



*"The Voice of the Ethanol Industry  
for More Than a Quarter Century"*

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## **"Near-Term U.S. Ethanol Industry Outlook"**

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**As prepared for delivery:**

Good morning.

I think most of you know how much I enjoy coming to this event every year. This is my 21<sup>st</sup> FEW. And I love it because this audience is the heart and soul of the ethanol industry. You are the people that make it happen. You run the plants, supply the services, and provide the technology that is driving this industry to new heights, even in the face of unprecedented challenges. Thank you for everything you do.

I also love this event, because I have such professional regard and personal affection for Kathy Bryan, whose vision for this event and for this industry 25 years ago, inspire us all still today. Congratulations, Kathy, on the well deserved recognition of the High Octane Award. Few people have meant as much to this industry as you have. Few people have touched every facet of the industry as you have -- production, marketing, advocacy, consulting and publication. You have done it all, and you have done it well. And on behalf of a grateful industry, I thank you.

Kathy's indefatigable spirit is needed today, more than ever. Because my friends, with apologies to Meredith Wilson, "we got trouble." "Right here in River City, we got trouble, and that starts with T and that rhymes with E and that stands for one heck of a lousy Economy.

The recession that has plagued the nation and the world is certainly having its impact on us. Volatility in commodity markets, rising energy costs, and a dysfunctional capital market has left our industry reeling, like many others, but like at no time in our industry's short history.

But, in the U.S. ethanol industry, when we face great challenges, we do great things.

Look at last year – in the face of a deepening economic downturn, negative 3% growth and rising unemployment, the U.S. ethanol industry grew by 34%, opening 31 new plants and adding an additional 240,000 new jobs!

We produced more ethanol last year than ever before, some 9 billion gallons, and we added new markets in the southeast and northwest where the RFA had worked with the oil industry and state governments to tear down regulatory barriers to blending.

As our industry grows, we are transforming our nation's motor fuel market, and we are transforming the rural landscape of America. Let's reflect on what this industry means to rural America.

Many of these plants – and most of these jobs – are in rural areas or small factory towns. These are places where farmers are facing hard times; where the factories are closing down; and where young people have had to move out of town in order to get good jobs.

Now, in these places where hope is the rarest commodity, the ethanol industry is offering new opportunities for farmers to find markets for their crops, for workers to find good-paying jobs, and for everyone to get in on the ground floor of a growing industry. In fact, more than half of all ethanol plants are owned by farmers – ordinary people making the most of an extraordinary opportunity.

Just a little more than a month ago, in the farming, factory and mining town of Fort Dodge, Iowa, not far from River City, there was a ceremony at the local high school honoring 109 students for their achievements in math and science. These are the young people who might be most likely to leave town to get good jobs far from home.

The speaker that day was the manager of the Biofuels Testing Laboratory at Iowa Central Community College. He talked about how the ethanol industry offers good jobs for professionals and technicians with training in biology, chemistry, mathematics, engineering, accounting and business management – jobs where you don't have to leave home to get ahead.

So when I'm asked about the "near-term outlook" for the U.S. ethanol industry, here is my answer. We are creating new opportunities in communities that most industries have ignored. We are reducing oil imports by more than 300 million barrels a year, making our country less dependent on Hugo Chavez, OPEC, and unfriendly governments from unstable parts of the world. And we are diminishing the dangers of climate change by reducing greenhouse gas emissions by 61 percent.

## **The Challenge of Carbon**

That brings me to the second Trouble I want to talk about – Carbon.

As the nation and the world look to regulate carbon, whether through carbon taxes or cap and trade or by assigning a GHG profile to biofuels in the RFS, we will need to make sure that the bureaucrats get it right – that they recognize the carbon benefits of biofuels like ethanol and do not unfairly and with no scientific foundation penalize biofuels for the carbon footprint of other industries or other countries.

Make no mistake, carbon regulation is coming. Mother Earth is suffering from a century of unrestrained petroleum use, and steps will need to be taken to restore our planet to good health.

Carbon regulation is being pursued on numerous fronts. First, U.S. EPA has proposed that all industries report their GHG emissions. Sounds simple enough. But for ethanol producers they are asking that we report emissions from such minor sources as wastewater treatment. They assume all ethanol plants have methane emissions from landfills. They really have no idea about our industry.

