October 11, 2012

VIA ELECTRONIC MAIL
The Honorable Lisa P. Jackson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Attn: Docket No. EPA-HQ-OAR-2012-0632

Re: Comments of the Renewable Fuels Association on the Request for Comment on Letters Seeking a Waiver of the Renewable Fuel Standard,

Dear Administrator Jackson,

The Renewable Fuels Association (RFA) is pleased to submit these comments on the requests from North Carolina and Arkansas for a waiver of the Clean Air Act’s Renewable Fuel Standard (RFS). RFA is the leading national trade association for America’s ethanol industry. Founded in 1981, our mission is to drive expanded production and use of American-made ethanol and co-products by raising awareness about the benefits of renewable fuels.

Congress first established the RFS in the Energy Policy Act of 2005 and later expanded the program in the Energy Independence and Security Act (EISA) of 2007. The multiple intents of the RFS were to enhance energy security, decrease fuel prices by diversifying energy supplies, create jobs and stimulate the economy, and improve the environment. Without question, the RFS is achieving those goals today and providing tangible benefits to the American public. Unfortunately, the requests for a waiver of the RFS attempt to derail this progress and undermine the national goals of enhanced energy and economic security.

As the attached comments demonstrate, EPA has no option but to deny the waiver requests because they are procedurally incomplete, legally insufficient, and factually flawed. To obtain a waiver, a petitioner must show that there is severe harm to the economy of a state, a region, or the United States; that the harm is being directly caused by the RFS; and that waiving the RFS would cure the claimed harm. Even if the statutory requirements did not require the showings described above, the requests from North Carolina, Arkansas and others are so lacking in factual support that they must be denied. The waiver requests completely fail to satisfy the statutory criteria for the following major reasons:

- **No showing of severe harm.** The net state-level impacts of changes in corn price that might result from a waiver of the RFS would be trivial. For example, the impact of changes in corn price that might result from a waiver would be equivalent to no more
than 0.01 percent of the North Carolina’s Gross Domestic Product (GDP), 0.02 percent of Arkansas’ GDP, and 0.01 percent of Georgia’s GDP. These effects can hardly be considered severe economic harm, particularly when they do not take into account the benefits to the state economies from the use of ethanol, such as lower fuel prices.

- **No showing that the RFS itself is causing the claimed harm.** The petitioners do not establish that RFS implementation itself is the cause of the higher feed costs facing their state livestock and poultry industries; rather, the waiver request letters explicitly recognize that the drought of 2012 was the root cause of the increased feed costs.

- **No showing that waiving the RFS would cure the claimed harm.** Studies estimating the impact of a potential RFS waiver on corn prices show that waiving the requirements in 2013 might reduce corn prices by as little as $0.04 per bushel, or 0.5 percent. Further, prices for other feed key ingredients (e.g., distillers grains) may increase in response to a waiver, meaning net feed costs could be unchanged or may actually increase.

- **Failure to recognize the impact of RFS compliance flexibilities.** The petitioners make no mention of the RFS program’s flexibilities that mitigate the impacts of marketplace anomalies and allow markets to adjust rationally. Specifically, the petitioners ignore the impact of RIN banking, borrowing, and trading provisions. In fact, the provision allowing obligated parties to meet up to 20 percent of their current year RFS obligation with RINs generated in the previous compliance year was designed specifically to mitigate the impacts of a drought on agricultural markets.

- **Failure to consider the economic benefits of the RFS.** The RFS has facilitated the achievement of significant economic benefits, including job creation, increased farm income, lower consumer fuel prices, and enhanced energy security. EPA’s evaluation of the requests must consider not only the alleged impacts to the livestock and poultry sectors, but also the economic benefits that would be foregone if a waiver was granted.

These failures and others are explained in greater detail in the attached comments. Measuring the state waiver requests against the statutory criteria clearly indicates that a waiver of the RFS is not justified. Further, if a waiver *did* actually result in reduced biofuel output in the near term, it would negatively affect the national economy by reducing finished gasoline supplies and increasing fuel prices.

The waiver requests before you fail on each statutory criterion. Therefore, the requests should be denied.

Sincerely,

Bob Dinneen
President and CEO
Comments of the
Renewable Fuels Association on the
Request for Comment on Letters Seeking a
Waiver of the Renewable Fuel Standard


Submitted October 11, 2012
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ATTACHMENT 3: Letter from Biofuels Producers Coordinating Council to President Barack Obama (August 27, 2012)
I. Introduction

The Renewable Fuels Association (RFA) submits these comments in response to the requests from North Carolina and Arkansas for a waiver of the Renewable Fuel Standard (RFS).¹ Citing the waiver provisions included in Section 211 (o)(7) of the Clean Air Act (CAA), the governors of North Carolina and Arkansas have requested that the Environmental Protection Agency (EPA) exercise its authority to waive, in whole or in part, the requirements of the RFS for 2012 and 2013. The governors claim that severe drought conditions in the summer of 2012 have caused higher feed costs and economic harm for the livestock and poultry industries in their states, and that implementation of the RFS has somehow contributed to these claimed harms. EPA has no choice but to deny these waiver requests because, as these comments demonstrate, the letters submitted by North Carolina and Arkansas wholly fail to show that the statutory requirements for granting a waiver have been satisfied. The same is true for the subsequent and similarly thin waiver requests from the governors of Georgia, New Mexico, and Texas. Because the requests are so similar, the responses herein to the North Carolina and Arkansas letters also respond to the claims in the letters from the other states.

In adopting the Energy Policy Act (EPAct) of 2005 and the Energy Independence and Security Act (EISA) of 2007, Congress intended for the RFS to serve as the stable bedrock of a national energy strategy that would steadily increase the consumption of renewable fuels in the United States. Stability in the RFS is essential to achieving the goals of EPAct and EISA; stable policy sends a signal that investments in both first- and second-generation renewable fuels are safe, secure, and appropriate.

To obtain a waiver of the RFS, a petitioner must show that there is severe harm to the economy of a state, a region, or the United States; that the harm is being directly caused by implementation of the RFS; and that waiving the RFS as requested would redress the severe harm that is claimed to be occurring. Even if the statutory requirements were lax and did not require the showings described above, the requests from North Carolina, Arkansas and others are so lacking in factual support that they must be denied. Specifically, the waiver requests fail to satisfy the requirements for granting a waiver under Section 211(o)(7)(A) in that:

- **Petitioners fail to show an economic harm to the economy of a state, a region, or the United States.** While the letters qualitatively describe challenges facing the states’ livestock and poultry industries, they fail to quantitatively establish or demonstrate harm to the states’ consumers and statewide economies.

¹ 77 Fed. Reg. 52,715 (Aug. 30, 2012). Request for Comment on Letters Seeking a Waiver of the Renewable Fuel Standard. RFA is aware that EPA has also received waiver request letters from Georgia, New Mexico, and Texas. While EPA's notice primarily references the letters from North Carolina and Arkansas, it also states that "...any additional similar requests submitted to EPA will be docketed and considered together with requests already received." (77 Fed. Reg. 52,716) While we refer specifically to the letters from North Carolina and Arkansas throughout this document, our comments should be read as a response to the letters from Georgia, New Mexico, and Texas as well, given the similar nature of those requests.
The economic impacts claimed in the letters cannot be construed as “severe” harm. Even though the petitioners make no attempt to quantify the economic impacts of the RFS on their state economies, simple calculations show that the net state-level impacts of changes in corn price that might result from a waiver of the RFS would be trivial. For example, the net impact from changes in corn price possibly resulting from a waiver would be equivalent to no more than 0.01 percent of the North Carolina’s Gross Domestic Product (GDP) and just 1.5 percent of the state’s agriculture sector GDP. Similarly, in Arkansas, where the state’s crop farmers produce and sell nearly as much corn as is purchased and fed by the state’s livestock and poultry industry, the net impact of changes in corn price on the state economy would be equivalent to just 0.02 percent of state GDP and 0.9 percent of agriculture sector GDP. In Georgia, the net impact of changes in corn price resulting from a waiver would be equivalent to 0.01 percent of state GDP and 1.8 percent of agriculture sector GDP. These effects can hardly be considered severe economic harm, particularly when they do not take into account the benefits to the state economies from the use of ethanol. Ethanol production is providing significant economic benefits to crop producers in states across the country (including North Carolina and Arkansas), as well as benefits to consumers in the form or lower gasoline prices. All of these benefits must also be considered in any analysis of potential waiver effects.

The waiver requests entirely fail to show that the RFS itself is the cause of the claimed economic harms. The petitioners do not, and cannot, demonstrate that RFS implementation is the cause of the higher feed costs facing their state livestock and poultry industries; instead, the waiver request letters explicitly recognize that the drought was the root cause of the increase in feed costs during the summer of 2012.

The waiver requests do not show that waiving the RFS would alleviate, in any way, the alleged harms to the states’ livestock and poultry industries. In order to satisfy the requirements for granting a waiver, petitioners must show that suspending the RFS would redress the claimed harm. As EPA is aware, corn ethanol production has exceeded the RFS requirements every year, such that petitioners cannot reasonably argue that waiving the RFS would meaningfully reduce ethanol demand and corn prices in the near term. Studies attempting to estimate the impact of an RFS waiver on corn prices (a difficult task given the complexity of commodity markets) have shown that waiving the requirements in 2013 might reduce corn prices by just 0.5 to 7.4 percent. Even assuming such reductions would in fact occur in response to a waiver, corn prices would unquestionably remain well above pre-drought levels.

Measuring the state waiver requests against the statutory waiver criteria clearly indicates that a waiver of the RFS is not justified. Moreover, even if petitioners could make the required showings, which they cannot, EPA should still exercise its discretion to deny the waiver requests. Granting a waiver would undermine the investor confidence and market certainty for renewable fuels that Congress intended EISA to provide. Further, if a waiver did actually result

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2 The Georgia letter alleges the drought and RFS together may increase the annual cost of corn for the state’s poultry producers by $516 million if current market conditions continue. Even if this assertion were true, which it is not, a $516 million economic impact would be equivalent to 0.13% of Georgia’s GDP.
in reduced biofuel output in the near term, it would negatively affect the national economy by reducing finished gasoline supplies and increasing fuel prices.

II. The RFS Has Provided Real and Meaningful Benefits to the Economy and Environment of the United States

The Energy Policy Act of 2005 established the first-ever RFS requiring the use of increasing volumes of domestically produced renewable fuels. Recognizing the multiple benefits of renewable fuels, the 110th Congress in 2007 passed EISA, which modified and expanded the RFS to 36 billion gallons per year by 2022. The manifold purposes of both the original RFS and the expanded program were to bolster energy security, decrease fuel prices by diversifying our energy portfolio, create jobs and stimulate the U.S. economy, and improve the environment. Without question, the RFS is achieving those goals and providing meaningful benefits to the American public each and every day.

U.S. oil import dependency has fallen considerably since peaking in 2005, the year the original RFS was adopted as part of EPAct. Net imports of crude oil and petroleum products accounted for more than 60 percent of total demand in 2005, a year in which ethanol production totaled just 3.9 billion gallons. Last year, however, as ethanol production totaled 14 billion gallons, U.S. oil import dependence had fallen to just over 45 percent of total demand. This marked the lowest oil import dependence rate since 1995. Moreover, oil imports from OPEC nations have fallen nearly 20 percent since 2005 and were at their lowest level in 16 years in 2011.

U.S. ethanol production has grown each and every year since 1996, with an average annual growth rate of 24 percent since 2005. In fact, between 2005 and 2011, ethanol accounted for eight out of every 10 barrels of newly produced liquid fuel from U.S. sources on a cumulative basis (i.e., taking into account both production gains and losses relative to 2005 levels). Indeed, today ethanol represents 10 percent of the nation’s gasoline pool by volume, compared to 2.8 percent in 2005. In 2011, ethanol displaced the need for an amount of gasoline refined from 477 million barrels of crude oil—more oil than the U.S. imported from Saudi Arabia. Without ethanol and without the RFS, our 2011 rate of oil import dependence would have been approximately 52 percent, rather than the actual rate of 45 percent.

Further, increased ethanol consumption has helped hold pump prices lower than they would be otherwise. Because ethanol is regularly priced at a discount to gasoline at the wholesale level, and because ethanol reduces aggregate demand for crude oil, increased use of ethanol is significantly lowering gasoline prices. Economists from Iowa State University and the University of Wisconsin estimate that growth in ethanol production reduced gasoline prices by an average of $0.29 per gallon, or 17 percent, over the period of 2000-2011. Economic

\[3\] EIA (July 13, 2012). *Energy in Brief: How Dependent Are We on Foreign Oil?* Available at http://www.eia.gov/cfapps/energy_in_brief/foreign_oil_dependence.cfm?featureclicked=3/.

\[4\] EIA. *U.S. Imports by Country of Origin.* Available at http://205.254.135.7/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbl_m.htm.

analyses from Louisiana State University, Duke University, Merrill Lynch, the Department of Energy’s National Renewable Energy Laboratory, and others have also concluded that increased ethanol consumption substantially reduces retail gas prices.

One of the policy objectives of the RFS was to address urban air pollution and global climate change. Because ethanol reduces emissions of carbon monoxide (CO), carbon dioxide (CO\textsubscript{2}), exhaust hydrocarbons (VOC), and fine particulates, it has played a key role in leading the way toward improved air quality and lower carbon emissions from the transportation sector. According to EPA data, since 2000, mobile-sourced CO emissions have dropped 54 percent, VOC emissions are down 35 percent, and fine particulates have fallen 27 percent.\textsuperscript{6} Further, the 13.9 billion gallons of ethanol produced in 2011 reduced tailpipe equivalent CO\textsubscript{2} emissions by 25.3 million metric tons—equivalent to the annual emissions of 4 million vehicles.\textsuperscript{7} As the Energy Information Administration (EIA) concluded in a recent report, “[Greenhouse gas] emissions from gasoline and diesel fuel combustion in the transportation sector generally have paralleled total vehicle miles traveled since 1990. In 2009, however, vehicles miles traveled rose slightly while combined emissions from gasoline and diesel fuel declined—likely as a result of more efficient vehicles and increased consumption of biofuels.”\textsuperscript{8} [emphasis added]

Moreover, ethanol has become the single most important value-added market for American farmers, stimulating investment and enhancing economic opportunities for farmers across the country. The emergence of the ethanol industry over the past decade has served as an incredibly important catalyst, transforming the grain sector from a stagnating, surplus-driven marketplace to one that is vibrant, high-tech, and demand-driven. Net farm income hit a record $118 billion in 2011, cresting $100 billion for the first time in history. Gross crop sales exceeded $200 billion in 2011 for the first time in U.S. history, while livestock receipts also hit a record level of $166 billion.\textsuperscript{9} Importantly, the revitalization of rural America is having a decidedly positive impact on the federal budget. Government payments to farmers were $8.9 billion in 2011, an 11-percent decrease from 2010 and the lowest in 14 years. Total government payments in 2011 will be less than half of the $20.2 billion spent in 2005—the last year corn prices averaged $2 per bushel.\textsuperscript{10}

Clearly, the RFS has facilitated the achievement of these tangible and significant economic and environmental benefits. EPA’s evaluation of the North Carolina and Arkansas (and any other) waiver requests must consider not only the alleged impacts to those states’ livestock and poultry sectors, but also the potential impacts on American jobs, farm income, consumer fuel prices, U.S. energy security, and other economic benefits.

\textsuperscript{6} EPA. \textit{Air Trends}. Available at \url{http://www.epa.gov/airtrends/index.html}.
\textsuperscript{7} RFA (2012). \textit{Accelerating Industry Innovation: 2012 Ethanol Industry Outlook}. Available at \url{http://www.ethanolrfa.org/pages/annual-industry-outlook}.
\textsuperscript{10} USDA, Farm Services Agency (2012). \textit{CCC Budget Essentials, FY 2013 CCC Table 35}. Available at \url{http://www.fsa.usda.gov/FSA/webapp?area=about&subject=landing&topic=bap-bu-cc}. 


III. EPA Has Appropriately Interpreted CAA Section 211(o)(7)(A) to Provide Very Narrow Authority to Waive the RFS

Given the goals of EPAct and EISA, Congress was highly specific in identifying the conditions that must be met in order for EPA to grant a waiver under CAA Section 211(o)(7)(A) and provided that even when those circumstances are met, EPA may still deny a waiver request. To grant a waiver, Section 211(o)(7)(A) requires the Administrator to (1) consult with both the Secretary of Agriculture and the Secretary of Energy and (2) find “implementation of the [RFS] requirement would severely harm the economy … of a State, a region, or the United States.”

As explained below, EPA has already interpreted this standard to impose a high hurdle for a petitioner that seeks to disrupt the progress of the RFS through a waiver. That hurdle has not been surmounted by the petitioners here. But even if it had, the importance of maintaining the RFS indicates that EPA should exercise its discretion to deny the requests.

A. EPA Must Evaluate the Present Petitions in Light of the Standard it Established in 2008 for Evaluating Future Waiver Requests.

In April 2008, the state of Texas submitted a two-page letter seeking a waiver of the RFS based on the assertion that:

[T]he RFS mandate is unnecessarily having a negative impact on the economy of Texas, specifically that increased ethanol production is contributing to increased corn prices which are negatively affecting its livestock industry and food prices.

