of crude oil to meet India's growing energy demand. The National Policy on Biofuels-2018 envisages a target of 20% blending of ethanol in petrol by 2030.

India's biofuel market is expected to grow manifold. Currently, diesel alone meets an estimated 72% of transportation fuel demand followed by petrol at 23% and the rest of the need gap is fulfilled by other fuels such as CNG, LPG etc. The overall blending percentage of biodiesel in diesel has been less than 0.5 per cent in the country due to constraints pertaining to feedstock availability. If collected and processed properly, used cooking oil has immense potential in realising green fuel use in the country.

3. FSSAI and Biodiesel Association of India have plans for effective management of used cooking oil to produce biodiesel. How efficiently is Bio D taking it forward?

BioD Energy is working shoulder to shoulder with the FSSAI and Biodiesel Association of India. We are an active member of both these organisations and a part of the RUCO campaign started by FSSAI. We began the collection of UCO in Delhi-NCR as a pilot project and within the last few months, we have moved forward in this project. The awareness among the masses has increased and as a result, today we are collecting from more than 700 kitchens through 400 odd contracts in Delhi-NCR alone. We have expanded to Punjab and Haryana with our collection points scattered in various cities.

4. Japanese believe "to conserve fuel is to serve mankind". How do you take this in Indian perspective with the increasing cost of fuel each day?

With the rapid change in development that India is going through, conserving fuel is a bigger challenge. What we at BioD Energy are trying to achieve is to provide mankind with a safe fuel, which will not only reduce our emissions but also provide a domestic security to meet our increasing fuel demands.

The new biofuel policy is in place to harness the potential and reduce the import dependency of crude oil to meet India's growing energy demand. Like I already mentioned the new National Policy on Biofuels-2018 envisages a great target of 20% blending of ethanol in petrol by 2030.

To protect the environment, the government's priority is to promote biofuel. Bio fuel is not only science but the mantra of the 21st century for energy security for India as well as for other countries across the world.

5. How ready do you feel is the Indian market or will be for the use of biodiesel? Will you be launching awareness campaigns for reaching out to maximum people?

The awareness campaign has already started with the FSSAI movement, and today people are more aware of the alternate fuels than they were 10 years back and this awareness is

growing multi-folds day by day. Once we begin with our biodiesel production, we will definitely hold roadshows, organise awareness campaigns so that people can start looking at the gains of converting UCO into biodiesel and hazards of using UCO at the same time.

With the new regulations for monitoring “used cooking oils” coming into force from July 1, the Food Safety and Standards Authority of India (FSSAI) will ensure the implementation of these regulations by imparting consumer education, enforcement as well as creation of an eco-system for collection of “used cooking oil” to produce biodiesel.

FSSAI and Indian Biodiesel Association are to establish a nation-wide eco-system for the collection of used cooking oil and its conversion to bio-diesel.

As per the new regulations, the maximum permissible limit of Total Polar Compound (TPC) in edible oil at 25 per cent. Repeated frying and usage of edible oil changes its physiochemical and nutrition properties and leads to the formation of TPC, which makes it unfit for human consumption.

Triple ‘E’ strategy is now being followed since July 1 which enforces and ensures ‘Educating both the consumers and food businesses about public health consequences of spoiled ‘used cooking oil’.

‘Enforcement’, particularly amongst large food processing plants, restaurants and fast-food joints that are frying food in large quantities. Developing an ‘Ecosystem’ for the collection of used cooking oil and producing biodiesel from it.

Government approves National Biofuel policy: Motorcycles running on bio-ethanol to launch soon

6. The government has decided to keep electric vehicles and automobiles running on alternative fuels out of the ambit of permit requirements in order to boost public interest in them. Do you see it as a mere gimmick and more needs to be done in terms of subsidy?

This is a very good step taken by the government in order to promote the use of alternate fuels. Though a lot still needs to be done as far as the policies are concerned. The fuel prices are on rising and to move towards an alternative source of fuel definitely makes sense. The infrastructure to mass-produce bio jet fuel, and to deliver it at airports, is awaited but the government is working on ways if how it could be used commercially.

Globally, there is a clear-cut trend to give a push to all renewable energy harnessing practices and techniques in the nascent stage. India also needs to look at the demand-supply gap and a lot of support is required from the government along with the industry players, to unleash the potential of biofuels, particularly biodiesel, given that it is low on investment and high on efficiency.

7. The government claims to be working on B3 - Biomass, Biofuel, Bioenergy, but with the recently hiked prices of ethanol by 25 per cent to Rs 59.13 per litre, will the biofuel policy work?

Of course, this is a great sign and great move forward, because now the farmers are motivated to sell the raw material towards ethanol as a fuel as compared to ethanol as an alcohol because the latter gave them better margins. Hence, the increase in price is a positive sign for the industry and will definitely impact the production levels of ethanol.

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8. Let's talk about economic and political barriers in the process

Raw material sourcing for biofuels is the biggest challenge but post the release of biofuel policy 2018, the government along with various organisations like Ministry of Petroleum and Natural Gas (MoPNG), Food Safety and Standards Authority of India (FSSAI) and the Biodiesel Association of India (of which BIOD ENERGY INDIA is an active member) have started actively working in the area.

A recently concluded workshop at FSSAI office in New Delhi laid down the foundation for a more robust collection system in India. These workshops are being held all over the country, with Ahmadabad and Mumbai hosting them in September and October respectively.

Proper system planning and integration is another challenge given the topographical and climate diversity of India. Social acceptance of renewable-based energy system is still not very encouraging in urban India as the awareness level is quite low.

To talk specifically about biofuel and its benefits, the concept is low on awareness. In terms of processing it with the collection of used cooking oil and agro products, our country lacks adequate infrastructure to harness its potential. Looking at the whole scenario positively, it gives many a chance to make a good business in this field for a good cause.

Politically a lot of the barriers have been removed by the Modi Government, and have made BioDiesel a viable option in the last few years. It's important for the government and all stakeholders to aggressively work together, in order to cut dependency on import of crude oil and bring about a considerable amount of savings in greenhouse gas emissions.