Last week the RFA filed comments with EPA objecting to the overarching and unnecessary requirements included in their GHG Reporting Rule. While we generally support EPA's objective of getting more information about GHG emissions, we're working with other industries to narrow the scope of EPA's proposed rule. We will prevail, but there's work to do.

Second, California and several other states are contemplating low carbon fuel standards. That is a laudable objective. But as the California program is currently designed, it will erect a “NO Midwest Ethanol” sign at the border, allowing only Brazilian ethanol and some California produced ethanol to compete in the state. That’s absurd.

The RFA has worked hard to bring some semblance of scientific integrity to a broken process. We showed how California grossly underestimated increases in yields and the value of ethanol feed coproducts. And we have hounded them to look at the carbon footprint of petroleum and other fuels as closely as they have ethanol. After all, if they’re going to count the angels on the head of a pin for ethanol, they ought to at least take a passing glimpse at the carbon consequences of other fuels. To date, they have not.

Consider this absurdity. CARB assumes NO carbon impact from increased electric vehicle use, even though the increased demand for electricity would drive demand for coal fired electricity to new heights. Their reasoning is that they assume all electric vehicles will be recharged on off peak hours. Oh! Ok. And while they cling to that fantasy, they simultaneously assume every ear of corn used for ethanol production in the U.S. results in a tree being cleared in the Amazon. I’m not making this up. That’s their modeling. It makes no sense. It isn’t justified. And it will not stand.

The state has agreed to submit its regulation to a peer review. But it won’t end there. And the RFA is prepared to fight for good science as long as it takes for them to get it right.

Third, of course, is the GHG accounting that has to be done in order to implement the RFS program. Corn ethanol must achieve a 20% reduction in carbon, advanced biofuels like biodiesel must meet a 50% reduction, and cellulosic ethanol must achieve a 60% reduction in carbon relative to gasoline.

But what metric will EPA use to determine our carbon footprint? Nobody really knows! Right now, EPA has cobbled together 9 different models and data sets to project the carbon emissions from ethanol production in 2022. None of the models used were designed for this purpose, and none of them were designed to work with other models in the way that EPA is asking them to.

Last week, EPA held a public hearing and a two day workshop on their proposed rule and their modeling. The RFA participated in both and went through in minute detail the limitations of EPA’s proposal. We have demanded more transparency in EPA’s process and intend to replicate their findings to determine the impact of several important assumptions. To begin with, we know their corn and ethanol yields are too low and held static by the models, and we absolutely do not believe that their inclusion of “international” indirect effects is required by the statute, intended by Congress or supported by sound science.

As an aside, I’ll tell you that after I testified before EPA last week, a very sincere and presumably erudite scientist from an environmental group spoke. He praised EPA’s inclusion of indirect effects and noted that EPA must include such effects because they are, indeed, part of the carbon footprint. When he was done, I suggested to him that while I didn’t necessarily disagree, the problem was there are no existing tools to accurately reflect what those impacts might be, and that doing it for only biofuels was also distorting. He told me he agreed, and noted that “we need better tools.” That’s the problem! The policy is ahead of the science. Environmentalists don’t care because they think the policy is more important than our industry’s reputation. One leading environmentalist told me last week that he didn’t care whether the number for indirect land use for ethanol was 30 g/mj CO<sub>2</sub>e or 20 or 10. But that he had to have some kind of number because we “know” it’s not 0, and while we may not know exactly what it is, we have to have a number!

Such thinking is wreaking havoc on the positive environmental moniker of ethanol. But it can only be rehabilitated by working with scientists and environmentalists to answer the question of ethanol’s carbon footprint. We can’t legislate the criticism away, and we can’t ignore it. We need to answer the critics with sound science and facts. And the facts are on our side. Our carbon footprint is improving with every new plant and each new technology the people in this

room are bringing into commercial application. Their carbon footprint is getting worse with every gallon of tar sands and every new deep water well they dig!

For that reason, carbon regulation need not be something to fear. It should be something to embrace. I suggest that every plant manager and every employee that cares about this industry should be thinking about ways to reduce their plant's carbon footprint.

If we can perfect and commercialize biomass gasification, for example, we will not only improve our economics, we will greatly improve our carbon footprint. If we can utilize co-generation technologies, we will likely have significant carbon credits to add value to our plants. We're heading toward a carbon constrained world; no low carbon technology should be ignored.