In denying the request, EPA took the opportunity to establish the standard by which future waiver requests would be evaluated. EPA’s denial of the 2008 waiver request clearly apprised potential petitioners of the type of information they would need to provide for EPA to consider and/or grant a request. EPA established the following principles:

1. **RFS Itself is the Cause of Harm**: A petitioner must show not just that the RFS has contributed to a harm to the economy of a state, a region, of the United States, but that implementation of the RFS itself is the cause of the harm—i.e., this is not a “cause or contribute” standard as found in other sections of the Clean Air Act;

2. **Severe Harm**: A petitioner’s showing of some or even substantial harm is not enough—the harm must be severe;

3. **High Degree of Confidence of Occurrence**: A petitioner must demonstrate a high degree of confidence that the claimed severe harm will occur;

4. **Impact is Geographic in Scope, Not Sector-Based**: A petitioner’s showing of harm to one industry sector is insufficient—the statute requires harm to the economy of an entire

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state, a region (i.e., broader than a state), or the country as a whole, and that determination must take into account the overall effects of waiving the RFS on other sectors of the economy;

(5) **Redressability by Lowering the National Standard:** A petitioner must show that waiving the RFS would alleviate the claimed severe harm. Because EPA can only waive the *national* standard (i.e., it cannot waive the RFS on a state-by-state or region-by-region basis), EPA would need to find that a *national* waiver would meaningfully alleviate the claimed harm in the state or region for which such harm was demonstrated; otherwise, waiving the RFS would serve no purpose and would be inappropriate.

(6) **Waiver is Otherwise Appropriate in Light of the Totality of the Circumstances:** Even if the stringent waiver criteria are met, EPA is not required to grant a waiver but rather must evaluate the totality of circumstances and the purposes of the RFS to determine if a waiver is appropriate.

Each of these elements is discussed in more detail below.

1. **The RFS itself must cause the claimed harm.**

For EPA to waive a portion of the RFS, it must determine that the RFS *itself* is the cause of a claimed harm, not a mere contributor. In authorizing potential granting of waivers, Congress required a showing that the RFS be the cause of the alleged harms. Section 211(o)(7)(A) provides that EPA may issue the waiver only if “implementation of the requirement would” severely harm the economy. As EPA appropriately recognized in its 2008 waiver denial, “the straightforward meaning of this provision is that implementation of the RFS program itself must be the cause of the severe harm [emphasis added].”\(^\text{13}\) Thus, the RFS must be the direct cause of the economic harms. Indeed, in its 2008 decision, EPA contrasted Section 211(o)(7)(A) with numerous other CAA provisions that explicitly provide for waivers where there is a mere contribution or lesser causal link to a harm. For example, Congress provided for a waiver of oxygenated gasoline requirements for reformulated gasoline if those requirements “prevent or interfere” with attainment. Contrasting CAA 211(o)(7)(A) with such provisions, EPA correctly noted that Congress’s explicit choice of language not allowing for such a lesser showing of causation “indicates Congressional intent to limit the availability of a waiver to situations where implementation of the RFS program itself would severely harm the economy.”\(^\text{14}\)

As discussed below, the RFS has not been, and cannot be, shown to be the cause of the harm claimed in the petitions here. The drought is the root cause of the higher feed costs facing livestock and poultry producers.

2. **The alleged harm must be severe.**

A petitioner’s showing of some or even substantial harm is not enough—the harm must be severe. As RFA explained in its comments on the 2008 Texas waiver request, Congress used

\(^{13}\text{73 Fed. Reg. 47,168; 47,171.}\)

\(^{14}\text{Id. at 47,171.}\)
the word “severe” on purpose. It could have used the word “substantial” or “significant” or some other adjective. It did not. The use of this word plainly indicates that Congress intended for the waiver provision to address extreme situations affecting an area’s economy based on unforeseen circumstances.\textsuperscript{15} Notably, this is the only waiver provision in the statute in which Congress imposed a standard of “severe” harm. Minor or even major harms are not enough to override the RFS mandate—the harm must be severe. The American Heritage Dictionary defines the term “severe” as causing “great discomfort, damage, or distress”; “very dangerous or harmful”; “grave or grievous”; and “extremely difficult to perform or endure.”\textsuperscript{16} Thus, “severe” harm to the economy is more than price fluctuations for a particular good or service in a specific sector.

In responding to these comments when it denied Texas’s request, EPA agreed with RFA on this point. EPA again looked to the plain language of the CAA and noted that the “straightforward meaning of this phrase indicates that Congress set a high threshold for issuance of a waiver.”\textsuperscript{17} EPA again contrasted the language of 211(o)(7)(A) with the language in 211(o)(8) governing waivers in the first year of the RFS program, which allowed for EPA to grant a waiver with the lesser showing of “significant adverse impacts” on consumers. Thus, EPA concluded that while severe is “short of extreme,” it should be interpreted as “indicating a point that is quite far along the continuum of harm.”\textsuperscript{18}

3. The claimed harm cannot be speculative but must be highly likely to occur.

A petitioner must demonstrate a high degree of confidence that claimed severe harm will occur. Section 211(o)(7)(A) provides that EPA may issue the waiver only if “implementation of the requirement would severely harm” the economy. The use of the word “would” plainly indicates that a petitioner must show a strong likelihood that implementation of the RFS will result in the alleged harms. EPA correctly recognized this clear statutory direction in its 2008 decision, again contrasting the language Congress actually chose with more permissive language found elsewhere in the CAA, in this case contrasting Section 211(o)(7)(A) with the standard for waivers in the first year of the RFS program outlined in Section 211(o)(8). Given that Congress provided in 211(o)(8) for a waiver in the first year of the RFS upon a lesser showing that the RFS “will likely result in significant adverse impacts on consumers in 2006,” EPA noted that the use of the term “would” in Section 211(o)(7)(A) “means Congress intended to require a greater degree of confidence under the waiver provision at issue here.”\textsuperscript{19}

EPA further noted that support for its interpretation could be found in the analogous oxygenate waiver program, which similarly provides for a waiver upon a determination that a waiver “would” prevent or interfere with attainment with a National Ambient Air Quality Standard. EPA

\textsuperscript{15} As discussed below, Congress in the statute and EPA in its rules built flexibility into the RFS to ameliorate circumstances that could be anticipated. Indeed, EPA specifically accounted for drought in its RFS rules by providing for the carryover provision.


\textsuperscript{17} 73 Fed. Reg. 47,172.

\textsuperscript{18} Id.

\textsuperscript{19} Id. at 47,171.
had previously interpreted that provision as requiring that an applicant “clearly demonstrate” interference before a waiver could be granted, an interpretation that was upheld in *Davis v. EPA*. Thus, if EPA were to grant a waiver request, it would need to establish that the claimed harm not only results directly from the RFS itself and is severe, but also is *highly likely* to occur.

4. **The claimed harm must be to the economy of a state, region, or the country, not a sector of a state economy.**

CAA Section 211(o)(7)(A) is clear not only with regard to the degree of causation required for a waiver, but also with regard to the location of the harm. The harm must be to the economy of “a State, a region, or the United States.” Mere local or industry sector-based impacts are insufficient to meet the statutory requirement. Indeed, Congress already provided flexibility to address any local economic concerns that might arise during implementation of the RFS program. The RFS’s credit trading provisions were intended to ensure that ethanol is used “where it is most efficient and economical.” Although EPA did not specifically address local impacts in its 2008 decision, EPA rejected a similar concept of focusing on individual sectors of the economy and instead chose to examine the statewide economy as the smallest unit in determining the presence of severe economic harm.

As discussed elsewhere in these comments, the petitions entirely fail to establish harm to a state economy, *much less a region or the country*, by the RFS. The potential impacts on GDP cited herein clearly demonstrate that there in fact is no such harm.

5. **Waiving the RFS on a national basis must redress the claimed harm.**

The severe harms Congress intended to address through the waiver provisions are only those that can be redressed by reducing the *national* RFS requirement. Section 211(o)(7) does not authorize EPA to waive the RFS for North Carolina or Arkansas or any other state. Rather, any relief that EPA may provide is for the “total national volume required.” EPA then must assess the situation and the evidence outlined in the petitions to determine if reducing the entire RFS will redress the harms alleged. EPA endorsed such an interpretation in its 2008 decision, noting that requiring a high degree of confidence that severe harm would occur “would limit waivers to circumstances where a waiver would be expected to provide effective relief from harm.”

Not only have petitioners here failed to establish that waiving the RFS would reduce corn prices in any meaningful way, they have also failed to establish how a national waiver would benefit *at all* the economies of the petitioning states. There is no evidence in the record, and such evidence does not exist, that a national waiver would alleviate any claimed harms to the petitioning states.

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20 348 F.3d 772 (9th Cir. 2003).
6. **Waiver must otherwise be appropriate in light of the totality of the circumstances.**

Even if the stringent waiver criteria are met, EPA is not required to grant a waiver. EPA must evaluate the totality of circumstances and the purposes of the RFS to determine if a waiver is appropriate. Section 211(o)(7)(A) does not mandate a waiver but rather states that EPA "may" grant a waiver if the criteria are met.\(^{25}\) Congress has established numerous provisions that are mandatory in the Clean Air Act and has consistently used the word "shall" when doing so. For example, Section 209(b)(1)’s use of the word “shall” with respect to waiver of preemption shows that Congress knew how to make issuance of a waiver mandatory but it chose not to do so for the RFS. In its 2008 waiver denial, the Agency recognized that had Texas met the waiver criteria, which it had not, it could still have denied the waiver request in its discretion.

**B. EPA Has No Discretion to Relax Its Prior Interpretation of the Statutory Waiver Requirements and Certainly May Not Do So Absent a New Opportunity for Comment.**

As discussed above, EPA established, after notice and opportunity for comment, a high hurdle for a waiver of the RFS. While petitioners and other commenters have largely ignored these binding interpretations, EPA must continue to apply the requirements it established in 2008. It is a fundamental principle of administrative law that once EPA has interpreted a statutory provision (even when it does so in guidance), it may not change that interpretation without providing notice and an opportunity for comment on the change. Indeed, EPA has not reopened its interpretation of the waiver requirements and therefore may not change that interpretation in any action on the pending waiver requests.\(^{26}\)

To the extent that petitioners and other commenters address EPA’s prior interpretation of Section 211(o)(7)(A), they ask that EPA adopt a far more permissive interpretation of certain provisions. EPA is prohibited both substantively (by the statutory provisions) and procedurally (by the requirements of Section 307 and the Administrative Procedure Act) from changing its prior interpretations of the statutory interpretations it established in 2008. It is worth noting that even those who would support a waiver seek only a relaxation of the requirement to show severe harm—they have not questioned the other aspects of EPA’s statutory interpretation.

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\(^{25}\) The Administrator may have perfectly valid reasons for denying a waiver even if the severe harm standard were met, such as ensuring a stable investment market for the future of renewable fuels, one of Congress’ key goals in enacting the EISA. Indeed, EPA relied on its statutory discretion in its denial of a waiver for the 2011 cellulosic biofuel standard in May 2012. There, EPA exercised its discretion in not grant a full waiver for cellulosic biofuel despite a lack of domestic supply because, among other reasons, “the issuance of a waiver could have a chilling effect on the future growth of the cellulosic biofuel industry.” Similarly, the issuance of a waiver here would undermine the RFS as a whole and could have a chilling effect on investments in conventional, advanced and cellulosic biofuels.

\(^{26}\) To the extent that the notice speaks to the 2008 decision, it makes clear that the decision established the “scope of [the RFS waiver] authority.” 77 Fed. Reg. at 52,716. At most, the notice requests comment on the interpretation of the term “severe” economic harm in the context of the 2012 waiver requests. It does not reopen the requirement for harm that is just short of extreme or any other aspect of EPA’s interpretations of the six elements for granting a waiver.
Contrary to some commenters’ suggestions, EPA cannot change its statutory interpretation that it must consider both harms and benefits in evaluating a waiver petition. Indeed, EPA not only may consider the overall effects of a waiver (including the elimination of benefits that RFS would provide) on the economy, it must do so. EPA cannot consider claimed “harms” without evaluating overall harms or benefits that will ensue from implementation of the RFS. Moreover, even if EPA had no discretion to interpret the word “harm” to cover the “net harm,” it must interpret the word “economy,” which unquestionably requires a consideration of both costs and benefits to determine if the net impact will harm the economy.27

Indeed, in similar circumstances, the D.C. Circuit has held that EPA is compelled to consider both beneficial and harmful public health effects of a criteria pollutant in determining National Ambient Air Quality Standards.28 There, the court noted that “it seems bizarre that a statute intended to improve human health would … lock the Agency into looking at only one half of a substance’s health effects….”29 Similarly, it would be bizarre for a provision intended to prevent severe harm to the economy to lock EPA into looking at only negative impacts, when the net impact on the economy may be beneficial. Far from being permitted to ignore the benefits of the RFS to the economy, EPA is compelled to consider them.

Second, to the extent that commenters suggest that EPA should newly interpret the statute to mean that regional harm may be within a state as compared to encompassing an area greater than a single state, EPA may not adopt such an interpretation without providing an additional opportunity for comment. Substantively, the suggestion that “a region,” as used in the relevant statutory provisions, is narrower than a state is belied by the statutory language. Far from a natural reading, this interpretation would contravene Congressional intent by encompassing isolated and localized impacts and potentially allowing them to prompt a national RFS waiver. While it is clear that this would be a nonsensical policy, it also is contrary to the statutory structure. Placing the term “region” after “state” but before the “United States” evinces Congressional intent to consider impacts in ascending order from the state to the national level, with “region” naturally read as an area larger than a state but smaller than the United States.30 Thus, a state is the smallest geographic area for which EPA may consider whether the RFS has caused severe economic harm. Congress determined that promoting rural economies was a key purpose of the RFS. It cannot be that addressing alleged impacts to one particular industry in a local area was what Congress intended when it enacted the waiver provision. Indeed, Congress already provided flexibility to address any local economic concerns that might arise during implementation of the RFS program. The credit trading provisions were intended to ensure that ethanol is used “where it is most efficient and economical.”31

27 “Economy” is at least ambiguous under Chevron, and EPA’s interpretation of the term as requiring consideration of both benefit and harm is inherently reasonable under Chevron Step 2.
28 ATA v. EPA, 175 F. 3d 1027 (D.C. Cir. 1999).
29 Id. at 1052.
30 The Section 211(o)(8) waiver provisions for the initial year of the program have a similar progression, although there geographic areas are enumerated in descending order of size (“...on a national, regional, or state basis”). That region refers to an area larger than a state is further confirmed by Congress’s reference to a “state or region of the Nation” in a separate fuel waiver provision that was also enacted in EPAct 2005. See 211(c)(ii)(l). 42 U.S.C. 7545(c)(ii)(l).
Third, contrary to some commenters’ assertions, EPA’s severe harm threshold is not unreasonably high; it is based on the statute. EPA considered and rejected this precise argument in the 2008 Texas waiver application. There, Texas alleged the “impossibility” of showing that the RFS itself was the direct cause of severe economic harm, and not merely a significant contributor. EPA rejected this argument, noting that the plain language of the CAA required that the RFS itself must be the direct cause of the severe harm and that Texas merely asserted the conclusion of impossibility without even attempting to show it to be the case.  

C. EPA Has Inappropriately Departed From the Procedural Requirements it Established in the 2008 Process and Must Satisfy Those Requirements Before it May Grant Any Waiver.

In its 2008 decision on the Texas waiver request, EPA appropriately explained the elements that future waiver requests must satisfy in order to justify the Agency’s consideration and the public’s expenditure of effort in commenting on whether such requests should be granted.

EPA stated first that only state governors and parties subject to the RFS, such as refiners and importers of gasoline, may request a waiver. EPA then explained that any petitioner must meet minimum information requirements before EPA would seek comment on a request. In other words, EPA established the type of completeness criteria that it and other agencies establish for regulatory actions like permit applications. This approach was reasonable because it makes no sense to seek public comment on a waiver request (or a permit application) if it fundamentally lacks the elements that would be necessary for the petition to be granted (or a permit to be issued).

EPA took this step in part because Texas’ request for a waiver in 2008 was comprised of a two-page letter, much like the waiver request letters at issue here. Rather than provide detailed analysis in its petition, Texas sought to act as a member of the public commenting on a request, providing technical and economic analyses during the public comment period. That approach turned the statutory requirement on its head, for Congress intended for the members of the public to be able to comment on whether a petition should be granted. To be able to offer meaningful comment, the petition itself must provide an analysis of the statutory elements. Thus, EPA appropriately stated that the 2008 petitioners had “provided little analytical basis for their request” and established that future applicants must “provide a comprehensive and robust analytical basis for any claim that the RFS itself is causing harm, and the nature and degree of that harm.”

Having established such completeness criteria, EPA has no option but to apply them here. Had it done so, it would not have even sought comment on the state petitions submitted this year.

- Arkansas asserts, in a single page submission that includes no supporting evidence, that increased grain prices are having a “severe economic impact” on the State and that the “underlying cause” is the RFS.

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North Carolina offers little more, asserting in its two-page letter that the state’s swine, poultry, dairy, and cattle producing regions are experiencing “direct harm...caused by the RFS requirement to utilize ever-increasing amounts of corn and soybeans for transportation fuel...”

Georgia, in its three-page submission, similarly asserts that severe economic harm is being caused by the RFS. However, on its face, the petition does not demonstrate severe economic harm. Georgia focuses on the poultry industry, which it asserts has a $20 billion dollar impact on the economy of the state (notably, the Bureau of Economic Analysis estimates the total GDP of Georgia’s animal and crop production at a much smaller $2.8 billion). In seeking to demonstrate economic harm, however, Georgia merely asserts a potential $516 million yearly impact on the poultry industry due to drought-induced higher feed prices. This alleged impact, even if attributable to the RFS, is small in relation to the state economy as a whole ($516 million would be equivalent to 0.13 percent of Georgia’s GDP). Georgia’s petition also does not attempt to demonstrate that the alleged severe economic harm is caused by the RFS itself. Rather, Georgia merely alleges that the production of renewable fuel “contributes directly to the escalation of corn and related crop prices.” Even if correct (and the below analysis demonstrates that Georgia is incorrect), EPA has firmly established that implementation of the RFS itself must be the cause of the severe harm, and that a mere contribution is legally insufficient.

Since the petitions submitted do not meet the criteria in the rule, EPA may not grant a waiver as the public has been deprived of the opportunity to comment on the basis for granting a waiver the RFS. To be sure, the RFA comments here provide ample information explaining why no harm exists, but commenters are not being afforded the opportunity to comment on the data that the states claim support their contention the statutory waiver criteria have been met. This is impermissible.

