

WebMemo



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Time for Second Thoughts on the Ethanol Mandate

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America's energy policy has been on an ethanol binge, and now the hangover has begun. The federal renewable fuels mandate is an unfolding failure, and more Members of Congress are taking notice. If repeal of the mandate is not yet possible, Congress should at least freeze ethanol use at current levels while the nation reassesses its renewable fuels policy.

Background. Mandates for renewable fuels, chiefly ethanol derived from corn, have steam-rolled through Washington as few other issues have in recent years. The 2005 energy bill contained the first-ever requirement that these fuels be mixed into the nation's gasoline supply. Beginning in 2006, the mandate came on top of massive subsidies and tax breaks already enjoyed by domestic ethanol producers.

The mandate quickly proved to be a mistake—raising rather than lowering fuel costs, sparking food price inflation, and invoking environmentalist opposition during its first two years. Nonetheless, a bill to increase the requirements nearly fivefold passed Congress easily and was enthusiastically signed by the President in December 2007. Thanks to this measure, America is now committed to 9 billion gallons of renewable fuels in 2008 and 36 billion by 2022. For at least the next few years, almost all of this mandate will be met by corn ethanol.

Notwithstanding Washington's strong support, ethanol's real-world drawbacks are not going away. In fact, they are only getting worse with the increased volumes.

As a general rule, it is hard to undo things in Washington, especially when the beneficiary is the agricultural sector. Farm programs from the New Deal era are still firmly in place despite having long ago ceased to make any sense. Repeal of the renewable fuels mandate, or even a relaxation of its targets and timetables, should be considered a long shot.

However, the many problems with the policy have sparked broad opposition, and Members of Congress are also having second thoughts. The powerful ethanol lobby just might get a run for its money.

Higher Costs of Driving. The anger over high gasoline prices was the main impetus behind the 2005 and 2007 energy bills and their successively higher ethanol mandates. The public may have mistakenly assumed that ethanol is cheaper than gasoline, but reality is beginning to hit home. When everything is taken into account, including the lower fuel economy from ethanol-blended fuel, the mandate is adding to the cost of driving—which is precisely why ethanol had to be mandated in the first place.

The AAA calculates that ethanol has recently cost 20 to 30 cents per gallon more than regular gas-

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oline.¹ And that does not take into account the heavy taxpayer subsidies, including a 51-cent-per-gallon tax credit, without which ethanol would be even costlier.

Proponents insist that economies of scale will kick in and make ethanol more affordable as the mandated levels are ratcheted up, but there is no sign of that actually happening. The opposite is more likely. For example, ethanol costs more to transport than gasoline, and the expanding mandates necessitate usage well outside of its Midwestern home base.

Ethanol is also more expensive to use in the summer: It contributes to smog and in several markets can be used only with a costlier base blend that compensates for this shortcoming; but this blend must be used year-round. Over the longer term, the law requires that corn alternatives like cellulosic ethanol be used as well. Cellulosic ethanol—made from certain grasses, wood, or crop waste—is currently far more expensive than even corn ethanol.

It is only a matter of time before the public realizes that the mandate is contributing to their pain at the pump. The media are belatedly picking up on this point. Eventually, Members of Congress—at least those outside of the 10 or so Midwestern states where much of the corn and ethanol production is concentrated—will realize that the mandate is a lousy deal for their constituents, and they may want to do something about it.

Higher Costs of Food. Not surprisingly, diverting corn from food to fuel use has raised food prices. At a little over \$2 per bushel when the 2005 law was signed, the price of corn has surged above \$5, primarily because a quarter of the crop is now used to produce energy. A host of corn-related foods, such as corn-fed meat and dairy, have seen sharp price increases. Wheat and soybeans are also up, partly as a result of fewer acres being planted in

favor of corn. There's talk of inflation rising to levels not seen in decades as renewable mandates have conspired with other factors to drive up food prices.

For corn farmers, the mandate has exceeded their wildest dreams, but for consumers, it has been an expensive double-whammy—higher costs to drive to the supermarket and higher prices once you're there. A recent study from Purdue University puts the added food cost from the renewable mandate at \$15 billion in 2007—about \$130 per household.² And that was from ethanol usage at a fraction of what will be required in the years ahead.

Globally, with nearly a billion people at risk for hunger and malnutrition, the costs are far higher. Several anti-hunger organizations have weighed in heavily against current policies. An August 2007 United Nations report warns of “serious risks of creating a battle between food and fuel that will leave the poor and hungry in developing countries at the mercy of rapidly rising prices for food, land, and water.”³ There is evidence that this may already be happening, including food-related rioting in Mexico, Indonesia, Egypt, and the Philippines.

