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James Boyd, Vice Chair; Presiding Member, Transportation Committee  
Karen Douglas, Commissioner; Associate Member, Transportation Committee  
California Energy Commission  
1516 Ninth Street, MS-4  
Sacramento, CA 95814-5512

**DOCKET**

**08-ALT-1**

DATE JAN 23 2009

RECD. JAN 25 2009

Re: AB 118 Draft Investment Plan

As a farmer, school teacher, and lifelong resident of Kern County, and as President of the Association of Irrigated Residents, an association of people from five San Joaquin Valley counties who advocate for cleaner air, and as a member of the AB 118 Advisory Committee, I wish to submit the following comments on the Draft Investment Plan.

Regarding future goals to increase ethanol in gasoline I see nothing but problems regardless of whether it is corn based ethanol or cellulosic ethanol. I think the goals should be more realistic and not depend on any decreases in the carbon content of fuel from greater use of ethanol. Corn ethanol especially should be completely off the table in very clear language and it is not. Corn ethanol plants proposed for the San Joaquin Valley will increase local pollution and produce a product that does not lower the carbon content of our fuel when a full cycle analysis is done including changes in land use. There is plenty of evidence for that basic conclusion. Rising food prices and the need for continued taxpayer subsidies also makes ridiculous the idea that increases in corn ethanol as part of California's fuel supply should be part of this investment plan. It would actually be an improvement environmentally and economically if California did away with corn ethanol totally in our current fuel supply. I will attach at the end of these comments a recent study showing that feeding the byproduct of corn ethanol to cattle increases a deadly form of E. coli in the gut of the animals. This is one more nail in the coffin of corn ethanol. If local dairies will not buy feed with the wdg, and why would they with this news, then the energy ratio of corn ethanol is even more negative.

Cellulosic ethanol from biomass grown in the San Joaquin Valley is also without promise. There is no water supply to grow this biomass directly on our marginal farmland as some have speculated. There is also no surplus biomass from current crops in any amount suitable for sufficient ethanol production. The best use of surplus crop biomass is to return it to the soil. It saves on the importation of fossil fuel based fertilizer and the associated global warming emissions and it also saves on water and pesticide use and gives us a healthier food product. Any carbon gains in our fuel supply from hauling this biomass out of the fields and transforming it into ethanol or hydrogen are more than cancelled by these savings.

Forest surplus biomass will have limited value because of the almost impossible task of removing that biomass to conversion plants and getting any economic or energy gain.

There may be some marginal soils in the SJV where a perennial crop for biomass can be grown with marginal water. I can see some seed money for experiments in this area, but if this marginal soil is degraded further because of the irrigation with marginal water, it is not sustainable and worthless.

I hope the investment plan will take into account that the money for investment comes disproportionately or regressively from low income people. It is often these same low income people who will be the last to benefit from the new technologies, fuels, and vehicles that the investment plan is designed to stimulate. There is a very real possibility that the San Joaquin Valley could see more pollution coming to the valley from biomass fuel plants or corn ethanol plants and see little, if any, of the air improving effects of the early actions designed to introduce cleaner and lower mileage vehicles into the state vehicle fleet. I would recommend language in the plan that somehow gives greater ranking for funding allocation to lower income parts of the state and more polluted parts of the state. I am thinking specifically of the southern end of the San Joaquin Valley.

We should not just hope for trickle down effects of new technology to every part of society. Perhaps where an incentive is being provided for small, clean vehicles to be used by people in commuting to work, a San Joaquin Valley town can be selected as a demonstration project. This will not be the kind of area chosen first by companies from the major metropolitan areas but a slightly greater incentive for locating in low income, and more polluted areas of the state may make a difference.

Here is the news article on corn ethanol which should be considered before doing anything that would increase the proliferation of corn ethanol plants in the rich farming area of the San Joaquin Valley. The E. coli problem makes the cows sick so it increases the need for more antibiotics to protect the milk and it also threatens nearby crops grown for human food because flies can carry the E. coli bacteria.

[http://minnesota.publicradio.org/display/web/2008/10/17/e\\_coli/](http://minnesota.publicradio.org/display/web/2008/10/17/e_coli/)

### **USDA study confirms link between ethanol by-product and E. coli**

by [Mark Steil](#), Minnesota Public Radio  
October 17, 2008

**A U.S. Agriculture Department study shows a significant increase of potentially harmful E. coli bacteria in cattle that are fed an ethanol by-product known as distiller's grain. Distillers grain is a common ingredient in cattle feed. But researchers say it's too soon to know whether cattle producers should change the amount of distiller's grain they feed to their herds.**

St. Paul, Minn. — The study was conducted at the USDA's meat research center at Clay Center, Nebraska. USDA researcher Jim Wells said his team studied 600 steers. Half the group was fed corn; the other half ate feed that contained 40 percent distiller's grain. The scientists tested the animal's fecal matter.

They were on the lookout for one of the most dangerous forms of the bacteria; E. coli 0157:H7. It can cause a wide range of illness in humans, even death. Wells said the steers fed the distiller's grain ration had more of the harmful E. coli in their digestive tracts. And he attributes that increase to the heavy ration of the ethanol by-product.

"I do believe that for the most part the difference is probably due to diet," said Wells. "But whether or not all of the difference is due to diet we cannot say."

Wells said the study found E. coli in almost 15 percent of the samples from the distiller's grain group. That compares to 1.5 percent in the corn-fed group.

The USDA findings are in line with several other university studies which show a link between distiller's grain and an increased occurrence of E. coli.

Distiller's grain is basically what's left of the corn kernel minus the starch. An ethanol plant converts the starch to sugar and then ferments it.

Wells said it's too early to make any recommendations to cattle producers on whether they should adjust their use of distiller's grain in their cattle feed.

"The point of the study isn't necessarily to say that what someone is doing is bad, it's just to make the people aware that there are consequences," said Wells. "I don't know if I could tell them to change it, because there are advantages to feeding distiller's grain."

One of the most significant advantages is that distiller's grain in most cases is a cheaper form of cattle feed than some of its competitors.

That's important to cattle producers at a time when it's been difficult to make a profit in the business.

It's also important to ethanol companies. They want to sell all the distiller's grain they can, because it helps boost their overall profit.

University of Minnesota associate professor Francisco Diez said the USDA report appears to show conclusively that there is a link between distiller's grain and the prevalence of E. coli.

"Under experimental conditions, yes this effect seems to be real," said Diez. "Seems that it stimulates the number of animals positive for E. coli 0157."

It's not known what role, if any, distiller's grain played in recent E. coli outbreaks. There was a sharp spike in the number of E. coli beef outbreaks in the U.S in 2007, 21 compared to just a half dozen or so the year before.

U.S. Agriculture Department did not return a request for comment. In the past USDA officials have indicated that they do not plan to regulate cattle producer's use of distiller's grain in feed rations. They've said producers themselves can decide that for themselves.

Tom Frantz