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### February 2002

The Ethanol Industry Outlook is provided annually by the Renewable Fuels Association as an important resource for timely and accurate information about the U.S. ethanol industry. This year, the Outlook portrays an industry on the move, growing rapidly to provide homegrown fuel to meet the challenges of homeland energy security.

Indeed, the outlook for ethanol has never been brighter. Demand for clean-burning, domestic, renewable fuels is at an all time high, and the U.S. ethanol industry is rising to the challenge, expanding the fuel supply with high quality, high octane fuel. In 2001, the industry produced a record 1.77 billion gallons, and the outlook for 2002 is one of increased demand and continued industry growth.

Over the past two years, the U.S. ethanol industry initiated the most aggressive and rapid expansion in its history. Fifteen new ethanol production facilities have opened and several expansions to existing facilities have been completed, increasing ethanol production more than 550 million gallons. In 2002, 13 new facilities under construction will add nearly 400 million gallons of production. Dozens of new plants in various stages of development will come on line over the next few years.

Farmer-ownership of ethanol production facilities continues to dominate industry expansion and growth. With commodity prices at historic lows, investment in value-added ethanol processing by America's farmers provides a critical opportunity for increased farm income and rural economic development.

American farmers are ready, willing and able to lead the way toward energy independence. The time is right for a comprehensive energy policy that takes advantage of farmers' ability to produce renewable, domestic fuels such as ethanol to increase fuel supplies, reduce our dependence on foreign oil, and increase the United States' ability to control its own security and economic future.

Bob Dinneen

Bob Liner

President and CEO, Renewable Fuels Association

# **Growing Heartland Security Today**

Interest in ethanol as a clean-burning fuel oxygenate and high octane fuel is stronger than ever before. The need to expand fuel supplies to meet growing demand while reducing imports continues to drive record demand for ethanol. America's farmers have responded to the challenge, and farmer-owned facilities lead the growth in the industry. Importantly, investment in value-added ethanol processing by farmers provides a critical opportunity for increased farm income and rural economic development.

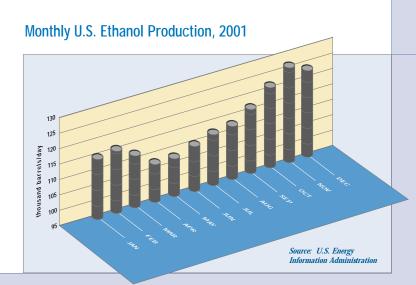
"These fuels are gentle on the environment. They are fuels that can be renewed year after year, and fuels that can expand our farm economy. These fuels are made right here in America, so they can't be threatened by any foreign power... Ethanol and biofuels are fuels of the future for this country."

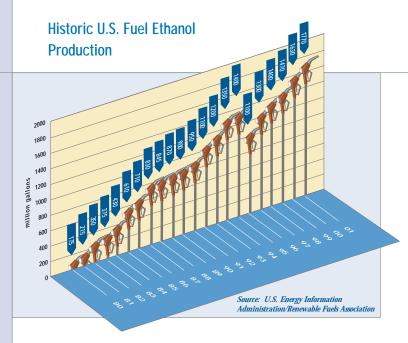
President George W. Bush

# Record Growth

In just the past two years, 15 new ethanol production facilities have opened and several expansions to existing facilities have been completed, increasing ethanol production more than 550 million gallons. Facilities under construction will add over 400 million gallons of new production capacity by the end of the year, and dozens of new plants in various stages of development will come on line in the next few years.

In 2001, the U.S. ethanol industry broke annual and monthly production records. Annual production reached 1.77 billion gallons, representing a nearly 10% increase from 2000 and a 20% increase from 1999. The industry achieved an all-time monthly production record of 126,000 barrels per day (b/d) in November.





# **Ethanol Consumption**

Ethanol is marketed across the country as an oxygenate to reduce vehicle emissions as part of federal and state clean fuel programs as well as an octane enhancer to improve vehicle performance and reduce engine knock. In 2001, approximately 450 million gallons of ethanol were utilized in federal reformulated gasoline (primarily in Chicago and Milwaukee), 250 million gallons in the federal winter oxygenated fuels program, 250 million gallons in Minnesota to satisfy the state's oxygenated fuels program, and 820 million gallons in conventional gasoline markets.