## Critics Abound

There are other troubles, of course, the criticism we read about almost daily in newspapers across the country.

Make no mistake, the reason we face so much criticism is not that our adversaries fear we are failing but that they are scared we are succeeding.

That is why well-funded, well-organized interests from the petroleum, food-processing, and factory-farming industries are stepping up the paid propaganda campaign against U.S. ethanol. They are working overtime to persuade public policymakers, opinion leaders, and the general public that ethanol is responsible for all the ills of the world – from rising food prices, to deforestation, to airline disasters. Seriously, an article last January actually blamed the increase in corn production as leading to more geese around airports that caused Sully's US Air flight to ditch in the Hudson.

We should take these attacks as a badge of honor -- and answer them with gusto.

The two most common attacks are shameless, senseless and fact-free.

First, we're told that producing ethanol from grains decreases food supplies and increases food prices. Then, we're told that using ethanol and other grains for ethanol production in the U.S. and throughout the world is causing the clearing of rain forests and other native lands, which, in turn, contributes to climate change.

## Food vs. Fuel

Just last week, the food processing and factory farming industries tried to scare our nation's lawmakers and the general public by recounting a doomsday tale of skyrocketing food prices as a result of increased ethanol use. Yep, Chicken Little squawked again!

American farmers remain the most productive the world has ever known. Last year, even with the 34% increase in U.S. ethanol production, farmers produced the second largest corn crop on record, **increased** exports, fed more livestock than ever, and increased the amount of corn leftover from the year before.

This remarkable record was not achieved by plowing up every acre, as some would suggest. This was done by harnessing the power of innovation, increasing corn yields 400% since World War II while planting the same number of acres.

Moreover, ethanol producers continue to make distillers grains an increasingly integral part of the feed chain. In 2008, a record 27 million tons of distillers grains were produced – enough to feed all the cattle in feedlots in Texas, Kansas, Nebraska, and Colorado combined.

Ethanol production and feed production are not mutually exclusive. We can feed the world reliably and fuel this nation renewably. And we are just getting started.

## Land Use Change

The second big lie is that increased ethanol production in River City is causing land use change in Africa and South America.

Now these are the facts. Deforestation is caused by logging, cattle ranching, and subsistence farming. These are local decisions that were made far away from the Midwestern United States. They were not caused by a growing biofuels market. Oh, and deforestation has *decreased* as ethanol production has increased the past several years. Inconvenient things, these facts.

And here are some more facts: in 2007, the total amount of cropland dedicated to American ethanol production was only 0.6 percent of total cropland worldwide. Even if the U.S. were to produce 15 billion gallons of grain ethanol by 2015, as required by the RFS, this would still require less than 1 percent of total world cropland.

Moreover, there are vast amounts of unused arable land available for agriculture throughout the world. As the Food and Agriculture Organization of the United Nations has reported, there are 1.5 billion hectares of land used for arable and permanent crops. That is about 11 percent of the world's surface area.

But there are 2.8 billion more hectares of unused land suitable for agriculture. That is almost twice as much land as is currently being farmed.

We simply do not need to choose between environmentally-friendly fuels and environmentally-essential rain forests.

So why are these false choices being posed by the petroleum, food processing, and factory farming industries. Have they suddenly become environmentalists and consumer activists? No! They want to prevent the expansion of the only industry directly reducing the use of petroleum today. They are using their political clout, their deep pockets, and their media savvy fueled by being the single largest advertiser in the market to win battles in Washington, D.C., that they cannot win in the marketplace.

## Market Expansion

If America is honest about reducing its dependence on foreign oil, increasing the availability of ethanol is a must. The sheer statistics alone are overwhelming.

There will soon be 3 billion cars on the road across the globe. Yep, surprise, people in China and India want to drive too! Three billion cars will drive oil consumption from the 86 million barrels used today to about 120 million barrels. My friends, Mother Earth doesn't have that much oil!

We can't drill our way out of this mess. And we couldn't afford it even if we could. Consumption is continuing to grow. Known supplies are running out. New reserves are harder to find. And developing and drilling those reserves is becoming much more costly – environmentally and economically. So we can expect more roller-coaster rides on prices – which will shake up an already unstable global economy. That happened last year. And that will keep happening, year after year, until the world cures itself of its addiction to petroleum.

