

**Platts Cellulosic Ethanol Conference  
“Commercial and Financial Viability and Prospects for Growth”  
Chicago, Illinois\*October 31, 2006**

**Thomas C. Dorr  
Under Secretary for Rural Development**

**“Supporting the Growth of Cellulosic Ethanol for Rural Development  
and Energy Independence”**

**Thank you, Brent, for that very generous introduction.**

**I had the privilege back in July of speaking in Toronto at BIO’s World Congress on biotechnology and biobased products. I want to thank you and your colleagues at BIO for that opportunity. It was a great event. It’s good to be back with you again today.**

**“I’m from the government and I’m here to help you,” is the punch line to an old joke ... and it’s a joke that gets recycled a lot because it fits so many occasions. Like many – maybe most – good jokes, it contains an element of truth along with the humor.**

**Today, however, the reverse is closer to the mark. YOU -- the people in this room – are on the cutting edge of an extraordinary opportunity. So yes: I’m from the government and we’ll try to help you ...**

**... But let me preface everything else I have to say by emphasizing that it is YOUR vision, YOUR initiative, and YOUR leadership that is going to bring cellulosic ethanol to its full potential.**

**Not government. YOU.**

**What you are doing is profoundly important. President Bush is right: America has an expensive addiction to imported oil. It's an addiction we need to break. And we will.**

**Two weeks ago, I was in St. Louis for a conference on renewable energy sponsored jointly by USDA and the Department of Energy. Perhaps some of you were there. For those who weren't, let me say simply that the enthusiasm, the confidence, and the determination of everyone involved in this effort are truly inspiring. We ARE going to get this done.**

**The President was there to express once again his commitment to renewables, including biofuels. The President's interest goes way back:**

- **Texas is just now getting into the ethanol business with four biorefineries under construction, but Texas IS the nation's leading**

wind state -- thanks to then-Governor Bush's energy initiatives during the 1990's. George Bush isn't a newcomer to this subject.

- I had the privilege of standing with Governor Bush back in 1999 when he came to Iowa to announce his candidacy for President. He talked about energy and ethanol. Frankly, we've heard that many times before in Iowa, but this time it wasn't just campaign talk. This President "gets it" – he has since the beginning.
- The President's commitment is personal, clear, and longstanding ... from his first energy initiatives in 2001 ... the Energy Title of the 2002 Farm Bill ... the Energy Policy Act of 2005 ... and the Advanced Energy Initiative which is driving the debate today.

The President's commitment is Administration-wide. Secretary Bodman, Secretary Johanns, and Steve Johnson from EPA all joined us in St. Louis. So far as I know, three Cabinet rank officials plus the President is a first for a renewable energy conference any time, anywhere.

So the President was visiting with a lot of old friends in St. Louis. He's been on board for many years. And now the train is starting to fill up.

**The most important people in St. Louis, in fact, were 1,500 leaders from every sector of the renewable energy industry ... the oil industry ... the automobile industry ... railroads ... industrial companies like John Deere and ADM ... state and local governments ... banks and venture capitalists.**

**This breadth of interest ... this unity of purpose ... is a new thing. It reflects a realization that we ARE in a new era. This isn't the 1970's or '80's. The drive for new energy sources is driven by the market. It's real.**

**Our focus today on cellulosic ethanol is just one front in a much bigger war for energy independence. There is no single, silver bullet solution. But cellulosic ethanol -- as everyone here very well understands -- is without question one of the most promising new options on the horizon.**

**We need to make it work – and we will.**

- **President Bush set a goal in the Advanced Energy Initiative of making cellulosic ethanol cost competitive by 2012. I'm not going to climb out on a limb and predict the date this will happen – but all of us are aware of some extremely promising developments underway right now.**

- **Cellulosic ethanol is a high priority for USDA's research programs across several Mission Areas and agencies:**
  - **The Agricultural Research Service;**
  - **CSREES, which stands for the Cooperative State Research and Extension Service; and**
  - **Rural Development, particularly through our Section 9008 Biomass Research and Development Program.**
  
- **Cellulosic ethanol is also a priority for the Department of Energy, which is committing \$250 million over the next five years to create two new biofuels research centers.**
  
- **But even more importantly, it is priority for YOU -- and for many more researchers across the country and around the world.**

**Whether the answers on cellulosic ethanol will ultimately come out of a government lab, a university lab, or an industry lab, I don't know.**

**There is plenty of work for everyone, and there's enough incentive to keep us all energized. The tempo of research is accelerating. Several**

**companies have recently announced promising developments. Different processes and different feedstocks are in play.**

**The feedstocks themselves will improve over time. Plant scientists have made extraordinary advances to increase the yield on food crops. We will now be adding ethanol yield as an objective. I would anticipate the same steady progress in this area that we have seen elsewhere.**

**The probability therefore is that we will have a dynamic technology race extending well into the future. The first generation of cellulosic technology will give way to the second and the third. We are in for some surprises. There is risk involved. There is also enormous opportunity. But I am confident in the end that we will succeed. In fact, we can't afford not to.**

