



Realizing the Promise of **CLEAN BIOFUELS**

Biofuels tax policies must be reformed to cut pollution and save oil



Today's biofuels tax credits are expensive and ineffective. Sending billions of dollars in tax subsidies to oil companies merely to comply with existing law, these tax credits deliver few if any benefits to farmers, biofuels producers, or the environment. They should be eliminated, and new policies—which reward the biofuels industry based on its performance in replacing oil and reducing global warming emissions—should be established. In particular, a Biofuels Performance Tax Credit would clean up all types of biofuels, save billions of taxpayer dollars, and spur investments that upgrade existing biofuels-production technology.

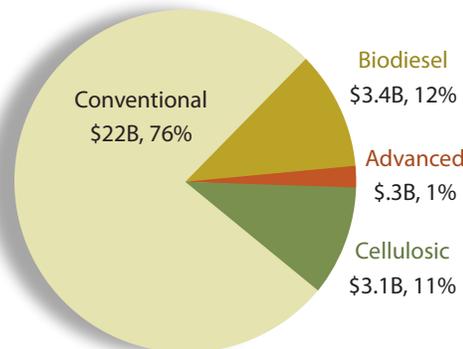
Current Tax Credits Fail to Promote Biofuels or Deliver Economic Benefits

Today's biofuels tax credits, specifically the Volumetric Ethanol Excise Tax Credit (VEETC), fail to increase biofuels production or provide economic assistance to farmers. Because fuel marketers are already required to purchase large volumes of biofuels under the national Renewable Fuel Standard (RFS), current tax credits do not lead to higher levels of production—despite costing taxpayers more than \$5 billion per year if extended. As a report by the U.S. Government Accountability Office put it: "VEETC does not stimulate the use of additional ethanol under current market conditions."¹

Moreover, the benefits of the tax credits go entirely to the oil companies that blend the fuels, as opposed to the biofuel producers and farmers (who grow the feedstocks), thereby eliminating any economic benefits for rural communities. This conclusion is confirmed by a report of the Iowa State University Center for Agriculture and Rural Development, which found that "biofuel producers will receive little or no additional benefit from tax credits."² It does not make sense to give taxpayer dollars to a mature industry when current law already requires it to purchase biofuels. In effect, oil companies are being paid just to obey the law.

Finally, current tax policies have overwhelmingly supported conventional corn ethanol—a mature industry that now accounts for about 7 percent of U.S. motor-fuel consumption. If current tax credits were extended through 2014 and fuel volumes matched the levels mandated in the RFS, conventional biofuels such as corn ethanol would receive almost \$22 billion in tax credits (more than three-quarters of the total), as shown in the figure, while biodiesel would get \$3.4 billion (12 percent) and the struggling cellulosic biofuels category only 11 percent—despite the fact that the \$1.01-per-gallon tax credit for cellulosic biofuel is more than twice the \$0.45 per gallon VEETC. In fact, because production volumes of cellulosic ethanol are falling far short of RFS mandates, the distribution of funds is likely to be even more lopsided.

Four-Year Cost 2011–2014 (2009\$)
RFS Volumes, Current Tax Credits Extended



VEETC does not stimulate the use of additional ethanol.

U.S. Government Accountability Office, August 2009

Current Tax Credits Are Incapable of Launching a Clean Biofuels Industry

The promise of future tax credits has not been enough to encourage investors to support new technologies such as cellulosic biofuel. Making matters worse, the cellulosic biofuels tax credit is scheduled to expire in 2012, so potential investors cannot count on it for plants that will not start operating until after the credit may have expired. As a result, the current tax regime does not provide cellulosic biofuels with the necessary support to attain commercial scale; nor does it provide any incentive for producers of conventional corn ethanol to do anything that is not already required by the RFS.

The Biofuels Performance Tax Credit: Rewarding Better Performance

Because biofuel production is mandated by the RFS, it makes sense to end the current tax credits and instead support biofuels producers that differentiate themselves by going *beyond* the requirements of the RFS. A Biofuels Performance Tax Credit would reward the industry for achieving two primary goals: replacing oil and reducing global warming pollution.

