

**Comments of the Environmental Working Group
For the Full Committee Hearing:
Energy Tax Incentives Driving the Green Job Economy
Held on April 14, 1020**

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The Environmental Working Group (EWG) appreciates the opportunity to submit comments for the record of the hearing of the House Ways and Means Committee on the topic of energy tax incentives and green jobs. EWG is an organization committed to the discovery and dissemination of accurate, scientifically based information that is relevant to policy making. We hope you find these comments helpful.

In short, EWG's analysis has shown that the dominance of corn-ethanol in the arena of U.S. renewable energy tax incentives is an extremely inefficient method of subsidizing alternative energy and produces minimal job support or creation, especially compared to other renewable energy types. At a cost of more than \$5 billion this year, and more in coming years thanks to the escalating renewable fuel standard (RFS) mandated by Congress, this tax incentive should be abandoned, and greater emphasis placed on other clean energy types and developing green technology. While there is robust debate regarding the environmental benefits of these incentives, our comments here will focus on the job growth potential, in keeping with the hearing's stated topic.

Inflated Industry Job Creation Estimates

With our country still recovering from a deep recession and national unemployment hovering around 10 percent, there is ample reason for the Congress and this Committee to seek to maximize job creation. It is with this in mind that we point out the relatively few jobs that are created and sustained by the corn-ethanol industry.

The industry has circulated wildly optimistic job-creation numbers that do not stand up to independent scrutiny. The latest estimates come from the group Growth Energy, which relied on a study it had commissioned from the Windmill Group in support of the industry's petition to have the ethanol blend limit in gasoline lifted from 10 percent to 15 percent. Doing so would essentially double ethanol production from 10.1 billion gallons in 2008 to 20 billion gallons. The Windmill Group's report projected that such an expansion would result in an additional 136,101 new jobs.¹ This estimate, however, is based on a number of faulty assumptions and is far out of line with other independent analyses.

The study uses input-output analysis, which is a common procedure in estimating the economic impacts of a given stimulus. This analysis is based on economic data

¹ Hodur, N., F.L. Leistritz, and D. Senechal. Economic Impacts of Increasing the Ethanol Blend Limit. Report prepared for Growth Energy by the Windmill Group, LLC. March 4, 2009.
http://www.growthenergy.org/2009/reports/03-05-09_Jobs_Study.pdf

maintained by the U.S. Bureau of Economic Analysis (BEA). Input-output analysis estimates three kinds of job creation: direct, indirect, and induced. Direct jobs are the ones created at the ethanol plant itself. Indirect jobs are those created in businesses providing materials or services to the ethanol plant. Induced jobs are created when the people holding the new jobs spend their earnings to purchase goods and services. The ratio of inputs to outputs is used to estimate “multipliers.”

It takes additional economic analysis and insight to adjust the multipliers BEA estimates for large sectors of the national economy to fit the unique input requirements of a particular industry such as a corn-ethanol plant. Most important, the analysis of new jobs created must subtract the jobs and economic activity that was already going on before the ethanol plant came on-line. To do this, independent analysts spend a great deal of time collecting additional data and fine-tuning their economic models. Industry-commissioned reports, however, use the BEA multipliers without modification.

The practice of fine-tuning multipliers is particularly important in studies of the economic impact of corn-ethanol. The BEA collects no data specific to the ethanol industry. In BEA’s data and its multipliers, corn-ethanol is subsumed under the much larger “organic chemicals” category. Taking off-the-shelf multipliers for organic chemicals and using them to analyze the corn-ethanol industry, as Growth Energy does, leads to inflated estimates of job creation.

Another major mistake committed in a different economic analysis commissioned by the Renewable Fuels Association (RFA) is assuming that there was no activity among the input supplier industries until the arrival of corn-ethanol. The RFA consultant (LEGC LLC) allows corn-ethanol to take credit for all the economic activity generated by growing corn, which was happening in commercial bulk long before the advent of ethanol. More than half (53%) of the jobs RFA credits to the corn-ethanol industry are in fact jobs that already existed for growing the corn that was already being produced for food and feed.²

Independent analysts rightfully criticize the RFA for dramatically over-estimating the employment impacts of their industry.

