

# ETHANOL

Prospectus for a Study of  
World Markets for  
**FUEL ETHANOL**  
*A Multi-Client Study*



Prepared By:



**JIM JORDAN & ASSOCIATES**

## WORLD MARKETS FOR FUEL ETHANOL

### A Multi-Client Study

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**JIM JORDAN & ASSOCIATES, LLP**

**Fuel Ethanol** is an increasingly important component of the World's transportation fuel supply. It consists of ethyl alcohol dehydrated to remove the 5% of eutectic water remaining after normal distillation. Made from corn, sugar and in some instances other biological feeds, it is blended into gasoline in varying amounts, most typically at 10% by volume. As a blending stock, its advantages include a high octane number, and absence of sulfur or aromatic compounds such as benzene or toluene. Its production was started in the United States as an indigenous material to alleviate supply problems resulting from the Arab oil embargos of the 1970's. Its oxygen content gave it clean-burning advantages in the early years of the Reformulated Gasoline Program under the Clean Air Act Amendments of 1990.

Under an increasingly tight gasoline supply and demand situation across the World, with demand growing significantly in the US and in other leading countries, and with static refining capacity in most areas, fuel ethanol offers a means of energy production from renewable sources. This has both practical and especially political attractiveness. The World will produce about 8.5 billion gallons of ethanol in 2005. This is expected to double by 2010. In the USA, about four billion gallons are produced, representing about 2.7% of the total gasoline pool.

The United States has recently enacted a new Energy Bill, which mandates that fuel ethanol consumption be doubled by the year 2012. Elsewhere, governments in countries such as Thailand, India and Australia and numerous European countries are encouraging increased use of this fuel.

The Fuels Group at Jim Jordan & Associates has been following the growth and application of ethanol in gasoline for some years, reporting on developments in its weekly newsletter to its clients. We have established a detailed data base of production facilities in the United States in particular. We have also developed a highly detailed understanding of the logistics of gasoline production and distribution, and the factors which must be addressed in alcohol blending and maintenance of water-free supply chains.

In the United States, the ethanol industry has already built plants in anticipation of the governmental mandates, and many more new plants have been planned.

As matters now stand, we have a law which requires increased consumption of ethanol, but which gives no clear guidance on how this will be accomplished, since ethanol is blended into gasoline primarily at local blenders' plants. These unquestionably exist by the thousands, and government data suggest that a good proportion is presently blended in facilities which do not report their activities to the Government. Unless carefully planned and monitored, the mandate may not be achieved, (much as the earlier California mandate for electric automobiles fell by the wayside).

This Study has been designed to provide background information and useful market observations to participants in the Industry, in Gasoline production and distribution and to Government personnel involved in guiding the use of ethanol. In this Study, we have assembled a highly detailed picture of the ethanol industry, by plant and by location. We have related this to an equally detailed description of the gasoline supply chains. This is presented in detail with descriptive material to give the reader a clear understanding of the problems and opportunities facing the industry. This reinforces the concern that a workable solution may not be easily obtained, but provides the reader with several approaches which could be workable. In particular, these include the need for regulatory negotiations on the ethanol mandate.

Ethanol use is growing elsewhere in the World, driven by many of the same factors. The Study discusses each market separately with emphasis on the economic and political factors involved.

The Study also contains Appendices giving data on the cost of production of ethanol, and its relationship to prices of feeds and products. The pertinent portions of the New US Energy Act are also appended.

A Table of Contents is shown below. The study will be sold for \$3250. JJ&A Fuels clients will receive a 10% discount.

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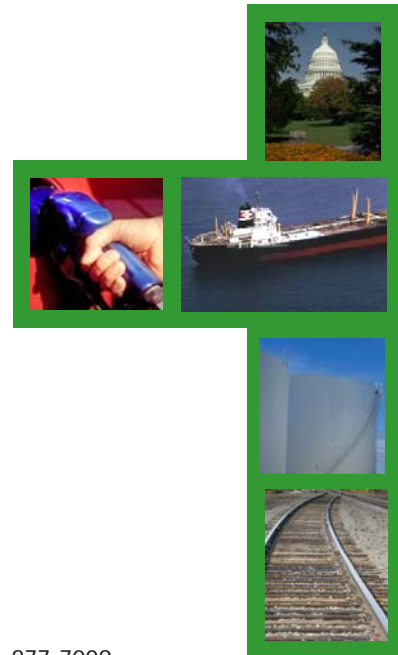
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*JJ&A Multi-Client Study:*  
**World Markets for Fuel Ethanol**

- It is anticipated that the Study will be about ninety pages long.
- It will include maps, charts and graphs as appropriate.
- We intend to make it available to subscribers in mid September 2005.
- The cost of the study is US \$3250. JJ&A Fuels clients will receive a 10% discount.

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