April 22, 2013

Honorable Fred Upton
Chairman
Honorable Henry Waxman
Ranking Member
House Committee on Energy and Commerce
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Dear Sirs,

Again, thank you for organizing this important and timely review of the Renewable Fuel Standard (RFS). This letter comments on two questions posed in your April 18, 2013 White Paper on Agricultural Sector Impacts.

Sincerely,

Marlo Lewis, Senior Fellow

As enumerated in the White Paper, those questions are:

3. Was EPA correct to deny the 2012 waiver request? Are there any lessons that can be drawn from the waiver denial?

4. Does the Clean Air Act provide EPA sufficient flexibility to adequately address any effects that the RFS may have on corn price spikes?

Comment on Question 3

The EPA should have granted the 2012 waiver request. As many stakeholders said at the time, "If not now, when?"

Since the RFS was adopted, corn use for ethanol tripled from 1.6 billion bushels in 2005/2006 to 5.0 billion in 2011/2012.[1] Ethanol's share of the U.S. corn crop increased from less than 15% in 2005 to nearly 40% in 2012.[2]

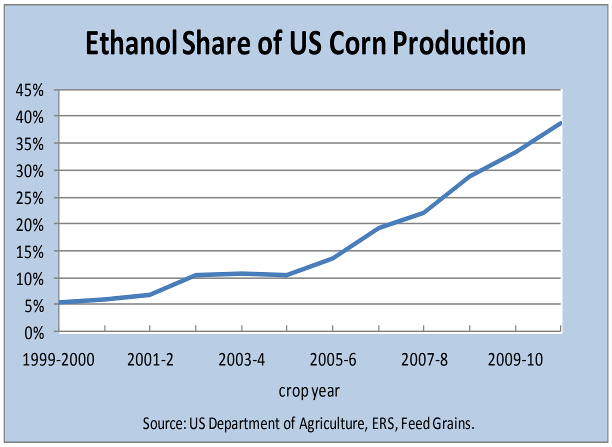

Figure Source: Wise, *Cost to Mexico of U.S. Corn Ethanol Expansion*

Not coincidentally, as the White Paper notes, corn prices, which averaged $2.15 per bushel in 1997-2006, have averaged $7.00 per bushel in 2013 and shot above $8.00 per bushel during the 2012 drought. [3]

The surge in corn prices in 2012, triggered by the worst drought in 50 years, created significant hardship for poultry, beef, pork, and dairy producers, who use corn as animal feed. The RFS was a contributing (aggravating) factor. By pre-allocating an ever-growing share of the nation's corn crop to ethanol manufacture, the RFS intensifies and prolongs price spikes when drought or other adverse conditions reduce supply.

Waiving the RFS could have helped calm corn futures markets and, in some measure, alleviate widespread economic distress in the petitioning states – especially if the waiver created an expectation that the EPA would grant additional waivers in subsequent years.

Unfortunately, the EPA adopted a reading of the waiver provision that placed an almost impossible burden of proof on petitioners, prejudging the issue against them, as will be discussed below.

Livestock Producers and State Economies Experienced Severe Harm

In 2012, the governors of ten states petitioned the EPA to waive the RFS in whole or in part.[4] The petitions paint a picture of state economies in distress due to the impact of high grain prices on livestock producers. Consider two examples.

"Virtually all of Arkansas is suffering from severe, extreme, or exceptional drought conditions," reported Gov. Mike Beebe, and accelerating corn prices are "having a severe economic impact" on the State's livestock producers. Agriculture accounts for "nearly one-quarter" of Arkansas's economic activity, and livestock sectors hit hard by rising corn prices "represent nearly half" of the State's farm sales.

"While the drought may have triggered the price spike in corn," Beebe acknowledged, an "underlying cause" is the RFS, which mandates "ever increasing amounts of corn for fuel." Since the RFS was enacted in 2005, "the cost of corn for use in food production has increased 193 percent," corn stocks are tighter, and prices are more volatile.

In Georgia, wrote Gov. Nathan Deal, agriculture accounts for 15.7% of State output, has an annual impact of $68.9 billion, and provides 380,000 jobs. Poultry and livestock "represent over 50 percent of Georgia's farm gate value, while broilers alone account for over 40 percent of farm gate value." An estimated 98,000 jobs depend directly or indirectly on the State's poultry industry. Because of rising corn prices, Deal estimated, Georgia's poultry producers spend an extra $1.4 million a day. Even during the three years previous to the drought, "over one-third of the U.S. broiler industry experienced bankruptcy, sale, or closure" due in part to rising feed costs.

Like Beebe and the other governors, Deal drew two reasonable conclusions. (1) The RFS – a politically-mandated diversion of increasing quantities of corn from feed to fuel – puts "upward pressure" on corn prices. (2) Waiving the RFS would relieve some of that pressure by freeing up grain stocks for uses other than ethanol manufacture.