# State Ethanol Production Capacity

State	Million gallons/year		
Illinois	726		
lowa	661.5		
Nebraska	409		
Minnesota	342.6		
South Dakota	170		
Indiana	85		
Kansas	64.5		
Tennessee	60		
Wisconsin	59.7		
Missouri	41		
Michigan	40		
North Dakota	33.5		
New Mexico	15		
California	9		
ldaho	6		
Wyoming	5		
Kentucky	4		
Florida	4		
Colorado	1.5		
Washington	0.7		
Total	2.738 bgy		
to 1. 1. 200			







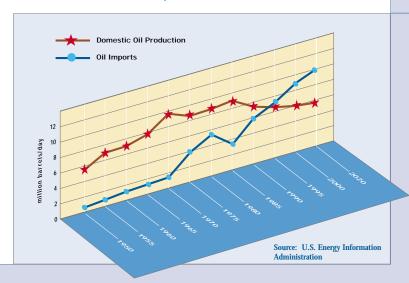
# **Building Energy Independence**

The energy challenges facing our Nation offer tremendous opportunities for agriculture. Through the production of fuels such as ethanol and biodiesel, farmers can be energy producers as well as consumers. The events of September 11, 2001 served as a reminder of our ever-growing dependence on oil that flows from an unstable region of the world. Recent energy supply crunches and price spikes have also focused attention on the need to develop a comprehensive, national energy policy that improves our energy security, increases and diversifies domestic energy supplies, ensures environmental quality, and modernizes the nation's energy infrastructure. America's economic prosperity and national security depend on the availability of reliable, affordable energy.

"[0]ne of the critical actions that must be taken now is to advance
America's energy security...through transportation fuels like ethanol...
[and] slow the dollars to the Middle East, where too many of those dollars have been used to buy weapons and fund terrorist activities."

Former Director of the Central Intelligence R. James Woolsey, former Joint Chiefs of Staff Chairman Admiral Thomas Moorer USN (Ret), and Robert McFarlane, Former National Security Advisor to President Reagan September, 2001 Since 1992, U.S. oil production has fallen by 17%, while consumption has increased 14%. Projections indicate this rift will grow larger as our energy needs continue to outpace domestic production. Today, oil imports account for 56% of our consumption, which the Energy Information Administration anticipates could grow to nearly 70% by 2020. The U.S. spends \$300 million per day for imported oil, totaling more than \$100 billion per year. Alarmingly, Iraq represents the fastest growing source of U.S. oil imports.

### U.S. Oil Production Vs. Imports



# "America cannot have homeland security without energy independence."

President George W. Bush

# Ethanol Increases our Energy Security

By increasing the supply of fuel, the production and use of ethanol in the U.S. reduces oil imports. Blending 10% ethanol into gasoline directly increases available fuel supplies by ten percent. In fact, 23.8 gallons of ethanol displace one barrel of imported oil. Tripling the use of domestic ethanol would effectively replace our current Iraqi oil imports. At the same time, the use of ethanol improves energy security by diversifying our energy infrastructure and making it less vulnerable to acts of terrorism.

73 percent of Americans believe the U.S. should develop new energy sources to diminish its dependence on Mideast oil supplies.

NEWSWEEK Poll
November 2001

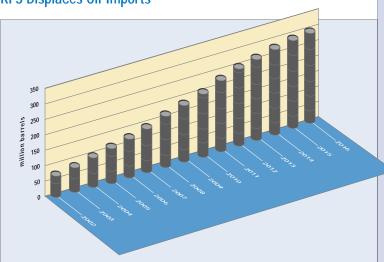
### A Renewable Fuels Standard

Implementing a renewable fuels standard (RFS), in which a small percentage of our nation's fuel supply is provided by renewable, domestic fuels, provides a positive roadmap for reducing consumer fuel prices, increasing energy security, and stimulating rural economies by harnessing America's renewable energy potential.

A recent report, An Economic Analysis of Legislation for a Renewable Fuels Requirement for Highway Motor Fuels, underscores the tremendous economic development and energy security impacts of implementing an RFS. The report concludes an RFS would have the following impacts over the next 14 years:

- Reduce crude oil imports by 2.9 billion barrels
- Reduce the U.S. trade deficit by \$63.4 billion
- Create 300,000 new American jobs
- Increase U.S. household income by \$71 billion
- Create \$10.5 billion in new investment in renewable fuel production facilities

# **RFS Displaces Oil Imports**



# **Ethanol Improves Our Environment**

Ethanol maintains widespread support for its ability to improve the environment and public health by reducing harmful vehicle emissions and displacing toxic gasoline components. Ethanol contains 35% oxygen, and adding oxygenates such as ethanol to fuel results in greater fuel combustion, reducing tailpipe emissions. Ethanol is non-toxic and quickly biodegradable in surface water, groundwater and soil.