**Renewable energy – not just cellulosic ethanol, but renewables across the board -- is a vital national security issue. It's an economic competitiveness and balance of trade issue. It's an environmental issue.**

**And from the standpoint of rural development, renewable energy -- including but not limited to cellulosic ethanol -- is the greatest opportunity for investment, growth, and wealth creation in rural communities in our lifetimes.**

**Just consider: the United States this year will spend more on imported oil than for the entire output of America's two million farms. USDA is projecting the total value of production in the farm sector for this year at \$273 billion. We will spend more than \$300 billion on imported oil.**

**If we can replace even one billion barrels of imported oil -- that's about 20% of today's total imports -- that is a new market greater than today's net farm income. That's just biofuels. Wind -- and down the road, solar power -- add even more to the potential of renewables for rural America.**

**All of this translates into higher commodity prices for farmers ... lease payments to landowners ... jobs in construction, plant operations, and transportation ... a secure future for many thousands of young families ... more tax base for local schools and other services ... a ripple effect across the entire rural economy:**

- **Today's corn ethanol industry will consume 20% of the harvest and produce over 5 billion gallons. As of this week, there are 106 biorefineries in operation. The number is growing rapidly.**
- **Last year (in 2005), ethanol added over \$32 billion to the nation's gross economic output, created over 150,000 good jobs, and put \$5.7 billion into the pockets of American families.**
- **Those are the figures for today's corn ethanol industry. The ethanol industry of tomorrow, including cellulosic ethanol, may produce up to 60 billion gallons. That implies an infrastructure of hundreds -- perhaps a thousand or more -- biorefineries spread all across the country. That's huge. From our standpoint at USDA Rural Development, it is certainly a goal worth planning for.**

**We continue to be committed to the research effort but as we approach commercialization, we are also beginning to look beyond the laboratory.**

**At USDA Rural Development, since 2001 we have invested over \$460 million in more than 1,000 renewable energy and energy efficiency projects. We have not yet financed a cellulosic demonstration plant.**



**Like many of you, we are eagerly anticipating the opportunity to do so in the near future.**

**We have also recently launched four studies examining the broader implications of a rapid build out of distributed energy technologies.**

- 1. We're evaluating a variety of business models to see which best encourage local investment and ownership.**

**Local ownership isn't just a pipedream. It's the baseline. It's what I call the default option sitting on the shelf right now.**

**Thinking about renewable energy in general – and certainly including cellulosic ethanol – it's important to remember that farmers own the feedstocks. Rural landowners control the sites for wind and solar installations. Rural America is in a position to control its own destiny – IF it chooses to do so.**

**But in the long run, can local ownership groups compete as major corporations begin to move into the field? Will rural America participate as a vendor and earn a few more cents per bushel? Or**

**will rural America participate as a full equity partner? Are there practical, economically viable choices we can make today – as these industries begin to evolve -- to encourage distributed ownership?**

- 2. Along the same lines, we are analyzing different investment models to facilitate the aggregation of local capital – again, in order to reduce barriers to local ownership. Can we level the playing field so that smaller enterprises can engage?**

**Some people have read more into these statements than I intend, so let me emphasize that these are not either-or propositions. I am the last person in the world to stand in the way of the free flow of capital. Morgan Stanley and Citibank and Exxon are not the enemy. Large companies are – and should be -- free to invest.**

**But it is important to recognize that rural America controls an enormous amount of equity. The Farm Balance Sheet as tracked by USDA shows total farm assets of almost \$1.7 trillion ... a debt to asset ratio of just 13.1% ... and net farm equity of over \$1.4 trillion.**

**Rural America clearly has the assets to finance a healthy share of the new energy economy -- IF we can get farmers and other rural investors off the sidelines.**

- 3. Third, we want to identify and eliminate logistical bottlenecks and artificial regulatory constraints to the development of new energy resources. Anything we can do to reduce non-economic costs, transaction costs, and regulatory burdens is not only good for the industry in general – it is also especially important for startup ventures, small businesses, and local ownership groups. That makes it a special priority for us.**
  
- 4. Finally, we are sensitive to the impact of disruptive technologies on legacy systems. As an initial case study, we are studying the integration of distributed electricity production into the existing generation and transmission system. Down the road, the impact of cellulosic ethanol production on the existing transportation fuel infrastructure is likely to pose similar issues.**

**These four analyses are just a beginning. They are works in progress.**

**We don't have all the answers – but we think these issues are a good place to begin.**

**As I said earlier, we anticipate a dynamic technology race in the years to come. As an investor in rural business development, we expect to be a part of it. Very soon, we may well be partnering with some of you, and we look forward to working with you.**

**I am convinced, as I said at the outset, that renewable energy is the greatest new economic opportunity to arise in rural America in our lifetimes. The future is bright, IF we can figure out how to do it right.**

**There is opportunity here for all of us. There is work ahead for all of us. Let's get to work. Thank you.**