To the extent these states seek to supplement their petitions by commenting on their own submittals, that approach is impermissible and requires that EPA publish a new public notice and seek comment on that information. Just as an EPA notice seeking comment on whether to waive the RFS on the Administrator’s own motion would require a detailed analysis regarding why the agency believed the statutory criteria would be met, state petitioners cannot circumvent the statutory procedural requirements by submitting information during the comment period. Moreover, if EPA fails to require petitions to meet the necessary elements of a petition prior to seeking comment on a request, the Agency will simply encourage future unsupported petitions. EPA should deny the petitions on this ground alone (and indeed should not have even initiated the comment process).

D. EPA’s Reference to Other Stakeholder Submittals in the Notice is Inappropriate Because Only States or Obligated Parties May Submit Waiver Requests.

EPA references letters submitted by parties that are not included under CAA Section 211(o)(7). EPA must make clear that people who are not listed as parties eligible to submit a petition may not circumvent the requirements of the statute by bootstrapping their self-proclaimed “petitions”
onto submissions by parties with standing to petition. RFA agrees with EPA’s decision to evaluate only the state petitions but EPA should be clear in the final action that parties not eligible to petition under the statute may not sidestep its requirements.

Although the submission from the National Pork Producers Council (NPPC) and other meat groups\(^ {34} \) clearly cannot be considered a “petition” according to the statutory criteria, we are compelled to respond to the numerous incorrect assertions in the letter. In particular, the NPPC et al. letter relies on badly misinterpreted results from obsolete and/or confidential economic studies to argue that the RFS is causing current higher corn prices. These contentions are contradicted by the latest economic analyses, which are discussed in detail elsewhere in these comments. Further, the NPPC et al. letter suffers the same basic evidentiary and procedural shortfalls as the governor letters addressed in these comments. See Attachment 2 for a full rebuttal to the NPPC et al. letter.

**IV. Flexibilities Provided Within the RFS Program Serve to Mitigate the Impacts of Marketplace Anomalies and Facilitate Compliance**

In establishing the RFS, Congress recognized the need to build flexibility into the program that would minimize the economic impacts of variations and anomalies in the marketplace, while still allowing obligated parties to comply with the program’s annual requirements. Specifically, Congress created a credit trading system in Section 211(o)(5) intended to “…give the Administrator the flexibility to design a workable program.”\(^ {35} \) The purpose of the credit trading program was to add fungibility to the RFS program and allow compliance flexibility for obligated parties. In essence, credits are the currency of the program and serve as the instruments by which obligated parties prove compliance with their annual renewable fuel blending requirements (called Renewable Volume Obligations, or “RVOs”). Importantly, the program established by Congress allows trading, borrowing, and banking of the credits.

EPA was mindful of Congress’ intended flexibility as it designed what would become the RFS program’s Renewable Identification Number (RIN) credit system: “One of our guiding principles in designing the RFS program was to *preserve the market mechanisms* that keep renewable fuel costs to a minimum [emphasis added].”\(^ {36} \) In finalizing the original RFS regulations, EPA established that RIN credits would have a two-year lifespan and that a portion of an obligated party’s current-year RVO could be satisfied with RIN credits generated in the previous compliance year.\(^ {37} \) Therefore, if renewable fuel production (and thus the availability of RINs) is reduced in a given compliance year because of an anomaly in the marketplace (such as a drought-induced reduction in feedstock supplies), obligated parties are still able to meet their obligations by turning in excess RINs generated in the previous compliance year. EPA established a 20-percent cap on the amount of the current-year RVO that can be satisfied with RINs generated in the previous compliance year:

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\(^ {34} \) EPA-HQ-OAR-2012-0632-0012.


\(^ {37} \) In practice, the life of some RINs can actually span 26 months because annual compliance reports for Year X are not due until February 28 of Year X+1.
We believe that the 20 percent cap provides the appropriate balance between, on the one hand, allowing legitimate RIN carryovers to fulfill the function of credit generation and use under 211(o) and protecting against potential renewable fuel supply shortfalls that could limit the availability of RINs, and on the other hand ensuring a consistent annual demand for renewable fuels as envisioned by the Act [emphasis added].

EPA specifically cited the utility of this provision for addressing droughts in the RFS1 rulemaking, noting that in the case of a drought “obligated parties could use banked credits to comply.” EPA set the roll-over cap at 20 percent because that level was consistent with past ethanol market fluctuations due to drought. EPA noted “the largest single-year drop in ethanol supply occurred in 1996 and resulted in 21% less ethanol being produced than in 1995.” The 20 percent RIN credit roll-over cap was maintained in the RFS2 regulations that were finalized in 2010.

Since the beginning of the RFS program, obligated parties have always blended more ethanol than was annually required by the RFS due to ethanol’s favorable blending economics (see Figure 1). Since 2006, U.S. ethanol production has exceeded the RFS requirements for renewable fuel by a cumulative total of nearly 5.9 billion gallons.

Figure 1. Annual U.S. Ethanol Production vs. RFS Renewable Fuel Requirements

Source: EIA and EPA

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40 Id. at 23,935.
Because RINs have a two-year life, obligated parties generally retire their oldest RINs first when reconciling their RVOs at the end of a compliance year. Accordingly, a large rolling “bank” of excess RIN credits has been accumulated over the past several years. The number of excess renewable fuel RIN credits currently available to obligated parties for compliance has been estimated at 2.6-2.7 billion. However, this estimate actually understates the number of RINs available. EPA’s Moderated Transaction System (EMTS) data shows that of the 13.59 billion renewable fuel (D6) RINs generated in 2011, only 10.10 billion were retired for compliance with 2011 obligations. Thus, 3.48 billion RINs that were generated in 2011 are characterized by EPA as “available” for compliance with 2012 obligations (however, due to the 20 percent roll-over cap, a maximum of 2.64 billion vintage 2011 RINs may be used for compliance with the 2012 standards).

An examination of RIN generation and retirement in the 2011 compliance year provides useful insight into how the 20 percent RIN credit roll-over provision works in practice (see Figure 2). As stated above, only 10.1 billion vintage 2011 RINs were turned in for compliance with the 2011 renewable fuel requirement of 12.6 billion gallons. Presumably, the remainder of the renewable fuel obligation in 2011 was met with excess RINs that were generated in the 2010 compliance year. Indeed, the difference between the 2011 obligation of 12.6 billion gallons and the 10.1 billion vintage 2011 RINs that were retired is 2.5 billion, which is 19.8 percent of the 2011 obligation—just under the 20 percent maximum. This demonstrates that obligated parties will exhaust their previous-year RINs to the maximum extent possible before turning in current-year RINs for compliance.

Figure 2. 2011 Ethanol Production, D6 RIN Generation and Retirement

Sources: EPA EMTS data and EIA; Vintage 2010 RINs retired is implied by the EMTS data

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41 Paulson, N., University of Illinois (Mar. 15, 2012). Is the Ethanol Mandate Truly a Mandate? An Estimate of Banked RINs Stocks. farmdoc DAILY. Available at http://www.farmdocdaily.illinois.edu/2012/03/is_the_ethanol_mandate_truly_a.html.

Because of the flexibility afforded by the RIN roll-over mechanism, the statutory RFS volumes are not rigidly binding and, thus, do not create an absolutely inelastic source of corn demand, as claimed by some petitioners and supporters of a waiver. In fact, physical blending of ethanol could be as low as 11.04 billion gallons in 2013 and obligated parties could still meet the obligation of 13.8 billion gallons by turning in excess RINs rolled forward from 2012 to account for a potential shortfall in physical gallons. As discussed later, this flexibility allows actual ethanol production and use to respond rationally to market signals, and ensures the ethanol industry will participate in demand rationing in the event of a feedstock shortage.

Congress added even more compliance flexibility to the RFS program by including a provision to Section 211(o)(5) allowing obligated parties to carry forward a renewable fuel deficit for one year. There is no limitation on the size of the deficit that may be carried forward; Congress required only that the deficit carried forward from the previous year must be completely offset in the current compliance year. Given the substantial amount of excess RIN credits available on the market today, it is highly unlikely that obligated parties would need to carry a deficit forward. Still, this provision creates an additional level of flexibility for obligated parties in the event compliance with the 2013 standards become challenging.

The RFS program’s RIN credit banking, borrowing, and trading provisions provide considerable compliance flexibility that helps ameliorate the impacts of abnormal market conditions. EPA must consider the impact of these flexibilities when considering the potential effects of a waiver.

V. The RFS Program’s Inherent Flexibilities Have Allowed Markets to Adjust Rationally to the Drought-Shortened Feedstock Supply

The aforementioned compliance flexibilities built into the RFS program are allowing the grain and ethanol markets to react rationally to higher feedstock costs and the prospect of tighter supplies. According to a recent analysis released by the Center for Agricultural and Rural Development (CARD) at Iowa State University, “[t]he flexibility built into the Renewable Fuels Standard allowing obligated parties to carry over blending credits (RINs) from previous years significantly lowers the economic impacts of a short crop, because it introduces flexibility into the mandate [emphasis added].”

Recent ethanol production data from the Energy Information Administration demonstrates that the ethanol industry has responded to the drought-induced escalation in corn prices by substantially reducing output. As of the week ended Sep. 28, U.S. ethanol production had dropped to its lowest level in more than two years. For the four weeks ending Sep. 28, weekly ethanol production averaged 811,000 barrels per day (bpd.), down 11 percent from the average of 911,000 bpd. for the four weeks ending June 8 and down 15 percent from the January 13 four-week average of 953,000 bpd. The RIN roll-over flexibility has allowed recent production

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rates to persist below the average of 861,000 bpd. that would be necessary to meet the 2012 RFS requirement strictly with physical gallons. Meanwhile, prices for ethanol and renewable fuel RINs remain at modest levels that are well within historically normal ranges. Indeed, according to a recent analysis conducted by economists at Purdue University, the reduction in ethanol output since early June “…shows that markets can and do adjust, with less corn being used for ethanol.”

Clearly, the ethanol industry’s demand for corn is sensitive to price, just like other grain users. Far from the immovable, inelastic “grain vacuum” asserted by petitioners, the RFS program has important flexibilities that have allowed the ethanol industry to respond naturally to price signals and participate with other grain users in the demand rationing process. In fact, the U.S. Department of Agriculture (USDA) recently projected corn use for ethanol will fall by nearly twice the rate as corn use for livestock feed in the 2012/13 marketing year (Figure 3). USDA is projecting reductions of 10 percent for ethanol and co-product use and 5.7 percent for feed use in 2012/13.

Similarly, a recent update to the University of Missouri Food and Agricultural Policy Research Institute’s (FAPRI) baseline agricultural projections shows corn use for ethanol falling more than corn use for feed in the 2012/13 marketing year. When compared to 2011/12 levels, FAPRI projects a 10.7 percent cut in the amount of corn used for ethanol and co-products, while corn

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use for feed is expected to fall 8.2 percent. Given the expected cut to corn use for ethanol, low RIN prices, and modest ethanol prices, there is no evidence whatsoever that the RFS is preventing the ethanol industry from reacting rationally to current grain market conditions.

Moreover, ethanol stocks represent another buffer that helps mitigate the impacts of a potential shortfall in ethanol production. Ample stocks have helped offset the reductions in ethanol output that have occurred in response to higher feedstock costs. Ethanol stocks reached a record level of 22.7 million barrels in March 2012. In response to the slow-down in ethanol production that began in June 2012, stocks had been drawn down to 18.8 million barrels by the end of September, which is still considered by the fuels industry to be slightly heavy relative to demand. Stocks have been as low as 16 million barrels in recent years, indicating that refiners and blenders could draw current supplies down further in the event of an ethanol production shortfall without having significant impacts on ethanol prices.

Further, the feed grains market is global in nature and offers flexibilities that serve to ease the impacts of weather-related production shortfalls in certain parts of the world. While drought in the United States has reduced domestic corn supplies from the levels expected earlier this year, corn production in other parts of the world is projected higher than previously expected. In fact, despite the reduction in U.S. corn production, the 2012 global corn crop is projected by USDA to be the second-largest on record, trailing only 2011’s record crop. Production in Argentina is estimated to be up more than 30 percent over 2011, while Mexico increased output 19 percent, South Africa 17 percent, Canada 9 percent, and China 4 percent, according to USDA.

Historically large world corn supplies will enable users in the United States to import corn when it is economically beneficial to do so. Already, USDA is projecting the United States will import 75 million bushels of corn in 2012/13, a new record and triple the amount imported in 2011/12. Some in the grain trade have suggested U.S. imports may be well above USDA estimates. Indeed, just three weeks into the 2012/13 marketing year, it was confirmed that 30 million bushels of corn imports from Brazil have already been purchased by large-scale livestock operations in the southeast United States. In addition, some livestock operations are substituting feed wheat for corn when it is economically feasible.

The markets are working effectively to respond to the drought’s effects on feedstock costs and availability. Without question, the abovementioned flexibilities in the RFS program are allowing the ethanol industry to react instinctively to current market conditions.

52 Id.
VI. Petitioners Have Not Shown, and Cannot Show, that Current Circumstances Meet the Waiver Criteria.

The letters from the governors of North Carolina and Arkansas do not satisfy the criteria for granting a waiver of the RFS requirements (the criteria for a waiver were discussed in detail in Section III of these comments). Without any evidentiary support whatsoever, the governors’ letters arbitrarily suggest that the RFS is linked to the recent spike in corn and feed prices. They further assert that these price spikes are imposing economic harm on their respective states’ livestock and poultry industries and that the harm could be “alleviated” by a waiver. These claims are without merit.

The assertions made by the governors regarding feed price increases fall far short of meeting the criteria for granting a waiver. As discussed earlier, first, the governors must establish that there has been an economic harm to a State, a region, or the United States and that the RFS program is the cause of that harm. Second, the governors must show that the alleged harms are “severe.” Third, the governors must show how waiving the RFS on a national level would alleviate the claimed harms. As we explain below, none of these showings has been made, nor could they be, in light of the facts.

A. The Economic Impacts That the Governors Claim Are Occurring Because of the RFS Do Not Meet the “Severe Harm” Standard Required to Effectuate a Waiver.

The word “severe” means to cause “great discomfort, damage, or distress” and refers to something “very dangerous or harmful; grave or grievous,” or “extremely difficult to perform or endure.” Under the standard required to trigger a waiver, the Governors would need to show that implementation of the RFS by itself was causing “great discomfort, damage, or distress” to the entire economy of a State, region or United States. The petitioners have not made such a showing, nor can they. While the governors made no attempt whatsoever to quantify the degree of economic harm allegedly occurring in their states, a series of simple calculations demonstrates that higher corn prices are not causing “great discomfort, damage, or distress” to the states’ economies.

The livestock and poultry industries account for a very small fraction of the economic output in North Carolina and Arkansas, as measured by gross domestic product (GDP). Thus, while livestock and poultry producers may feel the economic impacts of drought-induced higher feed costs, those impacts can hardly be described as “severe harm” for the entire State, region, or United States.

According to the Bureau of Economic Analysis (BEA), total GDP for North Carolina in 2010 was $425 billion, and the GDP for the state’s agriculture sector (animal and crop production) was

$3.9 billion. While BEA does not estimate GDP specifically resulting from animal production, using USDA data, we are able to estimate that animal production accounted for 59 percent (or $2.3 billion) of North Carolina agriculture sector GDP. This represents just 0.5 percent of the state’s total GDP. Using the same methods, we estimate that animal production accounted for 1.1 percent of Arkansas’ GDP in 2010. While Georgia’s letter cites agricultural economic impact information from a series of University of Georgia brochures, BEA data shows animal and crop production accounted for $2.8 billion of state GDP, or 0.7 percent of Georgia’s total GDP. Clearly, any economic impact from higher feed prices would be constrained to a small segment of these states’ economies (i.e., livestock and poultry producers) and could not be construed as “severe harm” to the respective statewide economies.

As discussed in detail in the next section, a number of economists have estimated that waiving the RFS requirements for 2013 might reduce corn prices by approximately 0.5 to 7.4 percent. Thus, the impacts of a waiver on the agriculture sectors and overall economies of North Carolina, Arkansas and other states requesting a waiver would be negligible.

For example, ProExporter Network estimates 242 million bushels of corn will be fed to livestock and poultry in North Carolina in 2012/13. If a waiver did in fact reduce corn prices by 5 percent (equivalent to $0.40/bushel), the state’s livestock and poultry feeders would save $97 million on corn purchases. But the state’s crop farmers would lose money, as USDA recently estimated North Carolina produced 94 million bushels of corn in 2012. A $0.40/bushel reduction would result in the state’s crop farmers losing $38 million. Thus, the net impact of changes in corn price on the state economy would be $59 million, which is equivalent to just 0.01 percent of the state’s GDP and just 1.5 percent of the state’s agriculture sector GDP.

In Arkansas, it is estimated by ProExporter Network that 159 million bushels of corn will be fed to livestock and poultry in 2012/13. Meanwhile, USDA estimates the state’s crop farmers produced 112 million bushels of corn in 2012. Thus, if a waiver reduced corn prices by $0.40/bushel, livestock and poultry feeders would save $64 million, but crop farmers would lose $45 million, for a net impact of $19 million. This means the net impact of changes in corn price on the state economy would be equivalent to just 0.02 percent of state GDP and 0.9 percent of agriculture sector GDP.

54 BEA (2012). Gross Domestic Product (GDP) by State. Available at http://www.bea.gov/regional/index.htm. 2010 is used for this analysis because it is the latest available data that includes specific GDP estimates for “crop and animal production (farms).”

55 USDA (2012). Value added to the U.S. economy by the agriculture sector via the production of goods and services, 2000-2011. State tables available at http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics.aspx#27395. For North Carolina in 2010, the “value of livestock production” accounted for $6.294 billion (59 percent) of the total “value of agricultural sector production,” which was $10.614 billion. For Arkansas in 2010, the “value of livestock production” accounted for $4.297 billion (51 percent) of the total “value of agricultural sector production,” which was $8.462 billion. These percentages are applied to the “crop and animal production (farms)” GDP data from BEA to determine what percentage of GDP was tied specifically to animal production.