Over half of vehicle emissions come from gross polluters that make up only 10% of the vehicle fleet.

# Ethanol's Use in Clean Fuel Programs

Ethanol dramatically reduces carbon monoxide emissions, which are responsible for as much as 20% of urban ozone (smog) formation, according to the National Research Council. Ethanol-blended fuels also reduce tailpipe emissions of volatile organic compounds (VOC) and fine-particulates that pose a health threat to children, senior citizens, and those with respiratory ailments. For these reasons, ethanol is widely used in federal clean fuel programs in cities that exceed public health standards for carbon monoxide and ozone pollution.

The Clean Air Act Amendments of 1990 established the federal reformulated gasoline (RFG) program to reduce smog in urban areas with severe ozone pollution. RFG is specially formulated to reduce VOC and air toxics emissions through a combination of emissions performance standards and the addition of oxygen to the fuel. The RFG program has been a tremendous success, reducing ozone and toxic emissions greater than required.



### Ethanol's Clean Air Record

- Ethanol is used almost exclusively to reduce carbon monoxide (CO) emissions in the federal winter oxygenated fuels programs. By using ethanol in their clean fuel programs, 27 of the 40 original nonattainment areas have successfully reduced CO pollution, and many continue to use ethanol to maintain clean air gains. Denver recently became the first "serious" nonattainment area to achieve attainment for CO.
- The greater Chicago and Milwaukee metropolitan regions, which use ethanol-blended RFG exclusively, are the first ozone nonattainment areas to satisfy federal clean air requirements and seek reclassification.
- Over half of vehicle emissions come from gross polluters (older vehicles and new cars with malfunctioning pollution control systems), which make up only 10% of the fleet. Studies show ethanol-blended fuels reduce emissions of carbon monoxide and hydrocarbons by 20% and fine particulate by 40% in these vehicles.
- Ethanol is one of the best tools for reducing pollution from off-road vehicles, such as motorcycles, ATVs and snowmobiles, which lack pollution control devices. In fact, Yellowstone National Park requires all fuel sold in the park to contain 10% ethanol to reduce pollution.

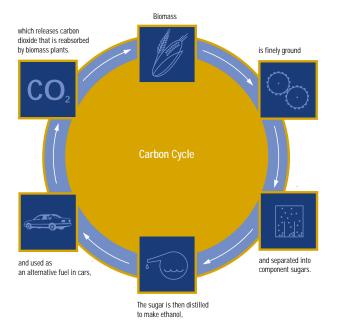
# Renewable Fuels and Climate Change

Ethanol, a renewable, low-carbon fuel, helps to reduce greenhouse gases (GHG) emitted from vehicles, including carbon dioxide, methane, and other gases that contribute to global warming. Growing recognition of ethanol's ability to reduce GHG emissions from vehicles has spurred interest in ethanol production and use worldwide.

The production of ethanol represents a carbon cycle, where plants absorb carbon dioxide during growth, "recycling" the carbon released during fuel combustion. A fuel-cycle analysis by Argonne National Laboratory concluded the use of ethanol-blended fuels reduces GHG emissions by 12-19%, petroleum use by 90-93%, and fossil energy use by 40%.

In 2001, ethanol use in the U.S. reduced CO2-equivalent GHG emissions by approximately 3.6 million tons, the equivalent of removing more than 520,000 cars from the road.