The cure is greater ethanol use. E12, E15, E30 and E85 must all be part of equation. That is why the RFA is working with colleagues in the industry and decision makers in Washington to increase the amount of ethanol blended in conventional gasoline. The RFA has long held that – based in part on conversation with Obama Administration officials – the EPA has the authority to move immediately to ethanol blends of 12 or 13 percent without

adverse impacts on automobiles or air quality. Such a move, the RFA also strongly believes, can occur while EPA simultaneously reviews the merits of the formal E15 waiver.

While a move to E12 or E15 won't immediately boost demand for ethanol, it will provide gasoline refiners and marketers the flexibility to maximize ethanol blending while higher level blends are explored and the infrastructure to dispense them created.

To that end, the RFA has been very engaged in expanding E85 and blender pump infrastructure throughout the nation, focusing specifically on non-traditional markets. We recently partnered with the U.S. Navy to open a station at their facility in Virginia Beach, Virginia. You may have also noticed the opening of the 2,000<sup>th</sup> E85 station in South Florida. The RFA worked very closely with the station, fuel suppliers, the state of Florida and automakers to bring that station online. And more is planned.

The continued expansion of higher level blends must remain a priority those in this industry share. Many have contributed countless hours and resources to get us to this point. It is incumbent upon us all to continue to build upon that success. Higher level blends are critical to the future viability and ultimate success of our industry.

### **Cellulose is Coming, Cellulose is Here!**

So must the next generation of ethanol. For almost 25 years, many of us have said that the development of cellulosic and other next generation ethanol technologies have been "just around the corner." Well, now, we're turning the corner.

U.S. ethanol producers are rapidly developing and commercializing technologies that use new feedstocks in addition to grain. These feedstocks include woodchips, corncobs, native grasses, and plain old garbage.

In fact, the town of Hoover, just outside of Birmingham, Alabama, is fueling its police cars with ethanol made from the city's own garbage by a startup company called Gulfcoast Energy – Today! Think about that, the ethanol industry is creating new opportunities in an area where Rev. Martin Luther King, Jr., led historic civil rights struggles, where the steel industry is in decline, and where working people – black and white – are hungry for hope.

Many other companies, from Abengoa to ZeaChem are doing the same thing with their technologies and their feedstocks. Verenium, Coskata, POET, Mascoma, Iogen, and countless others in this room are racing, today, to commercialize cellulosic ethanol. It's happening today. It's a reality today. It's the fruition of a dream Kathy Bryan and many others in this room have been nurturing for the 25 years of the FEW.

But I would caution everyone not think in terms of new ethanol and old ethanol. Just as with any new generation, the new generation of ethanol needs an older generation before it. Grain ethanol gives rise to the companies, the infrastructure, the trained and skilled workforce, the markets, the vehicles and even the public policies that are so essential for cellulosic ethanol. As President Obama just declared, the "transition to [the next generation] will be successful only if the first-generation biofuels industry remains viable in the near term."

### **Conclusion**

That is why the Renewable Fuels Association is working with the news media, the Congress, the Administration, and every other policymaker, opinion leader, and influential constituency to make the case for clean-burning, renewable, American-made fuels.

We may have troubles, but we in the ethanol industry have a great story to tell, a compelling case to make, new opportunities to seize, and new markets to win over.

Don't let anybody tell you that the ethanol industry is somehow responsible for despoiling rainforests and increasing carbon. We are the only way gasoline refiners can lower the carbon footprint of their product today.

Don't let anyone tell you ethanol is a government boondoggle, we are creating new hope, new markets for farm products, new jobs for willing workers and new opportunities for entrepreneurship in communities where people need new pathways to a better life.

Don't let anybody tell you that the world must choose between food and fuel. Our industry is helping humanity to achieve its historic dream of an affordable, and sustainable, abundance of all the necessities of life.

And don't let anybody tell you that cellulosic ethanol is somebody's pipe dream. It is as real as the people in this room.

If we stick together, do our work well, and stay focused on the future, our potential is unlimited – in the near-term, the long-term, and as far as our eyes can see and our minds can imagine.

Thank you all for listening, and for the honor of being one of you.