David Swenson, an economist at Iowa State University and an expert in input-output analysis has reviewed multiple studies of job creation produced by ethanol industry consultants. His conclusion:

“In short, there are claims to economic outcomes associated with ethanol production that seasoned analysts cannot swallow, but that proponents and politicians will certainly tout as gospel unless confronted with better (or, for the most part, actual) research. The gap between sensible analysis and outright nonsense is huge.”³

² Urbanchuck, J.M. Contribution of the Ethanol Industry to the Economy of the United States. Prepared for the Renewable Fuels Association by LEGC LLC. February 23, 2009. http://www.ethanolrfa.org/objects/documents/2187/2008_ethanol_economic_contribution.pdf

³ Swenson, D. Input-Outrageous: The Economic Impacts of Modern Biofuels Production. Paper originally prepared for the Mid-continent Regional Science Association and the Biennial Implan

Comparison to More Realistic Assessments

The Growth Energy consultants state that a single 100-million-gallon-per-year (MGY) corn-ethanol plant would employ 45 people, which is in line with independent analysts' estimates. Forty-five jobs are significant in a rural community, but hardly the rural renaissance promised by ethanol supporters, so the key to their large job figures are the economic multipliers. The consultants estimate that those 45 jobs and the total economic activity they represent would result in 1,418 jobs across the economy. That translates to 31.5 jobs for each job at the prospective ethanol plant, a highly questionable multiplier. Unfortunately, the Growth Energy report provides none of the specific data and details about the model parameters and assumptions they used to produce their estimate. That makes it impossible to determine why the discrepancy between their results and those from independent analysts is so large.

Independent analyses show that the Growth Energy job creation estimates are likely 5 to 10 times too high (see Table 1).

Table 1: Growth Energy Job Multipliers 5 to 10 Times Too High

	Job Multipliers Used by Independent Analysts	Job Multiplier Used by Growth Energy	Growth Energy Compared to Independent Analysts
Swenson 2006 ³ 50 MGY Plant	2.80	31.50	11 times too high
Swenson 2007 ⁴			
50 MGY Plant	3.79	31.50	8 times too high
100 MGY Plant	3.70	31.50	9 times too high
Low & Isserman 2009 ⁵			
Hamilton County IL	3.92	31.50	8 times too high

National Users Conference, Indianapolis, IN. June 2006.

http://www.econ.iastate.edu/research/webpapers/paper_12644.pdf

⁴ Swenson, D. Understanding Biofuels Economic Impact Claims. April, 2007.

http://www.econ.iastate.edu/research/webpapers/paper_12790.pdf

⁵ Low, S. and A.M. Isserman. Ethanol and the Local Economy: Industry Trends, Location Factors, Economic Impacts and Risks. Economic Development Quarterly 2009: 23 (71).

<http://edq.sagepub.com/cgi/content/abstract/23/1/71>

100 MGY Plant			
Kanakee County IL 100 MGY Plant	6.41	31.50	5 times too high
Harlan County IL 60 MGY Plant	2.83	31.50	11 times too high
Coles County IL 60 MGY Plant	4.34	31.50	7 times too high

The estimates from independent analysts consider economic impacts at the county- or state-level, whereas the Growth Energy study considers impacts at the national level. That could explain a small part of the wide discrepancy between independent analysts and the Growth Energy consultant. However, a December 2007 study by David Swenson estimates a national-level job multiplier of 5.26 for a U.S. ethanol industry producing 14.6 billion gallons a year and of 5.63 for a U.S. ethanol industry producing 29.1 billion gallons a year.⁶ Moreover, Mr. Swenson indicated that increasing the county or regional job multipliers by only one job would likely account for the extra jobs created in the national economy – still far lower than the multiplier used by Growth Energy. Using his model he determined that the extra 12 billion gallons needed to supply enough ethanol for a 15 percent blend with gasoline would create 38,850 jobs – 3.5 times fewer than Growth Energy’s job creation claims.

In another March 2009 report, this one from the Iowa Department of Revenue, state officials sounded this warning about industry predictions regarding jobs created by corn-ethanol:

“Several papers have attempted to estimate the number of direct and indirect jobs created by the ethanol industry. There is a wide range of estimates for the number of indirect jobs created by the biofuels industry. On the high side, a 2008 report prepared by Urbanchuk for the Renewable Fuels Association (RFA) found that a 50 MGY plant creates 40 direct jobs and 578 indirect jobs, and a 100 MGY plant creates 50 direct jobs and 1,087 indirect jobs. On the low end, Swenson (2006) found that a 50 MGY plant creates 35 direct jobs and just 75 indirect jobs. The discrepancy is due to differences in assumptions made and consequently