57 USDA’s latest estimate for 2012/13 season-average corn prices is $7.90/bushel; $7.90/bushel x 5% reduction resulting from RFS waiver = $0.40/bushel reduction. See USDA (Sep. 12, 2012), World Agricultural Supply and Demand Estimates. WASDE 510.

58 USDA (Sep. 12, 2012). Crop Production.
Georgia’s livestock and poultry sector is projected to consume 179 million bushels of corn in 2012/13, while the state’s farmers produced 50 million bushels. Thus, if a waiver reduced corn prices by $0.40/bushel, Georgia’s livestock and poultry feeders would save $72 million, but crop farmers would lose $20 million, for a net impact of $52 million. This means the net impact of changes in corn price on the Georgia economy would be equivalent to just 0.01 percent of state GDP and 1.8 percent of agriculture sector GDP.

It should be noted these simple calculations do not take into account offsetting impacts on feed costs that would occur if a waiver reduced ethanol output (i.e., output of distillers grains and soybean meal would be reduced and prices would increase; see Attachment 1). Nor do these calculations take into account the impact on fuel prices that might result if a waiver of the RFS did reduce ethanol output (those impacts are discussed later; see Section VII).

In rejecting the 2008 waiver request from Texas, EPA clearly established that even if a showing of “severe harm” could be made by a petitioner, it must apply broadly to the entire economy of a state, region, or the United States, not just to one small sector of the economy in one state: “…it would be unreasonable to base a waiver determination solely on consideration of impacts of the RFS program to one sector of an economy, without also considering the impacts of the RFS program on other sectors of the economy or on other kinds of impact [emphasis added].” EPA further noted, “[t]he relief requested by a waiver applicant will always…be national in character, hence we expect that EPA will always want to examine the nationwide effects of the requested relief, and give the appropriate weight to the range of anticipated effects.”

B. Petitioners Have Not Showed that Recent Corn Price Increases Were Caused in Any Way by Implementation of the RFS. Instead, the States Explicitly Acknowledge That the Drought is the Cause of Higher Prices.

Even if the governors had been able to show that higher corn prices were “severely harming” their state economies, they would then need to prove that the RFS, in and of itself, was the cause of those higher corn prices. The governors fail to make either showing.

It is beyond dispute that corn prices have risen substantially since the beginning of the summer. Between June 1 and August 24, 2012, corn prices increased approximately 40 percent in most markets (corn prices have subsequently receded, but remain above early-summer levels). It is further inarguable that the price increases for corn and other agricultural commodities during this period were caused by drought conditions that sharply reduced crop yields across much of the Midwest. As stated by Purdue University economist Christopher Hurt, “Ethanol didn’t cause the high prices we’re seeing. The drought did.”

60 Id. at 47,172.
As a direct result of drought conditions that grew progressively worse during the summer, USDA reduced its estimate for the 2012 corn crop from 14.79 billion bushels (bbu.) in June to 12.97 bbu. in July. The estimate was further reduced to 10.79 bbu. in August and 10.73 bbu. in September. Figure 4 shows how corn prices directly responded to worsening drought conditions, reflected here by USDA’s weekly crop condition ratings. As crop conditions deteriorated in late June, July, and early August, corn prices rapidly increased. Notably, as the condition of the crop stabilized in late August and September and harvest began, corn prices receded somewhat. Without question, the drought—not the RFS—was the cause of the corn price increase that the governors claim is harming their states’ livestock and poultry producers.

**Figure 4. Corn Price and Crop Condition**

Clearly, the recent run-up in corn prices is the result of a drought-induced supply shock, and not the result of any variation in demand. This fact is not disputed by the governors. Instead, they explicitly acknowledge that the drought is the central cause of the higher feed costs facing their states’ livestock and poultry producers. North Carolina Gov. Perdue writes, “…our nation is undergoing a severe, prolonged drought that is of historic proportions and is causing widespread damage to many of the most productive agricultural regions of our country…” Gov. Perdue acknowledges that corn prices increased “as much as $1.40 per bushel” as the drought worsened in July, adding that “[c]rop conditions since July have worsened and prices shot further upward.” The letter goes on to connect “severe lack of rainfall” to “accelerating prices for corn and soybeans, which have a severe economic impact on the State of North Carolina…” Similarly, Arkansas Gov. Beebe writes, “[t]he declining outlook for this year’s corn crop and accelerating prices for corn and other grains are having a severe economic impact on the State…”, and later acknowledges “…drought may have triggered the price spike in corn…” The letters from Georgia, New Mexico, and Texas also overtly blame the drought as the underlying cause of higher feed costs.
We agree with the governors that any reasonable analysis of the factors driving the grain market this summer would lead to the natural conclusion that the drought was the fundamental cause of higher prices. We strongly disagree, however, with the governors’ tortured logic suggesting that current higher feed costs have anything to do with the RFS or the ethanol industry’s consumption of corn during the period in which prices increased. As shown in Figure 5, and as discussed above in these comments, the ethanol industry’s consumption of corn actually fell 14 percent between the week ending June 8 and the week ending July 20 as the drought worsened and corn prices increased. It is simply illogical to suggest that increased use of corn by the ethanol industry was responsible for the corn price increase during the summer of 2012 when, in fact, the industry reduced its use of corn during this period.

Figure 5. Corn Price and Ethanol Production

![Figure 5. Corn Price and Ethanol Production](image)

Sources: USDA and EIA

The negligible impact of the RFS on corn prices is further demonstrated by recent economic modeling results that show waiving the RFS would not meaningfully reduce corn prices. These modeling results are discussed in detail in the following section.

C. North Carolina and Arkansas Have Not Shown that Waiving the RFS Would Cure the Harm They Claim is Resulting From Higher Feed Prices.

As explained above, the letters from North Carolina and Arkansas (as well as the letters from Georgia, New Mexico, and Texas) merely cite the fact that feed costs increased during the summer of 2012 as the drought intensified. While the governors make nebulous attempts to tie the recent spike in feed costs to RFS implementation, there is absolutely no defensible showing in their letters, or elsewhere, that the two are linked in any way. Even if such a link could be established and the governors could show severe harm (which they cannot), no waiver could be granted by the Agency because doing so would not redress the claimed harm.
While the RFS serves as a tremendously important policy for providing the type of market certainty and investor confidence needed for long-term growth in renewable fuels, it is undeniable that there is strong demand for ethanol in the short-term irrespective of the RFS. As such, a waiver would have very little impact on ethanol output over the one-year waiver period, and in turn, very little impact on corn demand and prices. However, as discussed elsewhere in these comments, a waiver would send negative signals through the renewable fuels, agriculture, automotive, banking, and other sectors that would undermine the longer-term intentions of the RFS program.

i. There is Strong Demand for Ethanol Irrespective of the RFS Requirements in the Short Term; Thus, Waiving the RFS Would Not Significantly Affect Ethanol Output During the One-Year Period of the Suspension

Ethanol’s unique properties and price competitiveness make it a valuable and important input for gasoline refiners and blenders. As the availability of ethanol has increased in recent years, gasoline refiners and blenders have invested in changes to production processes and infrastructure to take advantage of ethanol’s cost and unique characteristics. Therefore, it is unlikely that a waiver of the 2013 RFS requirements would significantly reduce ethanol demand, and in turn, ethanol output during the one-year period of the suspension.

Since the inception of the substantive regulatory requirements of the RFS in 2007, obligated parties have always blended more ethanol than required (refer to Figure 1). In some years the amount of “discretionary blending” above and beyond RFS requirements has been several billion gallons. This confirms the economic competitiveness and value of ethanol.

Ethanol has long been utilized by refiners and blenders as an oxygenate for reformulated gasoline (RFG). Since 1996, RFG has accounted for roughly one-third of the U.S. gasoline pool; and since the 2005-2006 timeframe, ethanol has served as the predominant oxygenate for RFG blending. While EPAct eliminated the oxygen content requirement for RFG, it also established that refiners and importers must maintain the level of toxic air pollutant reduction achieved on average during 2001 and 2002. As a consequence of this so-called “anti-backsliding” provision, refiners generally elected to continue adding ethanol to RFG to ensure the level of toxic air pollution from the use of RFG did not exceed 2001-2002 levels.

Ethanol also is used by refiners as an economical source of octane. State laws and regulations set minimum standards for octane levels in gasoline, including gasoline containing ethanol, in the form of a minimum anti-knock index (AKI). In most states the minimum AKI requirement for “regular” grade gasoline is 87 (however, in some high-altitude areas it is 85). The blending octane value for ethanol is typically estimated at 112.5. Therefore, an AKI base gasoline would increase to approximately 87 AKI (the minimum needed for retail sale in most states) with the addition of 10 percent ethanol. Using ethanol in lieu of other octane enhancers has allowed refiners to reduce the use of energy-intensive alkylation and reforming units, significantly reducing gasoline production costs. Increased use of ethanol also reduces throughput for

catalytic cracking, which is among the most energy-intensive and costly operations in the refinery.

In terms of price competitiveness, ethanol’s discount to other octane sources has widened considerably in recent years. This is due primarily to changes in the value of the byproducts from catalytic reforming in the oil refining process (i.e., due to significantly increased availability of “light end” products from growth in shale gas production, the burden of profitability in the reforming process is now largely dependent on high octane reformate). Figure 6 shows the 2012 weekly price of ethanol compared to three other common octane sources that are extracted from reformate: benzene, toluene, and xylene (known as “BTX compounds”).

As shown in Figure 6, ethanol has regularly sold for $1.50-$2.25 per gallon less than alternative sources of octane in 2012. For obvious economic reasons, refiners would be hesitant to transition away from ethanol to other octane sources even if a waiver of the RFS was granted. This is especially true because supplies of alternative sources of octane are not sufficient to replace large volumes of ethanol. At current prices, replacing ethanol with BTX compounds or other octane sources is economically infeasible and would significantly contribute to higher retail gasoline prices.

Several experts have examined the potential response of the refining sector to a waiver of the RFS requirements. While the reaction of the refining sector to a potential waiver is somewhat uncertain, the general consensus among experts is that a waiver would not significantly affect demand for ethanol during the one-year waiver period. According to an analysis by Morgan Stanley Research, “There are significant structural impediments to moving away from ethanol. First, blenders cannot simply switch to using more gasoline blendstock, as this would not meet
industry octane/oxygenate requirements. At present, ethanol is the most available and least expensive source of both."\(^{63}\)

Put more simply, Andy Lipow, president of Lipow Oil Associates and former Amoco Oil executive, recently said of ethanol: "…we just need it, and it’s going to be very difficult for the refining system to change [emphasis added]."\(^{64}\)

Further, the growing export market would continue to provide a source of robust demand for ethanol that U.S. plants could satisfy in the event domestic demand was reduced under a waiver of the RFS. In 2011, the U.S. exported a record 1.19 billion gallons of ethanol, accounting for roughly 8.5 percent of total ethanol production.

ii. Because Ethanol Output Would be Largely Unaffected by a One-Year Waiver of the RFS, Corn Demand and Corn Prices Also Would be Largely Unaffected

A number of independent economists and market analysts have recently examined the likely impacts of waiving the RFS on corn prices and overall feed costs. These analyses consistently demonstrate that waiving the RFS would not meaningfully reduce corn prices. A partial or full waiver of the RFS requirements for 2013 might result in just a 0.5 to 7.4 percent reduction in average corn prices for the 2012/13 marketing year, according to the available analyses (see Figure 7). These price effects are a far cry from the exaggerated and unsupported figures cited in the NPPC et al. letter (see Attachment 2).

Figure 7. Effects of RFS Waiver on 2012/13 Corn Price; Results from Five Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>No Waiver of RFS</th>
<th>Waiver of RFS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARD (Aug. 2012)</td>
<td>$7.82</td>
<td>$7.24</td>
</tr>
<tr>
<td>Purdue (Aug. 2012)</td>
<td>$7.89</td>
<td>$7.46</td>
</tr>
<tr>
<td>UIUC/FAO (Sep. 2012)*</td>
<td>$7.90</td>
<td>$7.80</td>
</tr>
<tr>
<td>Cardno-Entrix [&quot;Low&quot; Case] (Sep. 2012)</td>
<td>$8.28</td>
<td>$7.83</td>
</tr>
<tr>
<td>FAPRI (Oct. 2012)</td>
<td>$7.87</td>
<td>$7.83</td>
</tr>
</tbody>
</table>

\(^{*}\)UIUC/FAO price reduction with waiver is implied based on USDA 2012/13 season-average price


The trivial effects on corn price are explained by the ethanol demand factors detailed above, as well as the inherent flexibilities built into the RFS that were discussed elsewhere in these comments. Further, some recent studies show that net feed costs could actually increase under certain scenarios where an RFS waiver resulted in reduced biofuel output. Meanwhile, and as described in more detail below in these comments, gasoline prices for consumers would increase if ethanol output did decrease in response to a waiver.

The most recent and most comprehensive analysis of the potential impacts of an RFS waiver on agriculture markets was conducted by FAPRI at the University of Missouri. FAPRI estimated that a full waiver of the RFS renewable fuel requirements in 2012/13 might be expected to reduce corn prices by just 0.5 percent, or $0.04 per bushel. The report found that a waiver might reduce corn use for ethanol by just 1.3 percent in 2012/13 and would only increase corn use for livestock feed by 0.6 percent, or 25 million bushels (this is roughly two days’ worth of corn consumption by the livestock sector). As discussed above, it was recently confirmed that livestock operations in the southeastern United States have purchased 30 million bushels of corn imports from Brazil—more than the amount of corn estimated by FAPRI that might become available to the livestock industry domestically via a waiver of the RFS. Even these trivial effects are characterized by FAPRI as “the extreme case,” as a partial waiver would likely result in “[m]ore modest reductions.” FAPRI attributes the modest effects of a waiver to the fact that “…overall ethanol use and production are projected to be motivated mostly by crop and fuel market conditions in the current marketing year, not the RFS.”

An analysis conducted by the University of Illinois at Urbana-Champaign and the U.N. Food and Agriculture Organization (FAO) found, “…the total implied support [from the RFS] to corn prices is in the range of $0.11 to $0.14 per bushel. This suggests we might see limited relief in corn prices (via a reduction in ethanol and corn demand) from a mandate waiver…” The report suggests that the RFS has little effect on corn prices as long as RIN prices are low and the combined availability of physical gallons and RINs is greater than the RFS requirements. Assuming average corn prices of $7.90 per bushel, an $0.11 to $0.14 per bushel impact would be the equivalent of a 1.4 to 1.8 percent reduction in corn prices.

Similarly, the recent Purdue study referenced earlier found a partial waiver might reduce corn prices 5.6 percent over a no-waiver scenario in which compliance is achieved in part with excess previous-year RINs. This result led the Purdue authors to conclude that a “…partial waiver certainly is not a ‘stroke of the pen’ solution…” to higher feed costs.

An economic analysis of potential RFS waiver impacts on net feed costs performed by Cardno-ENTRIX (see Attachment 1) similarly found that if a partial waiver reduced ethanol output in

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2013, corn prices might be reduced by just 5.4 to 5.8 percent. As discussed in more detail below, the Cardno-ENTRIX study took the additional step of examining the effects of a waiver on other key feed ingredient prices, and total feed costs for beef, dairy, swine and poultry.

The Iowa State University/CARD study referenced earlier also found a waiver of the RFS would have only marginal impacts on corn prices. The CARD modeling showed a full waiver of the RFS in 2013 resulting in a 7.4 percent decrease in corn prices. Accordingly, the author concluded, “The desire by livestock groups to see additional flexibility on ethanol mandates may not result in as large a drop in feed costs as they hope.”

It should be noted that these estimated corn price effects are generally of the same magnitude as those estimated by EPA in 2008 when the Agency was considering the likely impacts of granting the waiver requested by Texas. Based on an analysis that utilized economic models maintained by Iowa State University, EPA determined a 50 percent waiver of the RFS might be expected to reduce corn prices by 1.2 to 4.7 percent. These results led the Agency to conclude a waiver would have “no impact” on corn and food prices. 68

Many other economists and market analysts have examined the likely effects of a waiver on corn prices and ethanol production using more qualitative methods. These analyses (which include reports from the University of Illinois, International Energy Agency, Chicago Mercantile Exchange, Morgan Stanley, Bank of America/Merrill Lynch, Societe Generale, Eurasia Group, and others) generally arrive at the same conclusions as the modeling-based analyses discussed above.

Indeed, the demand and price for corn may not change at all in the short term in response to a waiver of the RFS requirements. The estimated corn price reductions from the modeling exercises discussed above all are premised on the assumption that a waiver would lead to at least some reduction in ethanol output. As we have demonstrated, demand for ethanol in the short term is strong irrespective of the RFS program, and thus, ethanol output (and therefore corn use for ethanol) may not be reduced at all in response to a waiver.

iii. If a Waiver Did Reduce Biofuel Output, as Desired by Petitioners, Corn Price Reductions Would Be Partially Or Fully Offset By Increased Prices for Other Feed Ingredients.

As described above, economic modeling results suggest a waiver of the RFS might reduce 2012/13 corn prices by 0.5 to 7.4 percent. However, corn is only one feed ingredient for typical livestock and poultry rations, and the effect of a waiver on other key feed ingredients could be to raise their prices. That is, if a waiver reduced demand for ethanol and biodiesel, supplies of important animal feed co-products would also be reduced, and thus, prices would increase.

