

More Brazilian Drivers Turn to Ethanol

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By TODD BENSON

SÃO PAULO, Brazil, Oct. 19 - When Brazil's state-owned oil company announced this month that it was raising gasoline prices to keep up with the rising cost of crude oil, Gutemberg do Brasil Moreira barely blinked.

Mr. Moreira is an oral surgeon who spends a good portion of his days battling traffic going to hospitals all over this sprawling metropolis. He drives a car that runs on either gasoline or ethanol, or any combination of the two. But with ethanol - or alcohol, as most Brazilians call it - selling at half the price of gasoline at the pump, Mr. Moreira does not waste any time deciding which fuel to use when filling up his three-month-old Volkswagen Fox.

"When I first bought the car, I tried it out on both gasoline and alcohol," he said. "But now I only use alcohol, and I'm probably spending 40 percent less a month on fuel because of it. It just doesn't make any sense to use gasoline if the car runs just as well on alcohol."

Like Mr. Moreira, hundreds of thousands of Brazilians are skirting the high cost of gasoline by driving these new "flex-fuel" cars, which hit showroom floors late last year and have been selling fast ever since. Lured by the low price of ethanol, Brazilians bought almost 220,000 of these hybrid vehicles in the first nine months of the year, representing 24 percent of all new-car sales in the country. Some analysts and auto industry executives predict that number could jump to as high as 40 percent by early next year, and that eventually Brazil's auto market will be dominated by flex-fuel vehicles.

"In a few years, I wouldn't be surprised if all new cars in Brazil were equipped with flex-fuel engines," said João Alvarez, the top engineering executive for Volkswagen's Brazilian unit. "Demand is only going to increase, especially if oil and gasoline prices keep rising, and it's already clear that consumers like the product."

The German automaker was the first in Brazil to roll out a flex-fuel engine, introducing the TotalFlex Gol subcompact model in March of last year. Fiat of Italy and the American auto giants General Motors and Ford Motor have all since followed suit, although Volkswagen still holds the biggest share of the flex-fuel market, with 36.5 percent of total sales. The French carmakers Renault and Peugeot are also expected to bring out flex-fuel models for the Brazilian market before the end of the year.

"If you want to compete in this market, you're going to have to offer flex-fuel engines," said Joel Leite, who owns a Web site called Autoinforme that analyzes Brazil's auto sector. "Otherwise you're going to get left behind."

Brazil first started toying with the idea of nongasoline-powered cars at the peak of the

global oil crisis in the 1970's, when its military dictatorship began a campaign to reduce dependence on costly foreign oil. With the help of government subsidies and generous tax breaks, automakers here designed and started manufacturing cars that ran exclusively on ethanol. Sugar millers also benefited from the pro-alcohol campaign, getting the equivalent of millions of dollars in government subsidies to refine sugar cane into ethanol. The government no longer offers the subsidies, but demand serves as an incentive to keep making ethanol.

By the mid-1980's, ethanol-only cars accounted for almost 90 percent of all new-auto sales in Brazil, making the country the biggest alternative fuel market in the world. But a poor cane harvest and high sugar prices led to an ethanol shortage in 1990, enraging motorists who eventually migrated back to cars powered by gasoline. Today, fewer than 20 percent of Brazil's autos run exclusively on alcohol, but all gasoline here has a 25 percent mix of ethanol.

Now, thanks to the emergence of flex-fuel engines, ethanol is making a comeback. According to Datagro, a São Paulo consulting firm that tracks the sugar and alcohol markets, overall ethanol consumption in Brazil is expected to rise by 4.08 million gallons, to 3.58 billion gallons, this sugar harvest season, because of additional demand from flex-fuel autos. Moreover, these hybrid cars consume more than twice the amount of ethanol as alcohol-only vehicles, giving refinery owners an added incentive to keep producing fuel as well as sugar.

"The ethanol market here in Brazil was practically stagnant for more than a decade," said Plínio Nastari, Datagro's president. "Flex-fuel cars are changing that," he said, adding that the risk of another shortage was unlikely because the country now keeps a strategic ethanol stock for the off-season, when sugar is not harvested.

Another thing that sets flex-fuel autos apart from their ethanol-only predecessors, which are notoriously slow to warm up on cold days, is a small gas tank under the hood that is used to start the car in chilly weather. Once the engine is running, the car automatically switches back to ethanol or whatever is in the main tank. On the road, most flex-fuel cars perform equally on ethanol or gasoline, but some, like the Ford Fiesta, have turned out to get slightly more horsepower when running on alcohol.

"It's not like you're using a source of energy that's worse in terms of performance," said Luis Salem, general marketing manager in Brazil for Ford, which started selling flex-fuel versions of its Fiesta Sedan and Fiesta Hatchback models in September. "Actually, it's better."

With oil prices hitting record highs of late, other countries are already expressing interest in importing the flex-fuel technology from Brazil. Volkswagen, for example, has already been host to delegations from Australia, Britain, China, India, Japan, South Africa and the United States.

"Everyone is interested in this technology," said Mr. Alvarez, the Volkswagen executive.

Even so, experts say it will probably take years - if not decades - before flex-fuel cars become as popular in other nations as they are in Brazil. After all, few countries

have an ethanol fuel industry and distribution system as advanced as Brazil's.

A fuel mix of 85 percent ethanol and 15 percent gasoline, known as E85, is available in at least 22 states of the United States, mainly Minnesota and Midwestern states, but it is still hard to find at the pump in most other parts of the country. By contrast, in Brazil, a country nearly the size of the continental United States, ethanol is available at almost every service station.

"It may take a while, but there's no doubt that flex-fuel technology will eventually be used in other countries," said Mr. Leite, the auto sector analyst. "It's too good an idea not to be exported."

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