

Praj offers solutions for bio-diesel segment

Our Bureau

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With the global consumption of diesel matching that of petrol, the recent announcement by Praj Industries offering solutions for the bio-diesel segment was waiting to happen. Also, as more countries mandate bio fuel use targets, there is a growing need to find non traditional sources for bio fuels, given the sensitivities involved in the food versus fuel debate.

"This completes our business line so that we become a bio fuel expert, especially since customers are becoming common, particularly in Europe. In India, the consumption of diesel is five times higher than that of petrol, since all heavy commercial vehicles and all stationary engines run on diesel. Also, the trend even in the passenger car segment is to go for diesel," Pramod Chaudhuri, chairman, Praj Industries, said.

The challenge, Nitin Shete, vice-president, technology development, Praj, explained, is to bring down feed stock costs, since these account for 87% of the cost. Hence, the focus is to improve yield, with a small increase in yield bringing

down costs substantially.

"We are looking at increasing yields by 3.5 to 6 per cent, which brings down cost of production by 5 to 7 %. We are targeting different regions with different feed stocks so that we are geared for customised solutions," Mr Shete said.

He added the effort is also to widen the feed stock that can be used for bio fuels, given the global sensitivity over the food versus fuel debate. Among the non-food sources that Praj is working are algae which are reared in captivity and cellulosic ethanol. This has the advantage using agricultural waste like switchgrass, bagasse, straw, wood chips, etc and Praj claims it is close to commercialising the cellulose to ethanol production process.

Ethanol is used as a bio fuel to blend with petrol and in India the percentage is 10%. Bio diesel can also be used by itself, a programme successfully undertaken by DaimlerChrysler India on its Mercedes cars which did not require major changes to the engine. In some countries, bio diesel is blended with diesel.

Mr Shete added that after the success of palm oil in Malaysia, other South East Asian countries have

taken up palm oil cultivation. Among the edible oils, canola, soya bean and rapeseed lend themselves to the making of bio diesel while used oils which are available at competitive prices and tallow (animal fat) are some of the others.

"We have developed an engineering package which allows for a plant to use all feedstock with separate pre-treatment," Mr Shete said. He pointed out that each region has a different feedstock for its bio fuel programme, so that the US programme is corn-based, Europe is wheat based, Thailand has a cassava based programme while Argentina has adopted corn or grain based programme.

Praj's efforts at positioning itself as a 'green' company has meant that its new, Rs 40 crore Research and Development centre, located on a four-and-a-half acre plot at Pirangut, will have a host of eco friendly features. Additionally, it will have various pilot projects running for bio fuels, taking a project to a proof of concept stage.

"The bio diesel produced in the pilot project will run the generator sets, while we will use natural sunlight and solar energy to the maximum," Mr Chaudhuri said.