Distillers grains, corn gluten feed and corn gluten meal are co-products of ethanol production that are fed to livestock and poultry worldwide; every bushel of corn processed by an ethanol plant produces 2.7-2.8 gallons of ethanol and approximately 16-17 pounds of animal feed. The

U.S. ethanol industry produced some 40-42 million tons of animal feed in 2011, including 37-38 million tons of distillers grains. According to a recent publication of the U.N. FAO:

Because of the abundant supply, excellent feeding value, and low cost relative to maize and soybean meal, DG (distillers grains) has become the most popular alternative ingredient used in beef, dairy, swine and poultry diets in the United States and in over 50 countries worldwide. Dietary inclusion rates have been increasing in recent years because of the increasing price of maize and the high energy value DDGS provides to animal feeds at a lower cost. 69

Additionally, increased production of biodiesel from soybean oil has facilitated growth in soybean meal production in recent years. Soybean meal is a valuable source of protein for livestock and poultry worldwide; it is produced as a co-product of soybean oil. Thus, increased demand for soybean oil drives increased production of, and lower prices for, soybean meal. The U.S. soybean crushing industry produced approximately 35 million tons of soybean meal in 2011. One recent analysis examined the likely impacts of reducing biodiesel production by 25-50 percent, finding, “Soybean meal prices would increase; livestock producers could possibly pay anywhere from $34 to $50 per ton more for their soybean meal…” 70

As referenced earlier, Cardno-ENTRIX performed an analysis of the potential impacts of a waiver of the RFS on total net feed costs for beef and dairy cattle, hogs, broiler chickens, and laying hens in 2012/13 (Attachment 1). The study found that if a waiver did result in reduced output of ethanol and biodiesel, supplies of distillers grains and soybean meal would be reduced and their prices would rise. Thus, even with a slight reduction in corn prices, total net feed costs actually increase for all species except for beef:

…[W]hen viewed in the context of changes in the prices for other key feed ingredients such as distillers dried grains with solubles (DDGS) and soybean meal, the change in total net feed costs for livestock, dairy and poultry feeders would either increase slightly or decrease by a negligible amount if a waiver was granted. This is due to the fact that if a waiver reduced biofuel output, it would also reduce the available supply of DDGS and soybean meal, which would naturally lead to higher prices for those key feed ingredients.

The analysis shows that if ethanol and biodiesel production were each reduced 500 million gallons under a waiver of the RFS, total feed costs increase 4.1 percent for dairy, 0.8 percent for layers, 0.5 percent for hogs, and 0.2 percent for broilers. For beef cattle, feed costs might fall by just 0.6 percent with a waiver. These results are corroborated directionally by the October 2012 FAPRI paper referenced above, which found a 1.3 percent reduction in ethanol output could lead to slightly higher distillers grains and soybean meal prices. According to FAPRI,

“Lower corn price means lower feed costs for livestock producers, unless offset by slightly higher soybean meal and distillers grains prices.” [emphasis added]  

Clearly, the governors and the livestock and poultry groups supporting a waiver did not consider the impacts of a waiver on the prices for feed ingredients other than corn. As the Cardno-ENTRIX and FAPRI reports demonstrate, if a waiver did reduce biofuel output and corn prices fell marginally, net feed costs may remain unchanged or actually increase slightly.

iv. Because Corn Prices and Net Feed Costs Would Be Largely Unaffected By a Waiver, Retail Food Prices Would Also Be Largely Unaffected.

Gov. Beebe’s letter suggests higher feed costs may “…increas[e] food prices for consumers worldwide.” Similar claims are made in some of the other governor letters and comments from livestock and poultry trade groups. The letters do not, however, attempt to characterize the impact of the RFS itself on food prices or explain how waiving the RFS would change retail food prices.

As shown above, a waiver of the RFS might actually result in slightly higher feed costs for some species due to reduced output of key animal feed co-products. Thus, waiving the RFS could actually put upward pressure on retail food prices. However, for the sake of argument, we examine the impact on consumer food prices of a 5 percent reduction in corn price (consistent with the upper end of the RFS waiver modeling results discussed earlier) in isolation of changes for other feed ingredient costs.

According to the USDA, a 50 percent increase in the farm price of corn translates into a 0.5 to 1.0 percent increase in retail food prices, as measured by the Consumer Price Index (CPI).  

Thus, every 1 percent increase or decrease in the price of corn translates to a 0.01 to 0.02 percent increase or decrease in the CPI for food. Accordingly, if a waiver of the RFS reduced corn prices 5 percent, the expected reduction in the CPI for food would be 0.05 to 0.10 percent. This means a waiver of the RFS might be expected to reduce the average household’s annual food bill by just $3.16 to $6.32, or roughly $0.01 to $0.02 per household per day. Certainly, such a minor impact on food spending could not be considered “harm,” much less “severe harm,” especially when balanced against the impacts of an RFS waiver on household expenditures on fuel (discussed below).

The negligible impact of the RFS on retail food prices is further underscored by the results of recent economic modeling by FAPRI, which were discussed above. The FAPRI work estimates that retail beef prices would be $5.30 per pound in 2012/13 with or without a full waiver of the RFS. Similarly, a waiver might result in retail pork prices being reduced by just $0.01 from $3.59 to $3.58 per pound, a 0.04 percent change.  

71 Thompson, W., et al. (Oct. 2012).  
73 Thompson, W., et al. (Oct. 2012).
These results are corroborated by a recent study conducted by Iowa State University Professor Bruce Babcock and commissioned by the International Centre for Trade and Sustainable Development (ICTSD). Using a partial equilibrium economic model, the study estimates the impact of U.S. ethanol policies (including both the RFS and now-defunct volumetric ethanol excise tax credit) on crop and food prices for the 2005-2009 U.S. crop marketing years. The estimates are made by “back-casting” what prices would have been had the RFS and tax credit not existed over this period. The study concluded that ethanol policies “…have not been the major driver of higher commodity prices.” Further, the study found:

The impact of US ethanol policies through higher feed costs on consumer prices of eggs, beef, pork and broilers was even smaller. The largest impact on any of these products was a two-cent-per-dozen (1.1 percent) increase in egg prices. All other product prices were impacted by much less than 1 percent. These results indicate that US ethanol subsidies during this period had little impact on consumer prices and quite modest impacts on crop prices. [emphasis added]

In fact, the analysis found that retail prices for chicken wouldn’t have been any different at all had the RFS not existed in the five years from 2005/06 to 2009/10. Similarly, retail beef and pork prices wouldn’t have been any different at all without the RFS, with the exception of one year when prices would have been higher by $0.01 per pound. As explained by Babcock, “[t]he reason for such a small price impact is that feed prices make up a small share of retail prices and because the feed cost impacts from ethanol subsidies over this period are small.”

Additionally, USDA does not expect the drought to significantly affect retail food prices. According to the USDA, “Retail food price inflation has averaged 2.5-3 percent each year on average for the past 20 years, and 2012 is no different.” [emphasis added]. USDA projects annual food inflation at 3 percent in 2012. In 2013, as the impact of the drought works its way through to the retail level, USDA projects food inflation to reach 3.5 percent, which would be slightly higher than the 20-year average, but “…below some of the recent [food] inflation spikes in 2004, 2007, 2008 and 2011.”

Figure 8 shows historical year-over-year food inflation rates. Recent annual food inflation rates have not deviated significantly from historical norms. In 2010, food inflation was less than 1 percent and the lowest in nearly 50 years; meanwhile, the ethanol industry used more corn that year than it is likely to use in 2012.

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74 Babcock, B., for ICTSD (June 2011). The Impact of US Biofuel Policies on Agricultural Price Levels and Volatility. Issue Paper No. 35. Note: ICTSD is a Geneva-based non-governmental organization that has been financially supported by OXFAM, the World Health Organization, United Nations, the National Wildlife Federation, and other groups.
76 Id.
VII. Petitioners Have Failed to Consider the Economic Benefits of the RFS that Would be Foregone if a Waiver Did Result in Reduced Biofuel Output.

As noted above, EPA established in its denial of the 2008 waiver request from Texas that it must “…look broadly at all of the impacts of…a waiver” on the national economy, not just the narrow economic impacts to one industry in one or two states.77 Accordingly, EPA considered the impacts of a potential waiver on gasoline prices and found “…reducing the ethanol production levels will increase gasoline demand and increase gasoline prices.”78 The Agency further found the impacts of a waiver on consumer fuel prices would be “…in the opposite direction from any impact on the livestock industry and food prices in general.”79 In other words, if a waiver resulted in reduced biofuel output, the reduction in food prices would be offset by increases in fuel prices.

The same is true today, but to an even larger extent. Several recent studies have examined the impact of increased ethanol blending on gasoline prices. The general consensus of these analyses is that increased ethanol consumption has significantly reduced gasoline prices in recent years. A 2012 update to a paper by authors at CARD that was peer-reviewed and published in Energy Policy concluded that “…over the period of January 2000 to December 2011, the growth in ethanol production reduced wholesale gasoline prices by $0.29 per gallon

78 Id. at 47,178.
79 Id. at 47,179.
on average across all regions.” The paper further found that, “[b]ased on the data of 2011 only, the marginal impacts on gasoline prices are found to be substantially higher given the increasing ethanol production and higher crude oil prices. The average effect across all regions increases to $1.09/gallon…”

Similarly, a 2012 study by authors at Louisiana State University found, “…every billion gallons of increase in ethanol production decreases gasoline price as much as $0.06 cents. Adding ethanol to gasoline has the same impact on gasoline as a positive shock to gasoline supply.” Thus, the paper notes that the use of 13 billion gallons of ethanol (2010 estimated consumption) “…can lower the gasoline price as much as $0.78 cents per gallon.” A 2008 analysis conducted by McKinsey and Company for the National Renewable Energy Laboratory found that a nationwide E10 blend (reflective of current ethanol consumption levels) could reduce mile-adjusted gasoline prices by up to $0.50 per gallon.

Proponents of a waiver will surely cite a recent paper by Knittel and Smith that was self-published (and not peer-reviewed) as somehow providing evidence that ethanol does not reduce gasoline prices. To the contrary, however, the Knittel and Smith paper does show ethanol reduces gasoline prices, albeit, they say, by a smaller magnitude than estimated by nearly every other economist who has examined this issue. It should be noted that the CARD authors responded immediately to the Knittel and Smith paper with additional substantive analyses. According to the CARD response:

Knittel and Smith present seven alternative versions of our model all of which apparently show a lower impact of ethanol production on gasoline prices. Four of these models are based on the flawed assumption that one can use the change in refiner’s margin and the change in gasoline prices interchangeably. The remaining three models all suffer from an obvious and endogeneity problem that when corrected results in results that are similar to ours. What is then left of their paper is a series of regressions of unrelated variables without appropriate controls, and with predictable results. I believe that the magnitude of all our results are reasonable and that they can be used in the current policy debate. Our results show that the closure of ethanol plants will have a serious impact on gasoline prices. [emphasis added]

Thus, if a waiver of the RFS did in fact reduce ethanol output, as desired by petitioners, retail gasoline prices would increase. Any benefit to the economy of slightly lower food prices

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84 Du & Hayes responses to Knittel & Smith available at http://www.card.iastate.edu/.
(shown above to be in the range of $3.16-6.32 per household) would be more than offset by higher fuel prices.

As an example, if a waiver of the RFS reduced ethanol output by 1 billion gallons (an amount within the range of scenarios examined by aforementioned Purdue and Iowa State University studies), gasoline prices could increase by at least $0.06/gallon (per the Louisiana State University study). Thus, a waiver would increase the average household’s spending on gasoline by $66 per year, based on average household gasoline consumption of 1,100 gallons.\(^8\) Clearly, any reductions to food prices that might occur as a result of a waiver would be overwhelmed by increases to gasoline prices. If waiving the RFS in 2013 did reduce ethanol output, it would do more harm to American consumers than if EPA were to deny the waiver requests and allow the program to continue to function as designed.

**VIII. Waiving the RFS Would Send a Negative and Disruptive Signal to Obligated Parties, U.S. Farmers, Next Generation Biofuel Producers and Investors, Feedstock Developers, Auto Manufacturers, and Other Market Participants. Accordingly, EPA Would Need to Deny the Request Even If Petitioners Had Satisfied the Statutory Criteria.**

As discussed above, a decision to waive the RFS is ultimately at the discretion of the Administrator. Thus, even if the high hurdle for a waiver were cleared, EPA retains the authority to deny a request in light of other considerations. One of the express purposes of the legislation establishing, and later expanding, the RFS was to create market certainty for renewable fuels producers and investors, gasoline refiners and blenders, farmers, and many other market participants up and down the supply chain. EPA recognized this intent when it finalized the regulations implementing the original RFS: “The RFS program provides the certainty that at least a minimum amount of renewable fuel will be used in the U.S., which in turn provides some certainty for investment in production capacity of renewable fuels.”\(^8\)

While it is widely believed that suspending the RFS requirements in 2013 would have little or no impact on ethanol output (and, in turn, corn prices) during the period of the waiver, a decision by EPA to waive the program undoubtedly have long-term negative repercussions and undermine the program’s intent by sending negative and disruptive signals to a wide spectrum of market participants. Indeed, in recently commenting on the prospect of an RFS waiver, Agriculture Secretary Tom Vilsack stated, “My concern is that we send a signal to investors of, perhaps, less confidence in the industry.”\(^8\)

For example, obligated parties under the RFS may perceive a short-term suspension of the program as a signal that the national commitment to renewable fuels is faltering. As discussed

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above, it is unlikely that a one-year waiver itself would cause refiners and blenders to substantially reduce their use of ethanol, but a waiver could create a political environment conducive to efforts intended to weaken the RFS in the longer term. A recent analysis by the Energy Policy Research Foundation (EPRINC) suggests any action that might weaken or eliminate the RFS requirements for multiple years could lead to a significant reduction in biofuels use.\textsuperscript{88} The EPRINC report asserts that in the absence of the RFS over multiple years, the refining sector may opt to replace up to half of its current ethanol use by ramping up imports of finished gasoline, increasing gasoline yields at the expense of distillate production, increasing crude oil throughput, or other means. Clearly, any of these alternatives to using ethanol would severely undercut Congress’ intent with EISA, which was to reduce dependence on fossil fuels, diversify the domestic energy portfolio, and improve air quality. Further, such a chain of events would lead to tens of thousands of lost jobs in the United States and significantly reduced economic output from the American agriculture and manufacturing sectors.

Waiving the RFS would also interrupt and delay important investments in new feedstocks and advanced biofuels technologies. Several commercial-scale advanced biofuel facilities, including cellulosic ethanol biorefineries, are currently under construction across the country. Many more such facilities are in the financing and development stages. Suspending the RFS would undoubtedly cause investors and advanced biofuel start-ups to question the Administration’s commitment to the program. The consequence of such uncertainty would be diminished research and development, reduced investment, and delayed commercialization of the technologies that will be needed to meet the long-term requirements of the RFS. A recent letter to the President from the groups representing advanced biofuel producers and developers underscored the importance of the RFS to the development of next generation biofuels (see Attachment 3).

Without [the RFS], the risk/uncertainty metrics for most investors in the advanced biofuels space will be very high, and the development of these fuels will stall. The last thing the advanced biofuels industry needs is alterations to the RFS - especially those based on specious arguments - that will effectively erode investor confidence in the program and increase the policy and market uncertainty that is already pervasive in the liquid transportation fuel marketplace.

Investments in biofuel distribution infrastructure and automotive technologies would also be disrupted by a waiver of the RFS. Importantly, a waiver would dramatically slow or stop the marketplace transition to the higher-level ethanol blends (i.e., greater than E10) that will needed to ensure compliance with the RFS in the longer term. As noted by Morgan Stanley Research, a waiver “…would set a very negative precedent for future government endeavors that required side-by-side private sector investment (i.e., the U.S. would walk away just a few years into the program, leaving private investors in a lurch).”\textsuperscript{89}

Further, corn farmers may interpret a waiver of the RFS as a signal to plant fewer acres to corn in 2013. If less corn acres were planted in response to a waiver, but demand for ethanol was unchanged (as many believe will be the case), the effect of a waiver would actually be to

\textsuperscript{88} EPRINC (Sep, 2012). Ethanol’s Lost Promise. Available at http://eprinc.org/?p=1033.
\textsuperscript{89} Morgan Stanley Research (Aug, 7, 2012). Ethanol Demand a Function of Economics, Not RFS.
increase corn prices. The aforementioned FAPRI analysis supports this notion, showing that a waiver would cause farmers to decrease corn plantings by more than 1 million acres in 2013.\textsuperscript{90}

IX. Conclusion

As these comments have demonstrated, petitioners have entirely failed to show that current conditions satisfy the criteria necessary to effectuate a waiver of the RFS. Not only did the governors fail to show that current economic conditions facing the agriculture sectors in their states rise to the standard of "severe harm," but they also failed to show that the RFS itself is the cause of the alleged harms. Further, the petitioners failed to balance the alleged harms against the economic benefits (namely, lower gasoline prices) that would be foregone if a waiver did result in reduced ethanol output. Finally, the governors did not, and cannot, establish that waiving the RFS would alleviate the alleged harms occurring in their states' agriculture sectors. Due to these failures by the petitioners, EPA has no choice but to deny the waiver requests.

\textsuperscript{90} Thompson, W., et al. (October 2012).
Attachment 1:

*Impact of Waiving the Renewable Fuel Standard on Total Net Feed Costs*

John M. Urbanchuk

Cardno-ENTRIX

September 2012
Severe drought has sharply reduced yields of corn, other feed grains, soybeans, and many forage crops and pushed market prices to record levels. Prices of other commodities such as wheat and barley, whose yields have not been as affected by drought, also have increased sharply. These commodity price increases have driven production costs higher for the livestock, dairy, and poultry industries, as well as the ethanol industry and other grain users. Higher prices have also ignited calls from livestock, dairy and poultry producers to waive the volumetric requirements of the Renewable Fuel Standard (RFS2). The RFS2 conventional renewable fuel requirement for 2012 is 13.2 billion gallons and increases to 13.8 billion gallons in 2013. As of this writing, Governors of six states (AR, DE, MD, NC, TX and VA) have requested waivers from the 2013 RFS2 renewable fuel requirements. Their basic argument is that if the RFS2 is waived, less corn would be used to produce ethanol and fewer soybeans would be crushed for oil to make biodiesel; in turn, they argue, more grain and oilseed meal would be available to feed animals, and presumably feed prices would fall.