Argonne National Laboratory



# **U.S. Ethanol Production Capacity**

Company	Location	Feedstock	MGY million gallons/ye
ACE Ethanol ◆	Stanley, WI	Corn	15
Adkins Energy, LLC 🔷 🛨	Lena, IL	Corn	40
A.E. Staley	Loudon, TN	Corn	60
AGP ★	Hastings, NE	Corn	52
Agra Resources Coop (EXOL) ★	Albert Lea, MN	Corn	37
Agri-Energy, LLC \star	Luverne, MN	Corn	21
Alchem Ltd. LLLP	Grafton, ND	Corn	10.5
Al-Corn Clean Fuel ★	Claremont, MN	Corn	18
Archer Daniels Midland	Decatur, IL Peoria, IL Cedar Rapids, IA Clinton, IA Wallhalla, ND	Corn Corn Corn Corn Corn/Barley	950
Badger State Ethanol, LLC * *	Monroe, WI	Corn	40
Broin Companies	Scotland, SD	Corn	9
Cargill, Inc.	Blair, NE Eddyville, IA	Corn Corn	75 35
Central MN Ethanol Coop ★	Little Falls, MN	Corn	19
Chief Ethanol	Hastings, NE	Corn	62
Chippewa Valley Ethanol Co. ᄎ	Benson, MN	Corn	21
Corn Plus ★	Winnebago, MN	Corn	44
Dakota Ethanol, LLC ★	Wentworth, SD	Corn	45
DENCO, LLC ★	Morris, MN	Corn	20
ESE Alcohol Inc.	Leoti, KS	Seed Corn	1.5
Ethanol2000, LLP ★	Bingham Lake, MN	Corn	30
Glacial Lakes Energy, LLC ◆★	Watertown, SD	Corn	40
Golden Cheese Company of California *	Corona, CA	Cheese Whey	5
Golden Triangle Energy, LLC ★	Craig, MO	Corn	20
Gopher State Ethanol	St. Paul, MN	Corn	15
Grain Processing Corp.	Muscatine, IA	Corn	10
Heartland Corn Products ★	Winthrop, MN	Corn	35
Heartland Grain Fuels, LP ★	Aberdeen, SD Huron, SD	Corn Corn	8 14
High Plains Corp.	York, NE Colwich, KS Portales, NM	Corn/Milo	50 20 15
Husker Ag Processing ◆ ★	Plainview, NE	Corn	20
J.R. Simplot	Caldwell, ID Burley, ID	Potato Waste	6

Company	Location	Feedstock	MGY million gallons/year
Land 0' Lakes ★	Melrose, MN	Cheese Whey	2.6
Little Sioux Corn Processors, LLC ◆ ★	Marcus, IA	Corn	40
Manildra Energy Corp.	Hamburg, IA	Corn/Milo/Wheat Starch	8
Merrick/Coors	Golden, CO	Brewery Waste	1.5
Michigan Ethanol, LLC ◆	Caro, MI	Corn	40
Midwest Grain	Pekin, IL Atchison, KS	Corn/Wheat Starch	78
Midwest Grain Processors ◆ ★	Lakota, IA	Corn	45
Miller Brewing Co.	Olympia, WA	Brewery Waste	0.7
Minnesota Corn Processors★	Columbus, NE Marshall, MN	Corn Corn	100 40
Minnesota Energy ★	Buffalo Lake, MN	Corn	18
New Energy Corp.	South Bend, IN	Corn	85
Northeast Iowa Ethanol, LLC ◆ ★	Earlville, IA	Corn	15
Northeast MO Grain Processors ★	Macon, MO	Corn	21
Northern Lights Ethanol, LLC 🕈 🛨	Milbank, SD	Corn	40
Permeate Refining, Inc.	Hopkinton, IA	Sugars & Starches	1.5
Pine Lake Corn Processors, LLC ◆ *	Steamboat Rock, IA	Corn	15
Plover Ethanol	Plover, WI	Seed Corn/Potatoes	4
Pro-Corn, LLC \star	Preston, MN	Corn	22
Quad-County Corn Processors ★	Galva, IA	Corn	18
Reeve Agri-Energy	Garden City, KS	Corn/Milo	12
Siouxland Energy & Livestock Coop ★	Sioux Center, IA	Corn	14
Spring Green Ethanol ◆	Spring Green, WI	Cheese Whey	0.7
Sunrise Energy ★	Blairstown, IA	Corn	7
Sutherland Associates	Sutherland, NE	Corn	15
Tall Corn Ethanol, LLC ◆ ★	Coon Rapids, IA	Corn	40
Tri-State Ethanol Co., LLC ★	Rosholt, SD	Corn	14
U.S. Energy Partners, LLC	Russell, KS	Milo	25
U.S. Liquids	Louisville, KY Bartow, FL R. Cucamonga, CA	Beverage Waste	4 4 4
Williams Bio-Energy	Pekin, IL Aurora, NE	Corn Corn	100 35
Wyoming Ethanol	Torrington, WY	Corn	5

# 2002 Total U.S. Ethanol Production Capacity

2738 million gallons

★ farmer-owned company

under construction

# **Growing the Heartland's Economy**

Ethanol production facilities across America's countryside serve as local economic engines – providing high-paying jobs, capital investment opportunities, increased local tax revenue, and value-added markets for area farmers. The economic activity generated by an ethanol plant ripples throughout the region as new wage-earners spend their money at local businesses.

