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State policy alternatives for biofuels industry support of sustainable production of biofuels feedstocks

Abstract
The project examined six public policy options that reward linking the growing bioeconomy to environmental stewardship.

Keywords
Bioeconomy and energy, Policy

Disciplines
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Are there public policy options that reward linking the growing bioeconomy to environmental stewardship?

Three public policy options that show promise for linking the bioeconomy with environmental stewardship involve the corn check-off, tax credits, and compliance requirements.

Background

The proposed rapid development of major new markets for biomass to produce energy has raised several concerns about natural resources conservation: increased soil erosion; maintaining long-term soil productivity; water quality degradation; land use and cropping changes; and potential loss of wildlife habitat. Additional investments in conservation services are essential to prevent or mitigate serious problems that could result from biomass industry expansion. Iowa’s unique conservation challenge comes from being in the forefront of and setting the precedents that define cellulosic ethanol technology and perhaps a larger biomass industry.

The project did not explore every environmental need, but focused on the fundamentals of on-farm conservation planning associated with soil and water conservation practices. The aim was to identify and refine biofuels policy ideas that can gain support and better protect the environment. This project explored six public policy options for meeting the growing environmental stewardship needs that arise from large-scale biomass energy and cellulosic ethanol projects.

Approach and methods

Beginning in 2008, a series of interviews were conducted by Duane Sand, Policy Director of the Iowa Natural Heritage Foundation. Sand interviewed more than 40 biomass industry representatives and professional conservationists at length about the six policy options. Interviews were conducted by personal appointment or in small discussion groups. While some interviews were specifically arranged, others were informal and spontaneous as Sand found opportunities to discuss this important topic with knowledgeable people in the course of working on other projects.

In 2010, Sand decided to gain additional insight from talking with attendees at the Biofuels Summit, the Iowa Water Conference, and a conservation activism day at the Iowa Statehouse. This allowed him to add interviews with about 60 more people and observe even greater depth and diversity of attitudes from individuals who are closely connected with biomass, agriculture and conservation. Roughly one-third of participants in these conversations were selected from each of these three categories:
renewable fuels industries
agricultural producers
conservation professionals or volunteers.

The interviews were not intended to provide data similar to an opinion poll or statistically significant survey. Rather, they gave personal insights that could inform the feasibility of possible policy options that also might be accepted by important constituencies. The six proposed policy options were contained in the original grant proposal to the Leopold Center. The interview responses helped test and narrow the six options and refine them further. The final product of this project was to be a written report from the interviews that would provide a “road map” for the policy alternatives tested, as well as other policy ideas that may arise from the interviews. (The “road map” is summarized in the Conclusions section.)

Results and discussion
Here are the six general policy options explored during this project and subsequent developments related to them:

1. General fund appropriations based on the economic growth of the biofuels industry. By March 2009, this was not viable due to the recession and its multi-year impacts on state revenues when conservation budgets experienced a large cut. By March 2010, general fund increases for conservation were considered unlikely for several years due to a 10 percent reduction in state revenues and spending. Priority will be given to restoring services in programs other than conservation in coming years.

2. State income tax credits to biofuels processors for support of state-approved programs, based on redirecting current tax credits. By March 2009, this was deemed not viable, as state revenues were being carefully protected due to the recession and its multi-year impacts on state revenues. However, by spring 2010 the Iowa General Assembly, driven by the need to increase state tax revenues, had passed significant tax credit reforms. In 2011, Republicans in the Iowa House of Representatives are showing a great deal of interest in income tax credits.

3. General fund appropriations based on redirecting current agriculture/biofuels subsidies. By March 2009, this was deemed not viable. Due to economic pressures on state revenues, any changes in subsidies were likely to go to higher priority issues than conservation.

4. A voluntary system of pricing and procurement policies to reward farmers for environmental management systems and sustainable production (verified through independent third-party certification programs). By spring 2010, this was not viable. This approach was rejected by POET, LLC which had Iowa’s first cellulosic ethanol plant under development, and also had plans to add this technology to six other Iowa plants it operates.

5. Conservation compliance requirements for earning state or federal subsidies. [Example: Cellulosic ethanol plants would be required to pay the cost of updating conservation plans for the farmer harvesting biomass for sale to the biorefinery.] This option may be viable. See below.

6. A biofuels check-off fund and industry board to invest in research, education, and demonstration necessary for sustainable production of biofuels feedstocks. [Example: Similar to the corn and soybean check-offs that helped create the biofuels industry, a fraction of 1 percent of the biofuel market value would be
collected at the time of sale with an annual refund option available.] This option may be viable. See below.

**Conclusions**

The following public policy recommendations were generated by the project participants. These are offered as potentially viable policy options, given the current political and economic constraints.

1. *The Iowa Corn Promotion Board (ICPB) is the logical model for support of conservation planning for sustainable biomass production for those who favor private sector responsibility.*

   Commodity check-off programs are quasi-governmental institutions for private sector economic development. They are not public agencies. Those who profit from the industry are assessed point-of-sale fees to fund some of the development needs of the industry. The industry elects its own leaders to administer the funds and make strategic investments for the growth and profitability of the industry. There are provisions for producers to have their assessments refunded if they do not support the ICPB programs. Iowa’s Secretary of Agriculture, and other elected leaders should encourage the ICPB to help fund some conservation planning innovations until government conservation budgets have stabilized.

2. *Iowa lawmakers should develop conservation tax credits to provide incentives and partner with conservation planning and implementation of plans by the private sector.*

   Many interviewees thought that lawmakers should be assuring that more of the wealth generated from the land returns to sustain the productivity of the land and improve our environment. The development of biomass energy means Iowans will expect more production from more acres of land than ever before. Many people believe it is unethical for society to take so much wealth from the land without safeguarding the needs and opportunities of future generations regarding the land. There is a stewardship ethic guiding many farmers and farmland owners, who want to leave the land better than they found it for the benefit of future Iowans.

   It will be important for Conservation Districts of Iowa to look beyond appropriation requests and also work for effective income tax incentives for conservation. This seems to offer the best opportunity for economic growth to actually stimulate conservation investments.

3. *Greater conservation requirements should be attached to government biomass subsidies.*

   Most participants were not enthusiastic about regulation of new biomass markets, but believed that those receiving public subsidies should be held to a higher standard. With public funding, there should be accountability to monitor the production acres for the presence of state-of-the-art farm conservation plans and for progress toward implementing the practices needed for sustainable biomass production. Taxpayer and energy consumers should have the right to evaluate the degree to which biomass energy investments and purchases are improving or degrading the environment. Lawmakers and administrators providing subsidies should require conservation accountability, even when the responsibility for conservation progress is assigned to the private sector.
Impact of results

The Iowa Natural Heritage Foundation will continue to pursue these concepts through active involvement in conservation policy. As far as is known, there has been no prior advocacy for a “check-off approach” to help prevent soil and water impacts where biomass is being intensively harvested. There will be value in comparing the strengths of that approach with traditional funding approaches for conservation planning.

When this project began, several biomass projects had been projected to begin, but none have moved at the pace predicted when they announced their plans. This creates a problem for those wanting to establish timelines or action on new policies. It will be difficult to gain traction on the policy recommendations in this study until a major biomass plant has its ribbon-cutting ceremony.

Leveraged funds

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