This study quantifies the impact of waiving the 2013 RFS2 requirements on total net feed costs for beef cattle, dairy, swine and poultry in the U.S. Our findings suggest that reducing ethanol and biodiesel production consistent with a waiver from the RFS2 requirements in 2013 would marginally reduce the prices of corn and soybeans and potentially increase their availability for feeding by a slight amount. However, when viewed in the context of changes in the prices for other key feed ingredients such as distillers dried grains with solubles (DDGS) and soybean meal, the change in total net
Impact of Waiving the RFS on Total Net Feed Costs

Feed costs for livestock, dairy and poultry feeders would either increase slightly or decrease by a negligible amount if a waiver of the RFS2 was granted. This is due to the fact that if a waiver reduced biofuel output, it would also reduce the available supply of DDGS and soybean meal, which would naturally lead to higher prices for those key feed ingredients.

Assumptions

As indicated above, the RFS2 conventional biofuel mandate for 2012 is 13.2 billion gallons and 13.8 billion gallons in 2013. It is unclear how much ethanol and biodiesel output would be reduced in response to a full or partial waiver of the 2013 RFS2 requirements. The uncertainty stems from a number of factors including the degree of inflexibility in the gasoline refining industry to replace ethanol with other octane sources and oxygenates, refining economics, and the supply of excess RIN credits from production in prior years that will enable obligated parties (i.e. blenders and refiners) to meet some portion of their RFS2 obligations with “paper credits” rather than wet gallons.

To reflect this uncertainty we have evaluated two scenarios for biofuel production under a waiver:

- A “Low Scenario” in which ethanol production in 2013 is reduced by 500 million gallons, or 3.7% below 2012 levels, and biodiesel production is reduced by 500 million gallons, or 50% below 2012. The assumed change in biodiesel production reflects the unprofitability that would likely accompany a waiver of the RFS2 biodiesel usage requirements.

- A “High Scenario” in which ethanol production in 2013 is reduced 1,425 million gallons or 10.5% from 2012 levels. No additional reduction in biodiesel production is included beyond the reduction in the Low Scenario.

These scenarios are consistent with recent analyses of RFS2 waiver impacts by Iowa State University and Purdue University. The Iowa State analysis estimated a full waiver would reduce ethanol output by 500 million gallons in 2012/13, while the Purdue study showed a partial waiver resulting in a 1,400 million gallon reduction over the case where excess RINs are used for compliance.1,2

Impact of Waiving the RFS on Total Net Feed Costs

Reductions in corn and soybean oil demand consistent with biofuel production in each of these scenarios were evaluated using a proprietary model of the U.S. agriculture sector that incorporates the supply, demand, and price projections sourced from the August 2012 USDA WASDE report. Specific assumptions for biofuel underlying the model include:

- 98% of ethanol demand uses corn as the feedstock
- 90% of corn ethanol is produced in dry mills with an average ethanol yield of 2.75 gallons per bushel
- 10% of corn ethanol is produced in wet mills with an average ethanol yield of 2.50 gallons per bushel
- 17 pounds of DDGS are produced from every bushel of corn processed in dry mills.
- 50% of biodiesel is produced from soybean oil
- Corn not used for ethanol production under a waiver and soybeans not crushed for oil to produce biodiesel would be available for other use (e.g. feed, export), and demand shifts reflect changes in relative prices.
- Typical feed rations for each species are based on published recommendations of specialists at Universities and Extension Services. We assumed rations that incorporate near-maximum recommended quantities of DDGS.

Analysis

A waiver of the RFS2 requirements in 2013 might reduce demand for, and production of, ethanol and biodiesel. Reduced production of biofuels would lower demand for corn for ethanol and soybean oil for biodiesel which would, in turn, reduce crush demand for soybeans. As indicated above there is considerable uncertainty about the amount by which a waiver for 2013 would reduce biofuel demand. To reflect this we modeled two different scenarios described above.

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2 Babcock, Bruce. “Preliminary Assessment of the Drought’s Impacts on Crop Prices and Biofuel Production”. CARD Policy Brief 12-PB-7, July 2012
Impact of Waiving the RFS on Total Net Feed Costs

These initial changes in corn and soybean use were evaluated through the use of an econometric model of the U.S. agriculture sector to determine shifts in demand for other uses (e.g. feed and exports) and prices. The resultant price changes were used as inputs to estimate the impact on net feed rations for beef cattle (finishing steers); swine (farrow-to-finish); dairy cattle; broilers and laying flocks. The basic rations used in this analysis incorporate near-maximum recommended amounts of DDGS and are based on recommendations of University nutritionists and Extension Service specialists. The sources for livestock rations are shown in the accompanying bibliography.

Results

Reducing corn use for ethanol production slightly increases available supplies, marginally reduces corn prices and results in higher demand both for feed use and exports. All of these impacts are modest. Reductions in biodiesel production reduce the demand for soybean oil and crush demand for soybeans. As shown in Table 1, ethanol and biodiesel production in the Low Scenario both are reduced 500 million gallons. Corn use for ethanol falls 180 million bushels for the 2012-13 marketing season and soybean oil use is cut 1,688 million pounds, or the equivalent of 148 million bushels of soybeans.

The decline in demand for ethanol production results in slightly more corn used for feed and exports. In the Low Scenario, corn feed demand increases 100 million bushels and 25 million more bushels are exported. Ending stocks increase modestly and the average farm price of corn is expected to fall 5.5%, or $0.46 per bushel compared to the Base Case. By comparison, the recent study on the impact of drought on crop prices and biofuel production prepared by Iowa State Professor Bruce Babcock estimated a 4.6% decline in corn prices from removing the RFS2 mandate. The reduction in soybean oil demand for biodiesel reduces soybean crush demand by 155 million bushels and soybean prices are expected to fall $0.74 per bushel, or 4.5% from baseline levels.
Impact of waiving the RFS on total net feed costs

Table 1
Impact of waiver on selected agricultural variables 2012/13 marketing year
Low scenario: 500 million gallon ethanol reduction in 2013

<table>
<thead>
<tr>
<th></th>
<th>BASE</th>
<th>LOW</th>
<th>DIFF</th>
<th>% Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol production (Mil gal, Cal. Yr.)</td>
<td>13,633</td>
<td>13,135</td>
<td>-500</td>
<td>-3.7%</td>
</tr>
<tr>
<td>B100 production (Mil gal, Cal. Yr.)</td>
<td>1,000</td>
<td>500</td>
<td>-500</td>
<td>-50.0%</td>
</tr>
<tr>
<td>DDG production (Thou tons)</td>
<td>35,438</td>
<td>34,020</td>
<td>-1,418</td>
<td>-4.0%</td>
</tr>
<tr>
<td>Corn ethanol use (Mil bu)</td>
<td>4,500</td>
<td>4,320</td>
<td>-180</td>
<td>-4.0%</td>
</tr>
<tr>
<td>Corn feed use (Mil bu)</td>
<td>4,075</td>
<td>4,175</td>
<td>100</td>
<td>2.5%</td>
</tr>
<tr>
<td>Corn exports (Mil bu)</td>
<td>1,300</td>
<td>1,325</td>
<td>25</td>
<td>1.9%</td>
</tr>
<tr>
<td>Corn ending stk (Mil bu)</td>
<td>650</td>
<td>705</td>
<td>55</td>
<td>8.4%</td>
</tr>
<tr>
<td>Corn, farm price ($/bu)</td>
<td>$8.28</td>
<td>$7.83</td>
<td>-$0.46</td>
<td>-5.5%</td>
</tr>
<tr>
<td>DDGS price ($/ton)</td>
<td>$309.55</td>
<td>$329.72</td>
<td>$20.18</td>
<td>6.5%</td>
</tr>
<tr>
<td>Soy oil use biodiesel (Mil lb)</td>
<td>3,375</td>
<td>1,688</td>
<td>-1,688</td>
<td>-50.0%</td>
</tr>
<tr>
<td>Soybean equiv biodiesel (Mil bu)</td>
<td>296</td>
<td>148</td>
<td>-148</td>
<td>-50.0%</td>
</tr>
<tr>
<td>Soybean crush demand (Mil bu)</td>
<td>1,515</td>
<td>1,360</td>
<td>-155</td>
<td>-10.2%</td>
</tr>
<tr>
<td>Soybean farm price ($/bu)</td>
<td>$16.50</td>
<td>$15.76</td>
<td>-$0.74</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Soy meal production (Thou tons)</td>
<td>36,004</td>
<td>32,320</td>
<td>-3,684</td>
<td>-10.2%</td>
</tr>
<tr>
<td>Soy meal price, 48% pro ($/ton)</td>
<td>$495.05</td>
<td>$528.01</td>
<td>$32.96</td>
<td>6.7%</td>
</tr>
<tr>
<td>All hay price ($/ton)</td>
<td>$206.00</td>
<td>$197.00</td>
<td>-$9.00</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Corn silage ($/ton)</td>
<td>$40.00</td>
<td>$38.00</td>
<td>-$2.00</td>
<td>-5.0%</td>
</tr>
</tbody>
</table>

Initially these reductions seem beneficial for the livestock, dairy and poultry industry. However, lower ethanol output reduces production of DDGS by 4% and smaller soybean crush results in an anticipated reduction of 10.2% in soybean meal output. In both cases these reductions are expected to result in higher prices: $20 per ton, or 6.5% for DDGS and nearly $33 per ton, or 6.7% for high protein soybean meal. By comparison, the Babcock study estimated a 5.3% increase in soybean meal prices in response to a full RFS2 waiver. When viewed in the context of total feeding costs, these price increases for DDGS and soybean meal largely offset lower corn and soybean prices.

The results of the High Scenario, in which ethanol production is reduced 1,425 million gallons and biodiesel production by 500 million gallons, are shown in Table 2. In this Scenario, corn use for biodiesel (B100) production is expressed on a calendar year basis while data for corn, DDGS, soybeans and products, and other feeds are presented on a marketing year basis.

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3 Ethanol and biodiesel (B100) production is expressed on a calendar year basis while data for corn, DDGS, soybeans and products, and other feeds are presented on a marketing year basis.
ethanol falls 514 million bushels for the 2012-13 marketing season while soybean oil demand for biodiesel production is reduced the same as in the Low Scenario.

Table 2
Impact of Waiver on Selected Agricultural Variables 2012/13 Marketing Year
High Scenario: 1,425 Million Gallon Ethanol Reduction in 2013

<table>
<thead>
<tr>
<th>Variable</th>
<th>BASE</th>
<th>HIGH</th>
<th>DIFF</th>
<th>% Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol Production (Mil gal, Cal. Yr.)</td>
<td>13,633</td>
<td>12,208</td>
<td>-1,425</td>
<td>-10.5%</td>
</tr>
<tr>
<td>B100 Production (Mil gal, Cal. Yr.)</td>
<td>1,000</td>
<td>500</td>
<td>-500</td>
<td>-50.0%</td>
</tr>
<tr>
<td>DDG Production (Thou tons)</td>
<td>35,437</td>
<td>31,391</td>
<td>-4,046</td>
<td>-11.4%</td>
</tr>
<tr>
<td>Corn Ethanol Use (Mil bu)</td>
<td>4,500</td>
<td>3,966</td>
<td>-514</td>
<td>-11.4%</td>
</tr>
<tr>
<td>Corn Feed Use (Mil bu)</td>
<td>4,075</td>
<td>4,325</td>
<td>250</td>
<td>6.1%</td>
</tr>
<tr>
<td>Corn Exports (Mil bu)</td>
<td>1,300</td>
<td>1,350</td>
<td>50</td>
<td>3.8%</td>
</tr>
<tr>
<td>Corn Ending Stk (Mil bu)</td>
<td>650</td>
<td>864</td>
<td>214</td>
<td>32.9%</td>
</tr>
<tr>
<td>Corn, Farm price ($/bu)</td>
<td>$8.28</td>
<td>$7.81</td>
<td>-$0.48</td>
<td>-5.8%</td>
</tr>
<tr>
<td>DDGS Price ($/ton)</td>
<td>$309.55</td>
<td>$328.66</td>
<td>$19.11</td>
<td>6.2%</td>
</tr>
<tr>
<td>Soy Oil Use Biodiesel (Mil lb)</td>
<td>3,375</td>
<td>1,688</td>
<td>-1,688</td>
<td>-50.0%</td>
</tr>
<tr>
<td>Soybean Equiv Biodiesel (Mil bu)</td>
<td>296</td>
<td>148</td>
<td>-148</td>
<td>-50.0%</td>
</tr>
<tr>
<td>Soybean Crush Demand (Mil bu)</td>
<td>1,515</td>
<td>1,375</td>
<td>-140</td>
<td>-9.2%</td>
</tr>
<tr>
<td>Soybean Farm Price ($/bu)</td>
<td>$16.50</td>
<td>$15.55</td>
<td>-$0.96</td>
<td>-5.8%</td>
</tr>
<tr>
<td>Soy Meal Production (Thou tons)</td>
<td>36,004</td>
<td>32,667</td>
<td>-3,337</td>
<td>-9.3%</td>
</tr>
<tr>
<td>Soy Meal Price, 48% Pro ($/ton)</td>
<td>$495.05</td>
<td>$520.79</td>
<td>$25.73</td>
<td>5.2%</td>
</tr>
<tr>
<td>All Hay Price ($/ton)</td>
<td>$206.00</td>
<td>$197.00</td>
<td>$157.00</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Corn Silage ($/ton)</td>
<td>$40.00</td>
<td>$38.00</td>
<td>-$2.00</td>
<td>-5.0%</td>
</tr>
</tbody>
</table>

In the High Scenario, corn feed demand increases 250 million bushels and 50 million more bushels are exported. Ending stocks increase modestly and the average farm price of corn is expected to fall 5.8%, or $0.48 per bushel compared to the Base Case. It is interesting to note that as a consequence of demand shifts (less ethanol, more feed and exports) a larger response to an RFS2 waiver has only a modestly larger impact on corn prices (i.e., corn prices fall only $0.02 per bushel further in the High Scenario versus the Low Scenario). As is the case in the Low Scenario, lower ethanol output reduces production of DDGS by 11.4%, and smaller soybean crush results in an anticipated reduction of 9.3% in soybean meal output. In both cases these reductions are expected to result in higher prices: $19 per ton, or 6.2%, for DDGS and nearly $26 per ton, or 5.2% for high protein soybean meal.
As pointed out above, increases in DDGS and soybean meal prices offset declines in corn and soybean prices, and result in a minimal impact on net feed ration costs. The effects of the changes in feed prices for each scenario described above are illustrated in Tables 3 and 4.

The individual rations for each species and impacts by component and scenario are shown in Appendix Tables 1 and 2. As indicated above, we use industry standard feed rations for each species but include DDGS at near-maximum recommended rates. The use of DDGS has increased sharply in recent years as production and availability grew along with corn ethanol output. Animal feeders use DDGS as a protein and energy supplement for dairy cattle, beef cattle, swine, and poultry rations because it is an economical source of energy compared to feed grains like corn and an economical source of protein compared to soybean meal. Today, more DDGS is fed to livestock, dairy and poultry than soybean meal, indicating the importance of this product to the U.S. feed complex.

DDGS produced from corn typically has a protein content of 25 to 30%. In addition, DDGS has a superior energy value to corn when being feed to beef cattle. DDGS competes with a wide range of other protein and energy feeds including other cereal energy feeds, cereal protein feeds, oilseed meals, and animal protein feeds.

Extension Service specialists recommend that up to 20% of a dairy cow feed ration may consist of DDGS, while most recommendations for beef cattle call for inclusion at the 30-35% level. It should be noted that higher levels of DDGS (e.g., 40-50% of the diet) have been fed to beef cattle when economical. DDGS also are use by swine and poultry feeders, however issues related to fiber content and amino acid levels typically limit feeding rates to a maximum of 20% for swine, 15% for layers, and 6% for broiler chickens.

For this analysis, we incorporated these DDGS feeding rates into typical rations. The feed rations presented are for feeding a steer calf to a finished weight of 1,150 pounds; a hog producer that farrows sows and feeds the pigs to a slaughter weight of 270 pounds; broiler chickens that reach market weight at 8 weeks; replacement pullets for laying flocks at 20 weeks; and daily feed costs for a 1,300 pound dairy cow at mid-lactation.

\[ \text{www.cardnoentrix.com} \]
Impact of Waiving the RFS on Total Net Feed Costs

When the total cost of the rations is examined using the changes in feedstuff prices described above, we find that a moderate reduction in ethanol output resulting from a waiver (such as described in the Low Scenario) would actually increase the net feed costs for dairy cattle by more than 4% (Table 3). Meanwhile, net feed costs for swine, broilers and layers increase less than 1%. The relatively high share of feed costs for feeder cattle accounted for by corn grain is the reason for a slight decrease in net feed costs for beef. The primary cause of these net feed cost increases is the reduced output and higher prices for DDGS and soybean meal resulting from a waiver.