Specifically, the Biofuels Performance Tax Credit of \$10 per million Btu would be based on the extent to which biofuels replace oil and reduce global warming emissions. The maximum tax credit works out to \$1.15 per gallon of gasoline replaced, but to qualify for this whole credit a biofuel must have zero emissions on a full life-cycle basis. All biofuels would be eligible, but they would get partial payment in proportion to how much their emissions improved over today's typical corn ethanol.³ Typical corn ethanol (rather than gasoline) is the baseline for emissions, because the Biofuels Performance Tax

Credit pays for improvements beyond what is already mandated in the RFS. Structured this way, the tax credit is complementary to the RFS, delivering additional benefits at a much lower cost to taxpayers than today's tax credits. Representative numbers are given in the table below left.

The Biofuels Performance Tax Credit would provide a powerful incentive for corn ethanol producers to adopt clean technology. For example, a typical 100-million-gallon-a-year corn ethanol facility retrofitted with biomass-fired combined-heat-and-power systems would qualify for a tax credit of \$20 million a year—enough to pay for the retrofit within two years.

For the fledgling advanced and cellulosic biofuel industries, the Biofuels Performance Tax Credit would encourage them to design their facilities *from the start* with the cleanest technologies, surpassing the minimum thresholds of the RFS to claim the largest possible tax credits. Overall, the Biofuels Performance Tax Credit would build on the RFS rather than duplicate it, delivering additional benefits that include:

- Savings of \$5 billion a year, starting in 2011, by paying for improvements over the RFS instead of paying oil companies to comply with existing law
- Incentives for increasing investments and reducing emissions in all biofuels production processes, both at new facilities and retrofitted existing facilities
- Total global warming emissions reductions, beyond the RFS-mandated levels, of up to 50 million metric tons a year by 2022—equivalent to taking some 8 million of today's cars and light trucks off the road that year

The Biofuels Performance Tax Credit by itself will not be enough to get cellulosic biofuels to commercial scale on the timeline mandated by the RFS. But by focusing government support on cleaning up new and conventional biofuels, resources can be freed up to support capital investments in the Billion Gallon Challenge while still saving billions of dollars. Together with the RFS, the Billion Gallon Challenge and the Biofuels Performance Tax Credit will get biofuels back on the right path and help to secure the clean energy future that America needs.

ENDNOTES

- 1 United States Government Accountability Office. 2009. Potential effects and challenges of required increases in production and use.
- 2 Babcock, B. 2010. Mandates, tax credits, and tariffs: Does the U.S. biofuels industry need them all? Iowa State University.
- 3 The baseline corn ethanol would be natural-gas-fired dry-mill corn ethanol with dry distillers grains, as described in the RFS final rule (Federal Register: 14669-15320. March 26, 2010).

Fuel	Global Warming Emissions Reduction vs. Typical Corn Ethanol	Energy Content per Gallon vs. Gasoline	Biofuels Performance Tax Credit
Typical Corn Ethanol	0%	66%	N/A
Improved Corn Ethanol	27%	66%	20¢/gallon
Cellulosic Ethanol	85%	66%	65¢/gallon
Soy Biodiesel	44%	100%	50¢/gallon
Waste Grease Biodiesel	89%	100%	\$1.03/gallon

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**Union of
Concerned
Scientists**

National Headquarters
Two Brattle Square
Cambridge, MA 02238-9105
Phone: (617) 547-5552
Fax: (617) 864-9405

Washington, DC, Office
1825 K St. NW, Suite 800
Washington, DC 20006-1232
Phone: (202) 223-6133
Fax: (202) 223-6162

West Coast Office
2397 Shattuck Ave., Ste. 203
Berkeley, CA 94704-1567
Phone: (510) 843-1872
Fax: (510) 843-3785

Midwest Office
One N. LaSalle St., Ste. 1904
Chicago, IL 60602-4064
Phone: (312) 578-1750
Fax: (312) 578-1751