080077

City of Milwaukee

INTERDEPARTMENTAL CORRESPONDENCE
LEGISLATIVE REFERENCE BUREAU

Memorandum

To: Ald. James A. Bohl, Jr.

From: Michael Talarczyk, Legislative Fiscal Analyst

Date: June 26, 2008

Re: Ethanol Talking Points

File #080077 is a resolution drafted at your request expressing City of Milwaukee support for efforts to discontinue federal corn ethanol mandates, cease incentives for corn ethanol production and end tariffs on imported biofuels. This file was introduced at the May 20, 2008, Common Council meeting and assigned to the Judiciary and Legislation Committee.

At the Committee's June 2 meeting, the resolution was held to the call of the chair with no discussion. A motion that the resolution be substituted was passed at the Committee's June 23 meeting. However, the resolution was again held to the call of the chair for "one cycle in the hopes that those individuals who were noticed in opposition to this item will attend."

While researching and drafting this resolution, supplemental "bullet points" were prepared, representing additional supporting arguments in support of File #080077. For your benefit, these bullet points have been updated and are presented below.

GENERAL DATA/INFORMATION

- In 2007, the U.S. produced 7 billion gallons of ethanol, which cost taxpayers an estimated $8 million in subsidies.
- The United States is the world's largest producer of ethanol, followed by Brazil.
- 95% of ethanol used in U.S. in corn-based.
- 2007 saw the most acres in corn production – 94 million – since WWII, producing a record crop of 13.2 billion bushels of corn.
- In 2007, over 20% of the corn harvest was converted into ethanol, double the amount five years ago.

- Ethanol is 30% less efficient, i.e., 30% less miles-per-gallon, than gasoline.

- Corn ethanol has by far the worst "energy balance" ratio (energy in versus energy out) at 1:1.3. This compares to biodiesel at 1:2.5, and sugarcane at 1:8. Cullulosic ethanol ranges from 1:2 to 1:36.

- There are 154 ethanol refineries operating today, up from 68 in 2003. 68 are under construction. Wisconsin currently has 9 ethanol refineries in operation.

- Archer Daniels Midland is the largest player in the market, processing roughly 40% of the ethanol blended in America.

- Eight firms control 90% of ethanol production.

- 84% of U.S. farmers see no financial benefit from current ethanol policy.

- December 2008 corn futures, representing the fall 2008 corn harvest, were at $7.54 per bushel as of 6/25/08. In November 2007, this figure was at roughly $4.20 per bushel. In early June 2008, prior to the heavy rains and flooding that hit the Midwest, December corn futures stood at roughly $6.50 per bushel.

FUEL VERSUS FOOD

✓ Ethanol mandates essentially set up years of competition between food and fuel for agricultural land.

✓ Less than 2% of U.S. corn crop is eaten directly by humans; more than 50% feed animals.

✓ Incentives for corn production serve as a disincentive for other crops – fewer acres for fruits, vegetables, soybeans, alfalfa, etc.

✓ The Wall Street Journal asserts ethanol production has led to "unprecedented levels of financial speculation in grain futures markets."

✓ The price of crops is now heavily determined by their value as a feedstock for ethanol rather than their value as human food or livestock feed.

✓ Because corn is the primary feed for livestock, this translates into higher prices for all meats, poultry and dairy – beef, chicken, turkey, pork, milk, cheese, eggs.

✓ Worldwide, use of food for biofuels particularly impacts those countries which are net food importers or experience regular food shortages.

✓ The United Nations has termed crop-based ethanol a "crime against humanity."

✓ The World Bank states that global food prices have risen 85% in past 3 years.

✓ Four years ago, researchers at the University of Minnesota forecast that the ranks of the hungry would fall to 625 million in 2025. After adjusting for inflationary effects of biofuels, they have raised that prediction to 1.2 billion.

ENVIRONMENTAL CONSIDERATIONS

- Corn requires large doses of herbicide and nitrogen fertilizer (made with natural gas), heavy use of farm machinery, much water, and causes more soil erosion than any other crop.

- On average, farmers apply more than 140 pounds of nitrogen fertilizer over 1 acre of corn. It is estimated that roughly 30 pounds of that fertilizer "leaks" – runs off into creeks, rivers and lakes.

- Ethanol conversion process gives off large amounts of carbon dioxide. Most ethanol plants burn natural gas or coal to create the steam that drives the distillation, adding fossil-fuel emissions to the carbon dioxide emitted by the yeast.

- Ethanol mandates encourage farmers to plow up marginal farmland, leading to destruction of forests, wetlands and grasslands that store significant amounts of carbon.

- There are 39 million acres in the Conservation Reserve Program. Rising corn prices serve as a disincentive to continue in the program. Of the 5 million acres that came up for renewal in the program in 2007, only half were reentered.

- Because there are no major pipelines, transportation costs for ethanol – via truck, rail or barge – are high.

- According to a 2007 study at Arizona State University, "a gallon of corn-based ethanol requires 785 gallons of water just to irrigate the corn. By comparison, a gallon of gasoline uses 2 to 2.5 gallons of water in its refining process."

- United States ethanol policy initiates a destructive worldwide chain reaction: ethanol mandates encourage corn production, which leads to U.S. soybean farmers switching to corn, leading South American soybean farmers to expand into cattle pastures, leading South American cattlemen to expand into forests.

- Because of the high-energy cost of production, University of Minnesota researchers estimate that converting the entire U.S. corn crop into ethanol would reduce net fossil fuel use by only 2.4%.

- A Science magazine study concluded that the net impact of corn ethanol on carbon dioxide levels appears to be worse than sticking with oil.

- A Princeton University study concluded that corn ethanol doubles greenhouse gas emissions over 30 years and increases greenhouse gases for 167 years.

TARIFFS

- Though many poor nations have natural conditions to grow cane ethanol, current U.S. 54-cent tariff serves as a disincentive.

- Sugarcane-based ethanol provides 45% of Brazil's fuel on only 1% of its arable land.

- Sugarcane yields 600 to 800 gallons of ethanol per acre, more than twice as much as corn.

CONCLUSIONS

Following are typical general criticisms of corn ethanol:

✓ The ethanol push was meant to move America toward energy independence and mitigate global climate change. It has done neither. Rather, it is causing environmental harm and contributing to a growing global food crisis.

✓ American promotion of ethanol represents a trifecta of bad regulation: arbitrary production targets to increase demand, subsidies that encourage inefficient use of crops as fuel rather than fuel, and tariffs that stifle foreign competition.

✓ The only way to reap the benefits of biofuels without squeezing the food supply is to take food out of the picture (i.e., cellulosic or algae). Mandating production combined with subsidies to ethanol acts as an implicit tax on food. U.S. farmers should be exporting food to developing countries rather than growing fuel.

✓ The corn mandate has failed on all fronts. It has not decreased our dependence on foreign oil, has adversely affected the food supply and food prices, and been destructive for the environment – both here in America and worldwide.

✓ According to a 2007 article in National Geographic, planting all U.S. farmland in corn and converting to ethanol would replace only 12% of gasoline consumption. That kind of reduction, rather than displacing a critical food source and creating havoc on the environment, could be achieved through vehicle efficiencies, promoting public transportation and encouraging people to live closer to work.

Please contact the Bureau if you have any questions or would like further information.

LRB08194