Parsing out the exact contribution of the RFS to rising feed prices is difficult. Use of carry-over Renewable Fuel Identification Numbers (RINs) to meet blenders' renewable volume obligations (RVOs) for 2012 or 2013 could potentially reduce the quantity of corn converted to ethanol in those years by more than 900 million bushels.[5] But, noted the National Chicken Council in its comment on the waiver petitions, the estimated 2.6 billion gallons of accumulated RINs equal 19% of the 2013 ethanol blending requirement, and "conventional wisdom holds that refiners and blenders are likely to hold onto their RINs to offset the 'blend wall' that is fast approaching, the point at which ethanol will completely saturate the E10 blend market and gasoline producers will be unable to incorporate the increasingly higher levels of ethanol into their fuels."[6] The recent surge in RIN prices from $0.02 in the first quarter of 2012 to $0.70 in the first quarter of 2013 would appear to corroborate that analysis.

In 2009, the Congressional Budget Office estimated that ethanol accounted for a 28% to 47% increase in the price of corn from April 2007 to April 2008.[7] As food industry petitioners noted, that price increase occurred when the U.S. harvested a record 13.1 billion bushels of corn.[8] The USDA estimates that U.S. corn production in 2012 was 10.8 billion bushels.[9] Yet, although corn production in 2012 was 2.3 billion bushels less than in 2008, the RFS required corn -ethanol production to expand from 8.52 billion gallons in 2008 to 13.40 billion gallons in 2012 – a 57% increase.[10] The foregoing facts indicate that the RFS made a non-trivial contribution to rising corn prices and the associated hardship experienced by livestock producers in 2012.

The EPA Misread the Waiver Provision

Section 211(o)(7) of the Clean Air Act (CAA) authorizes the EPA to waive all or part of the RFS blending targets for one year if the Administrator determines, after public notice and opportunity for comment, "that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States."[11] Only once before did a governor request an RFS waiver. When corn prices soared in 2008, Gov. Rick Perry of Texas requested that the EPA waive 50% of the mandate for the production of corn ethanol.[12] Perry, writing in April 2008, noted that corn prices were up 138% globally since 2005. He estimated that rising corn prices had imposed a net loss on the State's economy of $1.17 billion in 2007 and potentially could impose a net loss of $3.59 billion in 2008. At particular risk were the family ranches that made up two-thirds of State's 149,000 cattle producers. Bush EPA Administrator Stephen Johnson rejected Perry's petition in August 2008.[13]

In the EPA's Request for Comment on the 2012 waiver petitions,[14] the agency indicated it would use the same "analytical approach" and "legal interpretation" on the basis of which Johnson denied Perry's request in 2008. Specifically, according to the EPA, petitioners must show that the "RFS itself" would cause severe economic harm, not merely "contribute" to it. The EPA also implied petitioners must show that the relief sought would "remedy the harm" – achieve a substantial reduction in the prices of corn, feed, and food.

This reading of the statute prejudges the issue, imposing a burden of proof that may be impossible to meet under almost any realistic scenario. Major changes in economic conditions typically result from a combination of factors, not a single cause. An ethanol mandate that causes little economic harm when unemployment rates are low, corn production is booming, corn stocks are high, and China's demand for U.S. corn imports is low could inflict severe harm when the opposite conditions obtain — as they do today.[15]

If Congress wanted the EPA to grant a waiver only when the RFS *alone* causes severe economic harm, it could have easily said so. The statute specifies no such limitation. Rather, CAA Section 211(o)(7) says the Administrator may grant a waiver if she determines that "implementation" of the RFS would cause severe harm. *Implementation* always occurs *within a context of market conditions*. Whether or not implementation causes harm depends decisively on other factors. It is not possible to make a reasonable determination without considering other factors that also affect food and feed prices. Nothing in the statutory language requires the EPA to don analytical blinkers and ignore, for example, the worst drought in 50 years, its effects on corn stocks, and the price effects of the interaction of the RFS with the drought-induced supply shock.

The EPA's suggestion that the waiver be a remedy for the harm also stacks the decks against petitioners. By law, the EPA may grant a waiver for only *one year* at a time. Although a series of waivers might significantly reduce corn and feed prices, a one-year waiver may have little impact on markets shaped by RFS's 15-year (2008-2022) production quota schedule and the associated expectation of a quick return to even higher mandated levels of corn-ethanol production in the following year. So even if waivers granted two or three years in succession would provide a complete remedy, the EPA's dubious reading of the statute would allow the agency to deny waiver petitions year after year on the grounds that no individual waiver would provide the relief petitioners seek.