For every dollar invested by the federal government to stimulate ethanol production and use, \$6 is returned to the Treasury in tax revenue and savings from reduced government outlays.

# Benefits of U.S. Ethanol Production

While the economic prosperity of the last two decades largely bypassed rural America, the ethanol industry's record growth demonstrates the tremendous opportunity to be gained in value-added processing.

- Boosts total U.S. employment by 192,000 jobs
- Improves the U.S. trade balance by \$2 billion
- Adds over \$450 million to state tax receipts
- Increases net farm income by \$4.5 billion
- Provides a net savings to the Federal Treasury of \$3.6 billion each year

Source: Dr. Michael Evans, Kellogg School of Management, "The Economic Impact of the Demand for Ethanol"

### **U.S. Ethanol Production Facilities**





# Driving Rural Economic Growth

While the ethanol industry is a proven economic success story throughout the traditional "grain belt," growing demand for domestic, renewable fuels is prompting community leaders across the country to examine the economic benefits of ethanol production and use. California, New York, New Jersey, Ohio, Oregon, North Carolina, Texas, Maryland, Washington, and Pennsylvania are just a few of the states working to develop an ethanol industry. In addition to traditional grains, some of these projects will use wood waste, municipal solid waste, crop residues, and other innovative cellulose feedstocks. These ethanol plants will create quality jobs, increase the local tax base, and help keep consumer dollars at home, rather than exporting those dollars for oil.

### Benefits of a Renewable Fuels Standard

A renewable fuels standard (RFS) would dramatically increase the economic benefits associated with ethanol production and use. Increased demand for agricultural products created by an RFS would have the following benefits for rural America:

- Demand for corn used to produce ethanol will increase from 650 million bushels in 2000 to 2.5 billion bushels in 2016 thereby increasing the price of corn by an average of 28 cents per bushel.
- Create 300,000 jobs
- Over \$10.5 billion in new rural economic investments will be made.
- Net farm income will increase an average of \$6.6 billion annually.
- Taxpayers will benefit from reduced government payments to farmers totaling \$7.8 billion.

Source: An Economic Analysis of Legislation for a Renewable Fuels Requirement for Highway Motor Fuels



The Minnesota "Miracle" The State of Minnesota leads the country in promoting the production and use of ethanol. Since 1997, Minnesota requires gasoline to contain oxygen such as ethanol. The result: Minnesota is the first and only state to meet the goals of the federal Energy Policy Act of 1992, legislation enacted to reduce the nation's dependence on foreign

oil. Nearly all of Minnesota's 2.6 billion gallons of gasoline are blended with ethanol, reducing fuel imports by 10%.

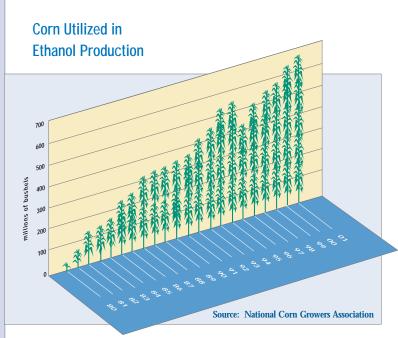
Today, Minnesota boasts 14 ethanol plants, 13 of which are owned by farmers, with a total production capacity of over 340 million gallons per year.

The Minnesota ethanol industry:

- consumes over 130 million bushels of corn
- provides over \$15 million in taxes
- Boosts the economy by more than \$400 million
- generates \$11 of economic benefit for every \$1 invested by the state

# Value-Added Opportunities for Agriculture

Ethanol represents an important value-added market for corn and other commodities. Record harvests have resulted in historically low commodity prices. In 2001, U.S. ethanol production facilities processed nearly 700 million bushels of corn, boosting corn prices 30 to 35 cents per bushel. Today ethanol represents the third largest market for U.S. corn. The positive outlook for growing ethanol demand ensures a stable and growing market for American agriculture.