Table 3
Impact of an RFS2 Waiver on Net Life Cycle Feed Ration Costs
Low Scenario: 500 Million Gallon Ethanol Reduction in 2013

<table>
<thead>
<tr>
<th></th>
<th>BASE ($/head)</th>
<th>Low Scenario ($/head)</th>
<th>Diff</th>
<th>% Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle, Finishing Steers</td>
<td>$800.29</td>
<td>$795.20</td>
<td>-$5.09</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Hogs, Farrow-to-Finish</td>
<td>$136.91</td>
<td>$137.57</td>
<td>$0.66</td>
<td>0.5%</td>
</tr>
<tr>
<td>Dairy (Midwest) ($/cow/day)</td>
<td>$7.02</td>
<td>$7.30</td>
<td>$0.29</td>
<td>4.1%</td>
</tr>
<tr>
<td>Broilers</td>
<td>$2.72</td>
<td>$2.73</td>
<td>$0.01</td>
<td>0.2%</td>
</tr>
<tr>
<td>Layers (Replacement Pullets)</td>
<td>$1.21</td>
<td>$1.22</td>
<td>$0.01</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

A larger ethanol output response to a waiver, as described in the High Scenario, does result in net feed cost reductions (albeit slight) for feeder cattle, swine, and broilers, while the increases for dairy and layers are smaller (Table 4).
Impact of Waiving the RFS on Total Net Feed Costs

Table 4
Impact of an RFS2 Waiver on Net Life Cycle Feed Ration Costs
High Scenario: 1,425 Million Gallon Reduction in Ethanol for 2013

<table>
<thead>
<tr>
<th></th>
<th>BASE ($)/head</th>
<th>High Scenario ($)/head</th>
<th>Diff</th>
<th>% Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle, Finishing Steers</td>
<td>$800.29</td>
<td>$793.1</td>
<td>$-7.19</td>
<td>-0.9%</td>
</tr>
<tr>
<td>Hogs, Farrow-to-Finish</td>
<td>$136.91</td>
<td>$136.70</td>
<td>$-0.21</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Dairy (Midwest) ($/cow/day)</td>
<td>$7.02</td>
<td>$7.24</td>
<td>$0.23</td>
<td>3.2%</td>
</tr>
<tr>
<td>Broilers</td>
<td>$2.72</td>
<td>$2.71</td>
<td>$0.01</td>
<td>0.1%</td>
</tr>
<tr>
<td>Layers</td>
<td>$1.213</td>
<td>$1.214</td>
<td>$0.01</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Conclusion

The response of ethanol and biodiesel demand and production to a waiver of RFS2 requirements for 2013 is uncertain. Under a waiver, any reduction in corn use for ethanol and soybeans to produce soybean oil for biodiesel would be expected to slightly increase demand for feed and exports, modestly increase stocks and marginally lower prices, at least in the near term.

While lower corn and soybean prices under a waiver scenario initially appear to be a benefit to beef and dairy cattle, swine and poultry producers, the size of the impact will be limited by increases in the prices of DDGS and soybean meal. Production of these important feed components is directly linked to biofuel production and a waiver will reduce output and increase prices.

A modest response of biofuel production to a waiver is expected to actually increase net feed ration costs for dairy cattle, swine, broiler chicken and layers, while a more aggressive response would provide, at best, a marginal improvement in net feed ration costs for some species.
Impact of Waiving the RFS on Total Net Feed Costs

References


Babcock, Bruce. Preliminary Assessment of the Drought’s Impacts on Crop Prices and Biofuel Production. CARD Policy Brief 12-PB-7, July 2012


Impact of Waiving the RFS on Total Net Feed Costs


Luce, William G. “Formulating Swine Rations”. Oklahoma Cooperative Extension Service ANSI-3501


Impact of Waiving the RFS on Total Net Feed Costs


### Appendix Table 1
Impact of an RFS2 Waiver on Net Life Cycle Feed Ration Costs
Low Scenario: 500 Million Gallon Ethanol Reduction in 2013

<table>
<thead>
<tr>
<th>Feed Ration Component</th>
<th>Beef, Finishing Steers</th>
<th>Hogs, Farrow to Finish</th>
<th>Broiler Chicken</th>
<th>Layers (Replacement Pullets)</th>
<th>Dairy Cattle (Midwest)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(lb/head)</td>
<td>%</td>
<td>$</td>
<td>$</td>
<td>%</td>
</tr>
<tr>
<td>Shelled Corn</td>
<td>2,761</td>
<td>48.8%</td>
<td>$408.43</td>
<td>$385.92</td>
<td>-5.5%</td>
</tr>
<tr>
<td>DDGS</td>
<td>2,050</td>
<td>36.2%</td>
<td>$317.29</td>
<td>$337.97</td>
<td>6.5%</td>
</tr>
<tr>
<td>Alfalfa Hay</td>
<td>724</td>
<td>12.8%</td>
<td>$74.57</td>
<td>$71.31</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Minerals/Supplements</td>
<td>128</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5,663</td>
<td>100.0%</td>
<td>$800.29</td>
<td>$795.20</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feed Ration Component</th>
<th>Beef, Finishing Steers</th>
<th>Hogs, Farrow to Finish</th>
<th>Broiler Chicken</th>
<th>Layers (Replacement Pullets)</th>
<th>Dairy Cattle (Midwest)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(lb/head)</td>
<td>%</td>
<td>$</td>
<td>$</td>
<td>%</td>
</tr>
<tr>
<td>Corn</td>
<td>9.8</td>
<td>64.0%</td>
<td>$1.45</td>
<td>$1.37</td>
<td>-5.5%</td>
</tr>
<tr>
<td>DDGS</td>
<td>1.0</td>
<td>6.4%</td>
<td>$0.15</td>
<td>$0.16</td>
<td>6.5%</td>
</tr>
<tr>
<td>Soybean Meal</td>
<td>4.5</td>
<td>29.6%</td>
<td>$1.12</td>
<td>$1.20</td>
<td>6.7%</td>
</tr>
<tr>
<td>Other</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Total</td>
<td>15.3</td>
<td>100.0%</td>
<td>$2.72</td>
<td>$2.73</td>
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<table>
<thead>
<tr>
<th>Feed Ration Component</th>
<th>Dairy Cattle (Midwest)</th>
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<tbody>
<tr>
<td></td>
<td>lb./cow/day</td>
</tr>
<tr>
<td>DDGS</td>
<td>10.3</td>
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<tr>
<td>Soybean Meal</td>
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<tr>
<td>Corn Silage</td>
<td>12.9</td>
</tr>
<tr>
<td>Alfalfa Hay</td>
<td>12.9</td>
</tr>
<tr>
<td>Total (DMI)</td>
<td>51.6</td>
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</table>
## Appendix 2

### Impact of an RFS2 Waiver on Net Life Cycle Feed Ration Costs

**High Scenario:** 1,425 Million Gallon Ethanol Reduction in 2013

<table>
<thead>
<tr>
<th>Feed Ration Component</th>
<th>(lb/head)</th>
<th>%</th>
<th>$</th>
<th>$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beef, Finishing Steers</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Shelled Corn</td>
<td>2,761</td>
<td>48.8%</td>
<td>$408.43</td>
<td>$384.91</td>
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<tr>
<td>DDGS</td>
<td>2,050</td>
<td>36.2%</td>
<td>$317.29</td>
<td>$336.88</td>
<td>6.2%</td>
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<td>Alfalfa Hay</td>
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<td>12.8%</td>
<td>$74.57</td>
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<td>Minerals/Supplements</td>
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<tr>
<td>Total</td>
<td>5,663</td>
<td>100.0%</td>
<td>$800.29</td>
<td>$793.10</td>
<td>-0.9%</td>
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</tbody>
</table>

| **Hogs, Farrow to Finish** |          |     |      |      |     |
| Corn                   | 467.5     | 58.2% | $69.16  | $65.17  | -5.8% |
| DDGS                   | 164.5     | 20.5% | $25.46  | $27.04  | 6.2% |
| Soybean Meal           | 170.9     | 21.3% | $42.29  | $44.49  | 5.2% |
| Total                  | 802.9     | 100.0% | $136.91 | $136.70 | -0.2% |

| **Broiler Chicken** |          |     |      |      |     |
| Corn                 | 9.8       | 64.0% | $1.45   | $1.37   | -5.8% |
| DDGS                 | 1.0       | 6.4%  | $0.15   | $0.16   | 6.2% |
| Soybean Meal         | 4.5       | 29.6% | $1.12   | $1.18   | 5.2% |
| Total                | 15.3      | 100.0% | $2.72   | $2.71   | -0.6% |

| **Layers (Replacement Pullets)** |          |     |      |      |     |
| Corn                    | 4.0       | 48.1% | $0.584  | $0.551  | -5.8% |
| DDGS                   | 1.2       | 15.0% | $0.190  | $0.202  | 6.2% |
| Soybean Meal           | 1.8       | 21.6% | $0.438  | $0.461  | 5.2% |
| Other                  | 1.3       | 0.0%  | $0.000  | $0.000  | 0.0% |
| Total                  | 8.3       | 100.0% | $1.213  | $1.214  | 0.1% |

<table>
<thead>
<tr>
<th><strong>Dairy Cattle (Midwest)</strong></th>
<th>lb./cow/day</th>
<th>%</th>
<th>$/cow/day</th>
<th>$/cow/day</th>
<th>%</th>
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<td>DDGS</td>
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<td>$1.60</td>
<td>$1.70</td>
<td>6.2%</td>
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<td>Soybean Meal</td>
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<td>Corn Silage</td>
<td>12.9</td>
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<td>$0.26</td>
<td>$0.24</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Alfalfa Hay</td>
<td>12.9</td>
<td>25.0%</td>
<td>$1.33</td>
<td>$1.27</td>
<td>-4.4%</td>
</tr>
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<td>Total (DMI)</td>
<td>51.6</td>
<td>100.0%</td>
<td>$7.02</td>
<td>$7.24</td>
<td>3.2%</td>
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</table>
Attachment 2:

Response to Letter from National Pork Producers Council et al. to EPA Administrator Lisa Jackson (July 30, 2012)
On July 30, 2012, a group of livestock and poultry organizations submitted a letter ("livestock letter") to EPA Administrator Lisa Jackson asking her to initiate a one-year waiver of the requirements of the Renewable Fuel Standard (RFS).

1 The letter asserts that implementation of the RFS is causing severe economic harm to the livestock and poultry industries and claims a waiver would somehow reduce or alleviate the alleged harms. As outlined below, EPA should reject the groups' call for a waiver and disregard the letter’s incomplete and misleading "harm analysis" for at least three reasons. First, the livestock letter is not a legally recognizable petition under Clean Air Act Section 211(o)(7) because livestock and poultry organizations are not states or obligated parties. Second, the livestock letter fails to meet the evidentiary requirements for a petition outlined in EPA guidance. Third, the livestock letter does not demonstrate that severe economic harm is being caused by the RFS. Thus, the livestock letter does not cure the deficiencies in the state petitions identified by RFA in the main body of our comments. Accordingly, the livestock letter should be treated no differently than any other comment letter from the public. We further note that the livestock letter should be given little weight by EPA. Instead of providing EPA and stakeholders with useful information, the livestock letter is defined by repeated inaccuracies, dubious analysis, and misinformation.

I. According to Clean Air Act Section 211(o)(7)(A), the livestock and poultry groups are not qualified to request a waiver of the RFS. Thus, EPA cannot treat the letter as a waiver request and should not give the letter more weight than any other public comment.

CAA Section 211(o)(7) unambiguously states that EPA may waive the RFS requirements “on petition by one or more States, by any person subject to the requirements of this subsection, or by the Administrator on his own motion...” Obviously, livestock and poultry trade groups are not States (or Governors of States), nor are they subject to the regulatory requirements of the RFS. Thus, Congress did not grant livestock and poultry trade groups the right to file a petition. EPA recognized as much in its guidance on future petitions that accompanied the 2008 denial of the Texas waiver petition. There, EPA noted that only state governors and parties subject to the RFS, such as refiners and importers of gasoline (as well as renewable fuel producers themselves), are permitted to request a waiver.2 Livestock and poultry trade groups may not circumvent these clear statutory eligibility criteria by styling their submission as a petition for EPA to exercise its Congressionally-granted authority to grant a waiver on its own motion. That authority is EPA’s alone, and a party may not petition EPA to exercise it. If that were the case, the rest of the statutory provision granting the right to petition EPA would be entirely superfluous, as any party could simply petition EPA to exercise its own authority. As EPA is aware, it is a fundamental canon of statutory construction to read a statute to give meaning to all provisions. Thus, EPA acted appropriately by not treating the livestock letter as a petition of any kind. EPA is not required to respond at all, much less within the 90 days required by the statute.

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1 The livestock letter is available at EPA-HQ-OAR-2012-0632-0012
Nevertheless, we are concerned that EPA implicitly invited comment on the livestock letter by specifically referencing it in the notice requesting public comments on the waiver requests from North Carolina and Arkansas. Further, we note with concern that the livestock letter is characterized as “supporting and related material” on the docket, rather than as a “public submission.” To the extent EPA has requested comment on the livestock letter, such a request is inappropriate and stakeholders should not be forced to expend resources to respond to unsupported assertions in the submission. As EPA weighs the evidence and considers submissions from the public, the livestock letter should be given no more weight or credence than any other public comment received during the 45-day comment period. Accordingly, EPA should not acknowledge the livestock letter as anything more than comments and should formerly deny the “petition” in order to discourage future submissions from ineligible parties that waste agency and stakeholder resources.

II. The livestock letter does not cure deficiencies in the state waiver requests. Like the state waiver requests, the livestock letter fails to show that current conditions meet the requirements of the CAA and EPA’s Guidance on Future Requests for Waivers

Congress enacted a narrowly crafted waiver provision—with a high burden of proof—because it wanted to ensure that the goals of the EPAct and EISA would be met in all but the most extreme circumstances. To obtain a waiver, a petitioner with standing must show that there is severe harm to the economy of a State, a region, or the United States; that the harm is being directly caused by implementation of the RFS; and that reducing the RFS as requested in the waiver would redress the claimed harm. Not only do the livestock groups lack the standing necessary to submit a petition, but they also entirely fail to make any of these required showings. Like state petitioners, livestock and poultry groups have similarly neglected to follow EPA’s clear guidance on the type of information that should accompany a waiver request. In clear contravention of EPA’s 2008 guidance, livestock and poultry groups have entirely failed to provide a “comprehensive and robust analytical basis” for their claims that the RFS is causing severe economic harm, nor have they attempted to meaningfully characterize the nature and degree of the harm. The letter completely fails to provide any quantitative analysis estimating the economy-wide impacts of the drought, or of the RFS itself. It is unthinkable that the livestock groups could ask EPA to waive the program without providing such analysis to support their claim of severe economic harm. Thus, EPA should not only treat the livestock letter as being from an improper party, but it should also not consider the submission to cure the obvious deficiencies in the state petitions, as the livestock letter itself does not provide an adequate analytical basis for its claims. As outlined below, the livestock letter is legally and factually flawed for numerous reasons.

A. The livestock letter fails to demonstrate that the RFS is the cause of a “severe harm” to the economy of a State, a region, or the United States.

Not only does the livestock letter fail to establish that current economic conditions rise to the level of “severe harm” to the economy, but it also fails to show that the RFS is the cause of the claimed harm. While the letter tenuously attempts to tie the RFS to the higher feed costs currently facing the livestock and poultry industries, it does not establish any causal link whatsoever. Rather, the letter acknowledges that drought conditions in the summer of 2012—not the RFS—are the root cause of current higher feed costs.

In fact, a substantial portion of the letter is dedicated to qualitatively describing the effects of the drought. The letter even refers to “drought-induced harm” to livestock and poultry feeders, and suggests that “drought conditions are creating a dire condition for...users of corn (emphasis added).” Further, the letter suggests livestock and poultry feeders are being “adversely affected by the current drought,” and states that the drought’s “predicted devastating impact on corn yields and resulting high prices for feed pose a severe threat to livestock and poultry producers.” Given the letter’s repeated linkages of the drought to higher feed costs, it is clear the livestock groups understand that the root cause of the current economic conditions facing their industry is the drought itself and not the RFS.

Moreover, the livestock groups have obviously misinterpreted the statutory requirement that harm must be present across the entire economy of a state, a region, or the United States. Using convoluted arguments and tortured logic, the livestock groups essentially attempt to redefine “the economy.” They argue that the terms can somehow be read to apply only to one industry in one narrow sector representing one small fraction of national gross domestic product (i.e., the 2011 value of livestock production was equivalent to 0.47 percent of U.S. GDP). The livestock groups ask EPA to blatantly ignore its obligation to consider the impacts of the RFS program across all sectors of the economy, and focus instead only on the alleged impacts to one industry representing less than one-half of 1 percent of the U.S. economy.

The livestock groups claim that EPA does not have statutory authority to consider benefits to the economy and must only consider harm to individual sectors of the economy because “211(o) speaks only to the harm experienced, not financial benefits that may occur through the production and sale of ethanol or otherwise.” This construction of the statute is incorrect. EPA’s consideration of benefits is derived not from its interpretation of the term “harm,” but rather from its interpretation of the term “economy,” which unquestionably requires a

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5 Further, to the extent that the livestock letter alleges grain prices have been impacted by forces other than the drought, livestock groups again miss the mark in repeatedly conflating natural ethanol demand with the RFS. For example, the livestock letter cites a Congressional Budget Office study on the impact of the use of ethanol on the price of corn, not the impact of the RFS. The relevant inquiry is not whether ethanol use impacts grain prices, but rather whether the RFS is the cause of the ethanol use. The available evidence clearly demonstrates it is not.

6 U.S. agricultural output represented 1.2 percent of national GDP in 2011 (CIA World Factbook). According to USDA, the value of livestock production was $164.6 billion in 2011, or 39 percent of the total value of agricultural sector production ($418.1 billion). Thus, the value of livestock production accounted for 0.47 percent of U.S. GDP (.012 x .39 = .0047).

7 See Livestock Letter at 14.
consideration of both costs and benefits to determine if the net impact will harm the economy.\(^8\) Indeed, in similar circumstances, the D.C. Circuit has held that EPA is compelled to consider both beneficial and harmful public health effects of a criteria pollutant in determining National Ambient Air Quality Standards.\(^9\) There, the court noted that “it seems bizarre that a statute intended to improve human health would....lock the Agency into looking at only one half of a substance’s health effects...”\(^10\) Similarly, it would be bizarre for a provision intended to prevent severe harm to the economy to lock EPA into looking at only negative impacts, when the net impact on the economy may be beneficial. Thus, EPA appropriately interpreted the term “economy” to allow for consideration of benefits in its 2008 denial of the Texas waiver petition. Indeed, D.C. Circuit precedent indicates that EPA is compelled to do so here as well.