Inconsistent Decision Criteria

The EPA argues in the opposite vein when the issue is not whether to grant regulatory relief but whether to pull a regulatory trigger. In such cases, even small contributions to an alleged harm are considered sufficient grounds for regulation, and even minute regulatory contributions to the hoped-for solution are deemed fully justified.

Take, for example, the EPA's heavy-duty truck greenhouse gas (GHG) emission standards. The EPA estimates that the standards for model year (MY) 2014-2018 heavy-duty vehicles will reduce atmospheric carbon dioxide (CO_2) concentrations by 0.732 parts per million, which in turn will avert an estimated 0.002-0.004°C of global warming and 0.012-0.048 centimeters of sea-level rise by the year 2100.[16] Such changes would be too small for scientists to distinguish from the "noise" of inter-annual climate variability. The EPA acknowledges no obligation to demonstrate either that heavy-truck GHG emissions *alone* harm public health and welfare or that regulating MY 2014-2018 heavy-truck GHG emissions would take significant bites out of global temperatures and sea-level rise.

The EPA's proposed GHG emission standards for fossil-fueled power plants are an even clearer example of the agency's pro-regulation bias. The EPA does "not anticipate any notable CO_2 emissions changes resulting from" the GHG emission standards and, thus, concludes that "there are no direct monetized climate benefits in terms of CO_2 emission reductions associated with this rulemaking."[17] In short, the standards would not even make a negligible contribution to a solution, yet the EPA proposed them anyway.

In contrast, when the issue before the EPA is whether to suspend part or all of the RFS blending requirements, then the regulation *itself* must be shown to cause severe harm, and even temporary relief must be shown to cure all ills (or most of them). To be sure, the agency claims these decision criteria are established by statute. But, as noted, the text of CAA section 211(o)(7) does not stipulate either that the "RFS itself" apart from other relevant conditions must be the cause of severe harm, or that the waiver be a silver bullet.

Lessons Learned

Two lessons emerge from the foregoing discussion:

1. The EPA's reading CAA Section 111(o)(7) virtually guarantees that petitions will be denied regardless of the RFS's contribution to economic harm. At a minimum, Congress should revise the text to preclude the EPA's deck-stacking interpretation and clarify that the threshold issue is whether, in the context of actual market conditions, the RFS makes a non-negligible contribution to severe economic harm.

2. The current waiver process, in which the agency administering the RFS also gets to decide whether to grant relief from RFS blending requirements, embodies a basic conflict of interest. The EPA, after all, is not an impartial umpire in controversies arising under the rules it administers but the primary stakeholder – the main interested party. The current waiver provision inadvertently flouts a core principle of constitutional government: No one should be judge in his own cause. Congress should transfer the authority to grant or deny waiver petitions to an independent body with no organizational interest in upholding or suspending RFS requirements. In this reformed process, the EPA's role would be limited to submitting comments like any other stakeholder.

<u>Comment on Question 4</u>

The Clean Air Act does provide the EPA with sufficient flexibility to adequately address RFS effects on *domestic* corn prices. However, as discussed above, the EPA's interpretation of the statute precludes the exercise of such flexibility. Consequently, Congress should revise the text to make the Act's flexibility explicit and transfer the authority to review waiver petitions to an independent body that is not biased against suspending RFS requirements.

The Clean Air Act does not, however, provide *any* flexibility to adequately address RFS effects on grain prices in *developing countries*. For example, even if the EPA were to conclude that RFS implementation contributes to rising global commodity prices that force 100 million people back into absolute poverty,[18] the agency would not have statutory authority to provide relief.

This is no small matter. A full 15% of the global corn crop now goes into U.S. ethanol production.[19] It thus seems likely that the RFS has made a non-negligible contribution to the tripling of international maize prices since 2006 and the associated adverse impacts on world hunger.

Figure source: Wise, *Cost to Mexico of U.S. Corn Ethanol Expansion*

The Clean Air Act authorizes the EPA to suspend RFS requirements when implementation would cause severe harm to the economy or environment of a "State, a region, or the United States." This focus is too narrow. The RFS has the potential to harm the world's poorest people by making staple commodities less affordable. Congress should correct this oversight. Section 211(o)(7) should be revised to include adverse impacts on world hunger among the harms for which petitioners may seek relief.

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[1] Thomas D. Elam, *The RFS, Food and Fuel Prices, and the Need for Statutory Flexibility*, FarmEcon LLC, Aug. 16, 2012, p. 18, http://www.globalwarming.org/wp-content/uploads/2012/07/RFS-issues-FARMECON-LLC-7-16-12.pdf.