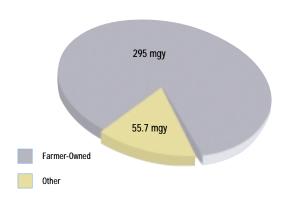


# Farmers Lead Record Industry Expansion

The production of ethanol has sparked new capital investment and economic development in rural America. Nearly one million farmers are owner-investors in ethanol production facilities. Farmer-owners in ethanol production benefit twofold: they have a dedicated value-added market for their crop and they have an opportunity to participate in profit sharing dividends. Since 1990, farmer-owned facilities are responsible for 50% of new production capacity. Today, farmer-owned ethanol plants comprise more than a third of all production with the capacity to produce nearly one billion gallons of ethanol. More than 75% of plants currently under construction are farmer-owned. By the end of 2002, half of all ethanol production facilities will be farmer-owned.

Ethanol production adds value for farmers by converting \$2 worth of corn into \$5-6 worth of ethanol and ethanol co-products.





# Food and Fuel Products (from One Bushel of Corn) Starch 32 Pounds Gluten Meal 3 Pounds Corn Oil 1.6 Pounds Source: National Corn Growers Association Gluten Feed 11.4 Pounds

### Valuable Feed Co-Products

Ethanol production utilizes only the starch portion of the corn kernel, which is abundant and of low feed value. The remaining vitamins, minerals, protein and fiber are sold as high-value livestock feed. In 2001, approximately 3 million short tons of distillers dried grains with solubles (DDGS) were produced by ethanol dry mills and sold as livestock feed. Ethanol wet mills produced approximately .45 million short tons of corn gluten meal, 2.5 million short tons of corn gluten feed and germ meal, and 530 million pounds of corn oil.

### How Fthanol is Made

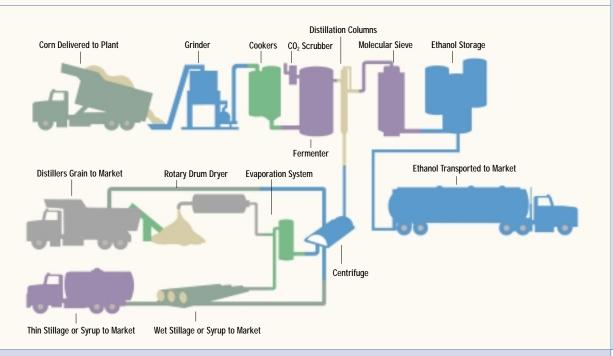
The production of ethanol or ethyl alcohol from starch or sugar-based feedstocks is an excellent example of value-added processing. There are two production processes: wet milling and dry milling. Wet and dry mill processing facilities each account for approximately 50% of ethanol production.

The main difference between the two processes is in the initial treatment of the grain and the feed co-products. In the wet mill process, instead of initially grinding the corn, it is soaked or "steeped" to separate the grain into its many parts. The starch is fermented into ethanol, similar to the dry mill process (shown

below), or processed into corn starch or corn syrup. The germ is processed for corn oil. The fiber and concentrated steeping liquid are co-dried and sold as corn gluten feed to the livestock industry. The gluten (protein) is dried to produce gluten meal, a highly sought after feed ingredient for poultry.

An increasing amount of ethanol is produced from nontraditional feedstocks such as waste products from the beverage, food and forestry industries. In the near future we will produce ethanol from agricultural residues such as rice straw, sugar cane bagasse and corn stover, municipal solid waste, and energy crops such as switchgrass.

The Ethanol Production Process (Dry Mill)



# Transporting Ethanol Coast to Coast

Just as the ethanol industry has increased capacity to meet growing demand, America's transportation sector is working to ensure ethanol can be transported cost-effectively from coast-to-coast. Ethanol is transported via barge, railcar, and oceangoing vessel to markets throughout the country. While Midwestern states have traditionally represented the largest ethanol market, demand is growing nationwide due to ethanol's competitiveness as an octane enhancer and growing interest in limiting MTBE use, reducing foreign oil imports, and increasing the use of domestic, renewable fuels. The increased demand for ethanol will create thousands of American jobs throughout the transportation industry.