The food-versus-fuel critique of the renewable fuels mandate is persuasive from a consumer and humanitarian perspective, but high corn prices have done something that may prove even more powerful politically: They have split the farm lobby. The poultry, hog, beef, and dairy producers who buy corn as feed have felt the pinch,⁴ and they are fighting back. For farm-state legislators who are otherwise hesitant to take on the powerful corn lobby, this increases their incentive to join their urban colleagues in reconsidering the mandate.

Environmental Damage. Ethanol was promoted in part for its environmental benefits: lower pollution and reduced greenhouse gas emissions relative to gasoline. That is why the growing chorus of

1. See the AAA's “Daily Fuel Gauge Report” at www.fuelgaugereport.com.

2. Corinne Alexander and Chris Hurt, “Biofuels and Their Impact on Food Prices,” Purdue University, September 2007, at www.ces.purdue.edu/extmedia/ID/ID-346-W.pdf.

3. United Nations General Assembly, “Report of the Special Rapporteur on the Right to Food,” August 2007, p. 2.

4. See Ruthie Ackerman, “Corn Cuts Into Pilgrim's Pride,” *Forbes.com*, March 12, 2008, at www.forbes.com/markets/2008/03/12/pilgrims-pride-chicken-markets-comm-cx_ra_0312markets25.html.

environmentalist criticism of the mandate is particularly noteworthy.

Many environmental organizations have raised concerns about the increased inputs of energy, pesticides, and fertilizer to grow more corn.⁵ The same is true for the stress on water supplies, especially now that corn production is being expanded in locales where rainfall is insufficient and irrigation is needed.⁶ Even land that is now protected under federal conservation programs may soon be cleared for corn.⁷ In addition, the facilities that turn corn into ethanol create emissions issues of their own.

These and other impacts on the land, air, and water have already raised serious concerns—and we are only one-quarter of the way toward the eventual 36 billion gallon target.

Even worse is the turnabout on the major environmental issue of the day: climate change. Proponents of ethanol claimed that it is responsible for lower carbon dioxide and other greenhouse gas emissions than the gasoline it displaces. But several studies have challenged that assertion, including two recently published in the same issue of *Science*.⁸ One finds that clearing lands for energy crops creates a so-called carbon debt by “releasing 17 to 420 times more carbon dioxide than the annual greenhouse gas (GHG) reductions that these biofuels would provide by displacing fossil fuels,”⁹ while the other estimates that “GHG emissions from corn ethanol nearly double those from gasoline for each km driven.”¹⁰

Not all environmental groups have abandoned ethanol, at least not entirely. Several believe that

cellulosic ethanol will one day be environmentally superior to its corny cousin, but that is only speculation. Assuming that it can be produced cost-effectively, cellulosic ethanol may also prove to be a green disappointment.

In any event, environmentally minded legislators who bought into the benefits of corn ethanol now find themselves at odds with the likes of the Nature Conservancy and the Sierra Club. This can only help the anti-ethanol coalition.

Conclusion. Beyond the direct beneficiaries—corn growers and ethanol producers like Archer Daniels Midland—the ethanol mandate retains some supporters. For example, those who place a high value on the national security benefits of producing domestic ethanol to supplant oil imports have largely shrugged off the difficulties. But for a growing number of people, including some who had supported the mandate, the many problems, trade-offs, and unintended consequences have proven too great to ignore. Even those who see benefits have to ask themselves whether they are outweighed by the costs.

Before the costs get any higher, it is time for Congress to rethink its approach. If repeal of the mandate is not possible, freezing ethanol use at current levels would at least help to prevent additional harm while the nation reassesses its renewable fuels policy.

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5. See Paul Rauber, “Decoder: Corn-fed Cars: Detroit’s Phony Ethanol Solution,” *Sierra*, January/February 2007, at <http://www.sierraclub.org/sierra/200701/decoder.asp>.
6. See Environmental Defense Fund, “Potential Impacts of Biofuels Expansion on Natural Resources: A Case Study of the Ogallala Aquifer Region,” 2007, at <http://www.edf.org/page.cfm?tagID=1550>.
7. *Ibid.*, p. 1.
8. Joseph Fargione *et al.*, “Land Clearing and the Biofuel Carbon Debt,” *Science*, Vol. 319 (February 29, 2008), pp. 1235–1238; Timothy Searchinger *et al.*, “Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change,” *Science*, Vol. 319 (February 29, 2008), pp. 1238–1240.
9. Fargione *et al.*, “Land Clearing and the Biofuel Carbon Debt,” p. 1235.
10. Searchinger *et al.*, “Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change,” p. 1239.