⁶ Swenson, D. Estimating the Future Economic Impact of Corn Ethanol Production in the U.S. December, 2007. http://www.econ.iastate.edu/research/webpapers/paper_12864.pdf

the estimated multiplier used. The actual number is likely modest and closer to Swenson's estimate."⁷

Cost Per Job

The RFS requires that the amount of corn-ethanol blended into gasoline increase from 12 billion gallons this year to 15 billion gallons in 2015 and beyond. The volumetric ethanol excise tax credit (VEETC) is paid to oil refiners in addition to this mandate, a curious arrangement in which the federal government provides a tax benefit (i.e. cash) for doing something it required those companies to do. If the credit is extended for another 5 years at the current rate of 45 cents per gallon, the Treasury will give back to the oil refineries \$31.05 billion as they comply with the RFS.

According to RFA's industry assessments for 2010, existing ethanol plants have a production capacity of 13 billion gallons per year (bg), meaning that only an additional 2 bg will be needed to meet the 2015 mandate, which would require the construction of 20 100-million-gallon-per-year ethanol refineries. That would result in a direct ongoing job increase of 900 to run the additional refineries, and using the Swenson estimate above, would result in a total of 4,734 additional jobs over the next 5 years. That computes to a federal expenditure of \$7.7 million per job – jobs that would have been created regardless of the tax credit because of the blend mandate.

Comparison to Other Renewable Industries

At this point, corn-based ethanol is a mature industry with adequate capacity and resources and a guaranteed demand for its product. Other renewable industries, however, are still in their infancy and have greater need for government assistance to overcome initial capital and regulatory barriers to development. Nevertheless, ethanol receives far more federal funding through the VEETC alone than any other renewable industry. In 2007, the federal government issued \$3 billion to blend ethanol into gasoline, but it provided only \$724 million in tax benefits to the wind industry, and \$26 million in tax benefits to all other renewable sources.⁸ The ethanol subsidy will increase to \$5.4 billion this year and more than \$6.2 billion in 2013, while the Joint Committee on Taxation (JCT) has estimated that the wind production tax credit, the largest expenditure after biofuels, will cost only \$0.9 billion and \$1.6 billion in 2010 and 2013, respectively.⁹

⁷ Jin, Z. and B. Teahan. Iowa's Tax Incentive Programs Used by Biofuel Producers: Tax Credit Program Evaluation Study. Tax and Research Program Analysis Section, Iowa Department of Revenue. March 2009. <http://mpr.ub.uni-muenchen.de/14795/>

⁸ Energy Information Agency, U.S. Department of Energy. Federal Financial Interventions and Subsidies in Energy Markets 2007. SR/CNEAF/2008-01. April 2008. <http://www.eia.doe.gov/oiaf/servicerpt/subsidy2/pdf/execsum.pdf>

⁹ Joint Committee on Taxation. Estimates of Federal Tax Expenditures For Fiscal Years 2009-2013. January 11, 2010. <http://www.jct.gov/publications.html?func=select&id=5>

In addition to being less costly, the U.S. Department of Energy (DoE) has estimated that large increases in wind production will result in significant employment gains. It found that ramping up wind power to provide 20 percent of the nation's electricity by 2030 (which could be accomplished through a mandate analogous to the RFS) would support a total of 500,000 full-time workers per year by the end of that time.¹⁰ The American Wind Energy Association states that the industry last year employed 85,000 people, which would mean an increase of about 415,000 – which is three times the corn-ethanol industry's own job estimate, and up to 34 times the estimates of independent analysts. Similarly, DoE cites an independent study that estimates that the solar industry will create 440,000 jobs in 2016 as a result of the extension of the investment tax credit¹¹, to which the JCT attributes very small cost.¹²

Clearly, providing incentives for wind and solar production is a much better and far less costly driver of job growth than corn-ethanol, and valuable budget offsets should be reserved for the time when those credits expire rather than used this year to further prop up an industry that has failed to live up to its economic and environmental promises.

¹⁰ Department of Energy, Office of Energy Efficiency and Renewable Energy. E20% Wind Energy by 2030. July 2008 <http://www1.eere.energy.gov/windandhydro/pdfs/44889.pdf> and <http://www.nrel.gov/docs/fy08osti/41869.pdf>

¹¹ Department of Energy, Office of Energy Efficiency and Renewable Energy. 2008 Solar Technologies Market Report. January 2010. <http://www1.eere.energy.gov/solar/pdfs/46025.pdf>

¹² Joint Committee on Taxation, 2010.