The livestock letter also attempts to redefine the term “region” by suggesting it can be read to apply to a small area occupied by livestock and poultry operations within a state. The letter states that the term “region” is “not constrained to any geographic area, nor is it required to be of any geographic size.”\(^11\) Further, NPCC argues, the term “region” is “most naturally read to mean that a region be defined as to where the harm occurs.”\(^12\) However, the same source cited by the livestock groups defines “region” as “a broad geographic area” or “a major world area.”\(^13\) Other sources define a “region” as “an area, especially part of a country or the world...”\(^14\) (i.e., not part of a state).

Far from a natural reading, the interpretation urged by livestock groups would contravene Congressional intent by encompassing isolated and localized impacts. Further, inclusion of the term “region” after “state” but before the “United States” evinces a Congressional intent to consider impacts in ascending order from the state to the national level, with “region” naturally read as an area larger than a state but smaller than the United States.\(^15\) That Congress clearly intended region to apply to areas larger than a state is clear from Congress’s repeated use of the term region to define areas larger than a state throughout the CAA (e.g. the Regional Haze Program). EPA itself has established 10 administrative “regions” across the United States, each encompassing multiple states.\(^16\) Thus, a state is the smallest geographic area for which EPA may consider whether the RFS has caused severe economic harm. Mere local impacts are not sufficient to meet the statutory requirement of economic harm to the economy of a State.

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\(^8\) “economy” is at least ambiguous under Chevron, and EPA’s interpretation of the term as requiring consideration of both benefit and harm is inherently reasonable under Chevron Step 2.

\(^9\) ATA v. EPA, 175 F. 3d 1027 (D.C. Cir. 1999).

\(^10\) Id. at 1052.


\(^12\) Id.


\(^14\) See http://oxforddictionaries.com/definition/english/region.

\(^15\) The Section 211(o)(8) waiver provisions for the initial year of the program have a similar progression, although there geographic areas are enumerated in descending order of size (“...on a national, regional, or state basis”). That region refers to an area larger than a state is further confirmed by Congress’s reference to a “state or region of the Nation” in a separate fuel waiver provision that was also enacted in EPAct 2005. See 211(c)(ii)(l). 42 U.S.C. 7545(c)(ii)(l).

\(^16\) See http://www.epa.gov/tp/whereyoulive/regions.htm.
Finally, livestock groups argue that EPA’s threshold for severe harm is so high that it is “unattainable” and that “Congress does not act to create a nullity.”\textsuperscript{17} EPA considered and rejected this precise argument in the 2008 Texas Waiver application. There, Texas alleged the “impossibility” of showing that the RFS itself was the direct cause of severe economic harm, and not merely a significant contributor. EPA rejected this argument, noting that the plain language of the CAA required that the RFS itself must be the direct cause of the severe harm and that Texas merely asserted the conclusion of impossibility without even attempting to show it to be the case.\textsuperscript{18} Like Texas, livestock groups do not even attempt to support their assertion that the waiver provision is unattainable.

\textbf{B. The livestock groups rely on misinterpreted results from obsolete and inaccessible studies to argue that the RFS is causing current higher corn prices.}

The livestock letter’s characterization of economic modeling studies conducted by Prof. Bruce Babcock and others at Iowa State University is misleading and erroneous. The primary Iowa State analysis cited in the livestock letter estimated that waiving the RFS in 2011 might have reduced corn prices by \$0.57 per bushel that year.\textsuperscript{19} The study further found waiving the RFS in 2014 might reduce corn prices \$0.34 per bushel. These results are either misunderstood by the livestock groups, or purposely mischaracterized. The livestock letter claims the Iowa State study found corn prices would have been \$1.48 per bushel lower with an RFS waiver in 2011, yet that figure does not appear anywhere in the study. The livestock groups apparently extrapolated or modified the results from the Iowa State study; however, no explanation is given as to how the \$1.48 per bushel figure was derived.

The groups do, however, suggest that the \$1.48 per bushel figure applies only “…if all other federal policies affecting ethanol in 2011 had remained the same…” This is an absurd caveat for two reasons. First, two of three major ethanol policies that existed in 2011—the volumetric ethanol excise tax credit (VEETC) and secondary tariff on imported ethanol—expired at the end of 2011 and no longer exist. Second, the task at hand for EPA is to examine only the economic impacts of the RFS, not the impacts of the now-defunct VEETC and import tariff.

In any case, the 2010 Iowa State analysis is irrelevant to the current waiver requests. First, the study included the estimated impacts on corn prices of \textit{all} the ethanol policies that existed at the time. As stated above, two of three major ethanol policies analyzed by the 2010 study—VEETC and secondary tariff on imported ethanol—have expired and no longer exist. Second, the 2010 study did not properly account for the economic impacts of surplus RIN credits. On the subject of surplus RINs, Babcock recently wrote, “…allowing obligated parties to carry over blending credits (RINs) from previous years significantly lowers the economic impacts of a short crop,\textsuperscript{19}

\textsuperscript{17} See Livestock Letter at 15
\textsuperscript{18} 73 Fed Reg. 47168, 47171 (August 13, 2008)
\textsuperscript{19} Babcock, B., Barr, K., and Carriquiry, M., Center for Rural and Agricultural Development (July 2010). \textit{Costs and Benefits to Taxpayers, Consumers and Producers from U.S. Ethanol Policies}. 10-SR 106.

Note: The \$0.57 per bushel (2011) and \$0.34 per bushel (2014) figures represent the difference between the “mandate only” and “no programs” scenarios.
because it introduces flexibility into the mandate [emphasis added].” The 2010 Iowa State study also made questionable assumptions about the elasticity of ethanol demand in the absence of the RFS. Third, and most important, the authors of the 2010 study have conducted new modeling analyses that are far more relevant to, and reflective of, the current situation. In other words, the 2010 study is obsolete and has been superseded by newer analyses by the same authors. Further, the “follow-on ISU analysis for 2015-2020” cited by the livestock groups is evidently not available in the public domain and thus cannot be evaluated.

The livestock letter also makes reference to a 2011 analysis conducted by Babcock for the International Centre for Trade and Sustainable Development (ICTSD).20 The ICTSD study is characterized by the livestock groups as supporting the notion that the impacts of the RFS on corn price are greatest when corn yields are low. Again, the ICTSD study overlooked the ability of surplus RINs to mitigate the economic impacts of a short crop. Further, the ICTSD study found the RFS and other ethanol policies had only “…quite modest impacts on crop prices…” and “…have not been the major driver of higher commodity prices.” In fact, the analysis showed that corn prices wouldn’t have been any different at all in 2009/10 had the RFS and all other ethanol policies not existed. For 2008/09, the study found corn prices might have been just 4.5 percent lower without all ethanol policies.

The livestock groups have badly mischaracterized the results of the studies cited in their letter. They offer no explanation whatsoever of how they derived the $1.48 per bushel figure from the 2010 Iowa State study. Moreover, the 2010 study is irrelevant in light of important policy changes since occurring since the study’s publication, improved understanding of the economic impact of RINs, and the availability of newer analyses by the same authors. The livestock groups also cite research that is apparently not available to the public. Finally, the groups selectively cite from the ICTSD study and omit the study’s overall conclusion that the RFS has had only negligible impacts on corn prices in recent years. For these reasons, EPA should disregard the livestock letter’s suggestion that the cited economic analyses support their claim of harm.

C. The livestock letter fails to show how waiving the RFS would alleviate the claimed harms.

Like North Carolina and Arkansas, the livestock letter fails to show that waiving the RFS would have any meaningful impact on corn prices or alleviate the claimed economic harms. The livestock groups demonstrate a fundamental misunderstanding about the value of ethanol to refiners and the drivers of ethanol demand. They simply assume that a waiver of the RFS would automatically lead to reduced corn use by the ethanol industry, and thus, greater corn availability and lower prices. A series of recent analyses by independent economists shows why this is a faulty assumption.

20 Babcock, B., for ICTSD (June 2011). The Impact of US Biofuel Policies on Agricultural Price Levels and Volatility. Issue Paper No. 35. Note: ICTSD is a Geneva-based non-governmental organization that has been financially supported by OXFAM, the World Health Organization, United Nations, the National Wildlife Federation, and other groups.
Recent studies by university economists—including work cited in the livestock letter—suggest corn prices might be reduced by just 0.5 to 7.4 percent if the RFS was waived for 2013 (see discussion in Section VI(C) of RFA’s comments). As indicated by Babcock, “The desire by livestock groups to see additional flexibility [i.e., a waiver] on ethanol mandates may not result in as large a drop in feed costs as they hope.”

III. The livestock letter suffers from numerous other inconsistencies and inaccuracies.

In addition to the errors and misinformation discussed above, the livestock letter contains several other inconsistencies and inaccuracies that render the document insufficient. Some of the most egregious flaws are addressed below.

- The groups mistakenly suggest that the RFS has “mandated utilization of corn for renewable fuels.” Similarly, they claim the RFS imposes “[r]equirements for ethanol derived from corn starch…” These statements reveal a basic misunderstanding of the RFS program’s requirements. The RFS does not dictate the use of any particular feedstock or biofuel. There is absolutely no “mandate” to use corn to produce renewable fuel in the RFS or elsewhere. Rather, the RFS program requires only that feedstocks meet the statutory definition of “renewable biomass” and that renewable fuels reduce lifecycle greenhouse gas emissions by at least 20 percent compared to petroleum. The structure of the RFS allows the nested volumetric requirements to be satisfied using the renewable fuels that are most economical.

- The letter states, “Demand for corn to meet the RFS continues to grow as the RFS grows.” This statement ignores the fact that corn use for ethanol has actually fallen in two consecutive years. USDA projects that corn use for ethanol in 2012/13 will be 10 percent below 2011/12 levels and 10.4 percent below 2010/11 levels. Meanwhile, corn use for livestock feed is projected to be just 5.7 percent lower in 2012/13. Clearly, the ethanol industry is sharing in corn demand rationing and is reducing its use of corn, irrespective of increasing RFS requirements.

- The livestock letter contorts the facts by stating, “In the past two years, more corn has been devoted to ethanol production than used for feed grain.” This statement blatantly ignores the fact that one-third of every bushel processed for ethanol returns to the livestock feed market in the form of distillers grains or corn gluten. Thus, when examined correctly, livestock feed remains the top use of corn. The ethanol industry is projected to use approximately 88 million tons of corn on a net basis in 2012/13, while the livestock industry will consume 154 million tons of corn and corn-based animal feed co-products from the ethanol industry.

- The livestock groups are apparently requesting that a waiver of the RFS apply retrospectively to a one-year period that has already past. The letter states, “EPA Should
Grant a Waiver for 2011/2012," presumably referring to the 2011/12 USDA marketing year for corn. But the 2011/12 marketing year—which began on Sep. 1, 2011 and ended on Aug. 31, 2012—is already over. Obligated parties under the RFS have already complied with their 2011 renewable volume obligations, and the 2012 compliance year is nearing its end. Thus, it is exceptionally unclear how a one-year waiver could or would be applied to the 2011/12 corn marketing year.

IV. Conclusion: EPA should reject the claims made in the livestock letter and treat the letter no different than any other public submission.

Because the livestock groups are neither obligated parties nor State Governors, their plea for a waiver cannot be treated as an official request. Further, even if the livestock groups had standing to submit a waiver petition (which they do not), they have wholly failed to establish that the statutory requirements for a waiver have been satisfied. Thus, the livestock letter does not cure the obvious deficiencies in the state petitions and should be considered no differently than other public submissions. As this response has shown, the livestock letter is riddled with inaccuracies, dubious analysis and misinformation. Therefore, EPA must reject the claims made in the livestock letter.
Attachment 3:

Letter from Biofuels Producers Coordinating Council to President Barack Obama (August 27, 2012)
The President  
The White House  
1600 Pennsylvania Ave.  
Washington, DC 20500  

August 27, 2012  

Dear Mr. President,  

The drought impacting the United States has already caused millions of dollars in economic damages to rural America. By all accounts, the drought of 2012 has been historic: more than one-fifth of the continental United States is in an extreme or exceptional drought. As you know, this is a very difficult situation for ranchers and farmers, and lower than expected grain yields could ultimately result in higher grain prices.

We understand that the Administration will be reviewing a range of options for providing relief to those impacted by the drought. With this deliberation in mind, we are writing to caution against granting a waiver for the federal Renewable Fuel Standard (RFS). A number of groups and some governors seem to believe that the RFS is a substantial part of the equation when it comes to grain prices, and waiving the program this year or next will ease the impact of the drought on consumers. There is substantial evidence to the contrary.

1. **Waiving the RFS will have a minimal impact on grain prices.** Those supporting an RFS waiver allege that the RFS is a rigid mandate, and waiving the standard will therefore provide immediate relief. This is not the case. There are provisions built into the RFS that are already providing relief in the marketplace. As discussed in a recent study published by Purdue University, the RFS allows refiners to meet as much as 20 percent of their obligation with credits accumulated in previous years (i.e. without purchasing wet gallons of ethanol). Right now, there are more than 2 billion excess credits (provided on a per gallon basis) available in the marketplace, which in essence allows refiners to comply with the RFS without putting pressure
on this year's grain crops or ethanol stocks. This "roll over" allowance is an important consideration for two reasons: (1) it already provides the year-to-year relief sought by waiver proponents; and, (2) its existence means that any additional waiver would have only a marginal effect on the marketplace. This is one of the primary reasons that the Purdue researchers found that granting a waiver would only reduce corn prices by an estimated 5.6 percent in 2013. It is also important to note that refiners cannot immediately stop or even reduce their use of ethanol. Ethanol is critical for octane levels and Clean Air Act (CAA) compliance. It is highly misleading for proponents of an RFS waiver to suggest that such action will significantly change refiner behavior, and thus reduce corn prices, in the near term. The outcome they are seeking is the weakening of the domestic biofuels industry over the long term, which has nothing to do with the drought and will have much broader negative effects discussed below.

2. **Weakening the U.S. commitment to renewable fuels will increase gas prices.** Any consideration of reducing ethanol use in gasoline (to theoretically reduce grain prices) must be taken in consideration with the counterbalancing effect of increasing gas prices. According to a recent analysis by economists at the University of Wisconsin and Iowa State University, ethanol consumption reduced wholesale gasoline prices by $1.09 per gallon in 2011. According to the study, growth in ethanol production reduced wholesale gasoline prices by an average of $0.29 per gallon between January 2000 and December 2011. Thus, ethanol reduced the average American household's spending on gasoline by more than $1,200 last year. Several groups have tried to challenge the notion that the RFS has reduced gas prices, but it is hard to escape the reality that ethanol has enlarged gasoline supplies by 10 percent and has been, on average, $0.70 per gallon cheaper than gasoline in 2012. The impact of the RFS on gas prices is critical not just because of the direct consumer benefits of lower pump prices, but also because higher fuel prices are a primary cause of higher grain prices. As such, suspending the RFS will result in a number of counterbalancing outcomes that could actually worsen the consumer impacts of the 2012 drought.

3. **Altering or waiving the RFS will chill investment in advanced biofuels.** Since Congress created the RFS in 2005, advanced biofuel companies have produced more than 4.1 billion gallons of advanced biofuels during very difficult financial times. The advanced biofuels industry continues to construct biorefineries in nearly every state across the country, producing competitively priced fuels from an increasingly diverse mix of feedstocks, including recycled cooking and algal oil, cellulosic materials, agricultural oils, municipal and agricultural waste, and animal fats. Yet, the biofuels industry continues to be reliant on the RFS and the demand predictability it provides because the transportation fuel marketplace is distorted by OPEC and generally lacks the free market principles that would otherwise reward lower cost, more innovative products. Without a forcing mechanism to correct this dynamic, the risk/uncertainty metrics for most investors in the advanced biofuels space will be very high, and the development of these fuels will stall. The last thing the advanced biofuels industry needs is alterations to the RFS - especially those based on specious arguments - that will effectively erode investor confidence in the
program and increase the policy and market uncertainty that is already pervasive in the liquid transportation fuel marketplace.

4. **Waiving the RFS will destabilize a cornerstone of the U.S. economic recovery.** During challenging economic times, and in contrast to national trends in the manufacturing and oil refining sector, the U.S. biofuel industry has grown to employ almost 500,000 Americans and generate $53 billion in economic activity each year. With the continued development of advanced biofuels, the industry could add as many as 800,000 new employment opportunities, grow annual economic activity by an additional $37 billion, and further reduce U.S. dependence on foreign oil. America's Renewable Fuel Standard (RFS) has provided and continues to provide the foundation necessary to drive private investment in the domestic bio-based economy.

With so many Americans in distress from the 2012 drought, it may be difficult to accept that the flexibility provisions built into the RFS and the market itself are working to minimize the consumer impact of lower grain yields. But that is exactly what is happening. While refiners look to ample RFS credits and ethanol stocks to comply with the program, some ethanol facilities have cut production or temporarily shut down. The Energy Information Administration (EIA) recently noted that ethanol production has decreased since corn prices began to escalate in early June. The recent four-week average for ethanol production is the lowest in more than two years and down more than 15 percent from the beginning of this year. This fact is often ignored by the media or by opponents of biofuels.

The undersigned organizations very much appreciate your ongoing support for the U.S. biofuel industry. The development of our sector came as a result of the RFS, and proves out the theory that with the right market signals, the United States will emerge as the worldwide leader in the development of alternative fuels. Recent calls to suspend the RFS, while sometimes well-intended, are misguided and may actually worsen the consumer impacts of the drought. For this reason, we urge you to stay the course on the RFS, which is the cornerstone of our efforts to reduce foreign oil dependence and create jobs and economic growth across America.

Sincerely,

Biofuels Producers Coordinating Council

[Signature]

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Advanced Biofuels Association

[Signature]

Brooke Coleman
Advanced Ethanol Council
Mary Rosenthal
Algae Biomass Organization

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