

Contact: Andy Baumert

**IOWA STATE UNIVERSITY BIOECONOMY PROPOSAL**

**Action Requested:** Review the proposal and consider approval as a state legislative initiative.

**Executive Summary:** Responding to the Board of Regents bioeconomy policy statement adopted at the August 2006 meeting and to directives from the Board stated at the November 2006 meeting, Iowa State University has prepared a proposal for state and federal funding to add necessary faculty and facilities for strategic research in biorenewable fuels and products. The proposal requests \$28 million in state infrastructure funding for construction of a new Biorenewables Building to house ISU's Office of Biorenewables Programs and 10 to 12 research teams. The proposal also requests \$1 million in ongoing state general funds and \$4 million in one-time general funds in the next fiscal year to hire and provide research funding for 10 new research scientists in key areas of biorenewables research. The Attachment provides additional details.

Related to the proposal, ISU is pursuing federal funding to develop the nation's first integrated, sustainable biofuels feedstock demonstration farm. The New Century Farm proposal requests \$14 million in federal infrastructure funding and \$2.5 million in annual federal research support funding.

**Iowa State University**

**Seizing the Opportunity  
Establishing Iowa as the World Leader in Renewable Fuels**

**The Opportunity**

Iowa stands on the threshold of an opportunity of unparalleled magnitude in its history. With the right planning and actions, Iowa can become the world's leader in the development and production of fuels derived from plants, and in so doing profoundly impact the economy of Iowa for decades to come. But seizing that opportunity, and staying ahead of the fast growing competition, requires immediate action by Iowa's leaders on a number of strategic investment and public policy decisions.

Iowa has responded with vigor to this opportunity and is now the nation's leader in producing ethanol from corn grain, primarily because Iowa is the leading corn-producing state. But that natural advantage will quickly erode as the shift is made to producing ethanol and other biofuels from the fibrous parts of plants (stems, stalks, leaves, etc.) and as specialty crops are developed that produce huge amounts of plant fiber, rather than grain. But Iowa will always be the best place to grow plants and can keep its current leadership position, if strategic decisions are made now.

Imagine a future with Iowa as the world's center for renewable fuels and related chemicals and products – the center of production, research, and education, leading to the creation of new industries in the bioeconomy. This developing industry will bring high-paying jobs, a needed diversification of Iowa's economy, and enhanced rural development because the biorefineries of the future will need to be located close to where the plant fibers are produced. The opportunity is huge, with significant economic impact in every corner of the state, but only if Iowa acts quickly.

**Investments Needed Now**

A number of key policy recommendations were made in the Nov. 28, 2006, *Call to Action Summit – Ensuring Iowa's Leadership in the Bioeconomy*. These policy ideas should provide the foundation for Iowa's leaders to position Iowa for the biorenewable fuels future. It is also essential for Iowa's leaders to strategically invest in research and in the intellectual horsepower that will fuel the growing bioeconomy in Iowa. Much of that intellectual capital resides in the research scientists and policy experts at Iowa State University, which began its own investments in biorenewables a number of years ago. Those strategic investments have paid off handsomely and have put Iowa and ISU in a global leadership position in biorenewables, as evidenced by the number of major international companies competing to partner with Iowa State to take advantage of our knowledge and brainpower.

But states all over the nation, and especially here in the Midwest, are also making large investments in university facilities and research in biorenewables, so that they can capture the strategic advantage that Iowa now enjoys. Minnesota, for example, has already committed \$20 million to the University of Minnesota's Initiative for Renewable Energy and the Environment and Ohio has awarded \$11.6 million to fund the Ohio Byproduct Innovation Center at the Ohio State University.

It is imperative that Iowa not surrender its current leadership position, especially as we enter the bioeconomy future based around plant fiber and cellulose. To ensure Iowa's continued leadership in renewable fuels, strategic investments are needed now in targeted research and education at Iowa State, in the following areas:

1. **\$5 million in state general funds** to hire and provide research funding for at least 10 new research scientists. These appointments will be focused in the key areas of biorenewables that are critically important for the renewable fuels industry of the future focused on energy production from plant fibers and cellulosic biomass. These funds will support the faculty salaries and the accompanying infrastructure required for the success of the research teams. The \$5 million is proposed to be comprised of \$1 million in ongoing general fund support and \$4 million in one-time general funds.
2. **\$28 million in capital funding** to support the construction of a new Biorenewables Building to house Iowa State's Office of Biorenewables Programs and the research laboratories for 10-12 research teams working in renewable fuels. The remainder of the new faculty will be housed in existing space elsewhere on campus.

#### **Iowa's Return on These Investments**

Our nation must reduce its dependence on foreign oil, and replace oil-derived fuels and products with those derived from plants. This will be a shift of unprecedented magnitude in recent history and one that will impact every aspect of our society and economy. And it is certain that one region of our nation will emerge as the center of this huge industry, reaping economic benefits that will rival what the oil industry did for Texas and Alaska, and what Silicon Valley did for California.

Iowa can be that center of this biorenewables revolution, building on its already strong leadership position. With strategic policy decisions and investments, like those outlined above, Iowa can solidify that position and move rapidly to becoming the world center of the new bioeconomy. The effect of these investments at Iowa State will be powerful, leveraging many-fold additional investments in Iowa from corporations, venture capitalists, individual entrepreneurs, and the federal government, and in so doing create economic opportunity at an unprecedented level. There is urgency to act, and both the investments and policy decisions must be made now. Other states are working hard to overtake our current leadership, and Iowa must not let that slip away, along with the many opportunities that come with it.