A January 2002 report completed for the U.S. Department of Energy assessed the infrastructure requirements, including transportation, distribution and marketing issues, for an expanded ethanol industry. The report concludes, "no major infrastructure barriers exist" to expanding the U.S. ethanol industry to 5 billion gallons. Importantly, the report finds the logistics modifications necessary can be achieved cost-effectively. According to the report:

- The need for additional rail cars "would not be a major challenge for the freight car builders."
- The number of additional river barges needed "is not a major addition to demand for new barges."
- Pipeline ethanol shipments are possible, but will be limited to niche situations. However, with some major pipelines nearing capacity, ethanol's established alternative modes of transport may prove to be a positive attribute.
- Terminal equipment and retail outlet investments, amortized across the equipment life cycle, on a per gallon of new ethanol volume basis, represent less than one tenth of a cent.

# Leading the Way to a Better World

Demand for high performance, environmentally friendly fuels presents exciting opportunities to expand the use of ethanol into new markets and emerging technologies. From fuel cells to diesel fuel markets and even aviation fuel, ethanol can lead the way to a cleaner environment and reduced foreign oil dependence.

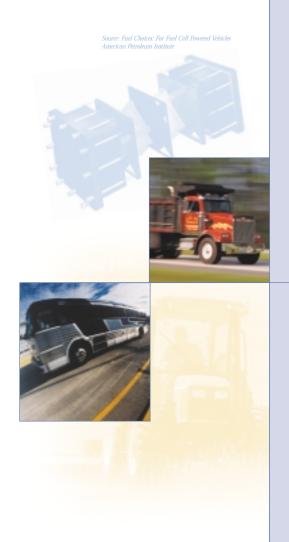
### **Fuel Cells**

The use of fuel cells to power vehicles and produce electricity is widely anticipated to improve air quality by reducing emissions, petroleum consumption and oil imports. Fuel cells operate on hydrogen, which can be reformed or extracted from fuels such as ethanol. Ethanol is an attractive fuel because it is produced domestically and is renewable. Ethanol is also easier to reform than most fuels because of its relatively simple molecular structure. Laboratory demonstrations have shown that ethanol provides higher efficiencies, fewer emissions, and better performance than most other fuels, including gasoline. Importantly, ethanol can use the existing fueling infrastructure.

The U.S. Department of Energy has partnered with Caterpillar Inc., Nuvera Fuel Cells and Williams Bio-Energy to design, fabricate, and demonstrate the nation's first commercial ethanol powered fuel cell. The 13-kilowatt ethanol-fueled PEM stationary fuel cell system will power Williams' security office and visitor center in Pekin, Illinois.

# E Diesel

Federal regulations aimed at reducing emissions from diesel engines could provide a market opportunity for a blend of ethanol and diesel fuel. Positive demonstrations in trucks, farm equipment, and buses have paved the way for continued work with stakeholders to identify and address issues surrounding the potential commercialization of E-Diesel, including engine warranties, fuel performance, materials compatibility, emissions, health effects testing, and fuel economy.



# A More Secure Future

It is clear that environmental concerns, economic development and energy security remain at the top of the list of issues for the world. The U.S. ethanol industry is committed to meeting market demand for clean, domestic, renewable fuels with timely delivery of ethanol across the country. We will continue to work with all stakeholders, including policy makers, agriculture, petroleum, auto manufacturers and the environmental community to provide consumers with cost-effective, clean-burning fuels. Working as partners, we can secure our own energy, economic and environmental future.



# **Renewable Fuels Association**

Established in 1981, the Renewable Fuels Association (RFA) is the national trade association representing the U.S. ethanol industry. The RFA is dedicated to expanding the production and consumer use of renewable ethanol in U.S. fuel markets. Membership includes ethanol producers, marketers and blenders, equipment manufacturers, engineering and design companies, agricultural organizations, and members of consumer and environmental groups.

# Goals and Objectives:

- Promote policies and programs advantageous to the development and use of ethanol fuels to the U.S. Congress, the Administration, and other federal, state and local government entities.
- Provide technically accurate and timely information on ethanol to consumers, gasoline marketers, auto manufacturers and technicians and the media.
- Participate in educational activities to increase public awareness concerning the production and use of ethanol as well as an understanding of ethanol's contribution to the environment, America's energy independence and national security.

For more information about the RFA, including membership inquiries, please contact the RFA office, or visit our web site at www.ethanolRFA.org.





# Renewable Fuels Association

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