[2] U.S.D.A. data cited by Timothy A. Wise, *The Cost to Mexico of U.S. Corn Ethanol Expansion*, Global Development and Environment Institute Working Paper No. 12-01, May 2012, p. 3, http://ase.tufts.edu/gdae/Pubs/wp/12-01WiseBiofuels.pdf

[3] *Reuters*, "Commodities -- Corn hits record high; Brent oil up fifth day," Aug. 9, 2012, http://www.reuters.com/article/2012/08/09/markets-commodities-idUSL2E8J9HH020120809.

[4] A partial list: Gov. Mike Beebe, Maryland (Aug. 13, 2012, http://www.epa.gov/oms/fuels/renewablefuels/documents/arkansas-rfs-waiver-request.pdf); Gov. Jack Markell, Delaware, and Gov. Martin O'Malley, Maryland (Aug. 9, 2012, http://www.nationalchickencouncil.org/wp-content/uploads/2012/08/Letter-to-EPA-Administrator-RFS-DE-MD-8.9.12-final.pdf); Gov. Nathan Deal, Georgia (Aug. 20, 2012, http://www.nationalchickencouncil.org/wp-content/uploads/2012/08/Letter-to-Lisa-P-Jackson-Petition-for-Waiver.pdf); Gov. Susana Martinez, New Mexico (Aug. 20, 2012, http://www.meatami.com/ht/a/GetDocumentAction/i/80562); Gov. Beverly Eaves Perdue, North Carolina (Aug. 14, 2012, http://www.epa.gov/oms/fuels/renewablefuels/documents/north-carolina-rfs-waiver-request.pdf); Gov. Rick Perry, Texas (Aug. 24, 2012, http://governor.state.tx.us/files/press-office/O-JacksonLisa201208240000.pdf).

[5] University of Illinois researchers estimate the stock of RINs currently available at 2.6 billion gallons. That is equivalent to about 942 million bushels of corn. My calculation is based on Wallace E. Tyner, Farzad Taheripour, Chris Hurt, *Potential Impacts of a Partial Waiver on the Ethanol Blending Rules*, Purdue University/Farm Foundation, NFP, August 2012, http://www.farmfoundation.org/webcontent/Potential-Impacts-of-Waiving-Ethanol-Blending-Rules-1841.aspx.

[6] National Chicken Council, Oct. 11, 2012, http://www.nationalchickencouncil.org/wp-content/uploads/2012/10/NCC-Comments-on-Docket-No.-EPA-HQ-OAR-2012-0632-RFS-Waiver-Oct.-11-2012.pdf.
[7] Congressional Budget Office, *The Impact of Ethanol Use on Food Prices and Greenhouse-Gas Emissions, April 2009*, p. 7, http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/100xx/doc10057/04-08-ethanol.pdf.
[8] National Pork Producers et al., Petition for Waiver or Partial Waiver of Applicable Volume of Renewable Fuel, July 30, 2012, p. 8, http://www.nppc.org/wp-content/uploads/20120730-mf-Final-RFS-Waiver-Petition.pdf
[9] USDA, *Crop Production 2012 Summary*, January 2013, p. 3, http://usda01.library.cornell.edu/usda/current/CropProdSu/CropProdSu-01-11-2013.pdf
[10] National Pork Producers et al., p. 6.
[11] 42 USC § 7545, http://www.law.cornell.edu/uscode/text/42/7545.
[12] Gov. Rick Perry, Letter to EPA Administrator Stephen Johnson, April 25, 2008, http://www.epa.gov/oms/renewablefuels/rfs-texas-letter.pdf.
[13] *EPA Decision on Texas Request for Waiver of Portion of Renewable Fuel Standard* (RFS), EPA420F-08-029, August 2008, http://www.epa.gov/oms/renewablefuels/420f08029.htm
[14] EPA, Request for Comment on Letters Seeking a Waiver of the Renewable Fuel Standard, 77 FR 52716, August 30, 2012, http://www.gpo.gov/fdsys/pkg/FR-2012-08-30/pdf/C1-2012-21066.pdf
[15] "Record Corn Imports by China to Drive Rally, Rabobank Says," B*loombergBusinessweek*, Sep. 07, 2012, http://www.businessweek.com/news/2012-09-07/china-rising-corn-import-demand-to-sustain-rally-rabobank-says.
[16] Environmental Protection Agency and Department of Transportation, *Greenhouse Gas Emission Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles*, Proposed Rule, 75 FR 74289, Nov. 30, 2010.
[17] Environmental Protection Agency, *Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units*, Proposed rule, 77 FR 22340, April 13, 2012.
[18] In 2008, World Bank President Robert Zoellick warned that soaring grain prices could increase by 100 million the number of people living in absolute poverty (then defined as a household income of $1 a day or less). "Food and the Poor: The new face of Hunger," *The Economist*, April 17, 2008, http://www.economist.com/node/11049284?story_id=11049284
[19] Wise, *The Cost to Mexico of U.S. Corn Ethanol Expansion*, p. 1.