



e² energy “Growing Energy”

Background Essay

During the oil crisis of the 1970s, Brazil recognized the vulnerability of its economy, because of its dependence on foreign energy sources. Since that time the country has implemented an ethanol industry that is thriving on all levels, from production, to distribution at gas stations, to nationwide adoption of flex-fuel cars.

Changing the entire automobile industry wasn't easy, but through consistent policies and a dedication to building an infrastructure, Brazil was able to emerge as an energy independent country with a thriving flex-fuel automotive industry. Because of Brazil's tropical climate, large expanses of land, and an already established sugar-cane industry, it was able to use sugar cane to produce ethanol fuel without creating a shortage of sugar cane for other uses. In the early eighties, the public was buying ethanol cars, gas stations were providing ethanol fuel, and the industry seemed to be responding well to the country's energy needs. But in the late eighties the ethanol industry nearly perished when oil prices dropped significantly, leaving owners of ethanol cars with higher fuel prices and no choice but to pay them. Ethanol fuel production dropped, resulting in shortages and forcing consumers to think twice before buying ethanol cars. However, Brazil's policies, ranging from tax incentives to mandates for government vehicles, continued to encourage the establishment of a vibrant ethanol industry and the market responded.

Recognizing that consumers didn't want to be limited to one fuel choice when they purchased a car, Volkswagen was the first company to introduce a flex fuel car that would run on gasoline or ethanol. After the introduction of flex fuel cars, consumers felt more comfortable purchasing new cars, and the ethanol industry was given a second chance. According to Newsweek, as of July of 2007, flex fuel cars make up more than 80% of new car sales in Brazil.

Strong federal policies, infrastructure, manufacturing, and consumer acceptance were the keys to longevity that led to the remarkable success of Brazil's ethanol industry. What can the United States learn from this model?

For more information about Flexible Fuel Vehicles, visit www.fueleconomy.gov/feg/flextech.shtml



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PRE-VIEWING QUESTIONS

1. What do you know about ethanol? Where does it come from and what is it used for?
 2. Where does most of the oil that we use in the United States come from? What problems do we currently face due to our society’s dependence on oil?
 3. Why do you think farmers in the United States are sometimes paid to not grow on their land?
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POST-VIEWING QUESTIONS

1. Should the United States consider pursuing ethanol as a fuel for cars? Why or why not?
2. Describe the difference between ethanol made from corn and ethanol made from cellulosic sources. Is one preferable to the other? Why or why not?
3. Even though the United States doesn’t have the climate to duplicate how Brazil created ethanol, can the United States gain knowledge from the success that Brazil has had with ethanol?