



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
ENFORCEMENT AND  
COMPLIANCE ASSURANCE

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Matthew T. Ponish  
National Environmental Compliance Manager  
USDA/FSA/CEPD  
1400 Independence Ave., SW  
Mail Stop 0513  
Washington, D.C. 20250

Dear Mr. Ponish:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Department of Agriculture, Farm Service Agency's final programmatic environmental impact statement (EIS) for the Biomass Crop Assistance Program.

The U.S. Department of Agriculture's Commodity Credit Corporation (CCC) proposes to implement, via the Farm Service Agency (FSA), the Biomass Crop Assistance Program (BCAP) enacted by Title IX of the Food, Conservation, and Energy Act of 2008 (2008 Farm Bill). BCAP, authorized through September 30, 2013 is intended to assist agricultural and forest land owners in producing dedicated energy crops for energy production. BCAP will provide financial assistance to producers of eligible crops grown in an approved BCAP project area. These crops will be collected, harvested, stored and transported for conversion to bioenergy at Biomass Conversion Facilities (BCFs). The final programmatic EIS analyzes the potential environmental impacts of implementing BCAP on a national scale. Three alternatives were examined: Alternative (1) addresses a targeted implementation of the BCAP to specific areas or regions of the U.S; Alternative (2) addresses a broad national implementation of BCAP; and Alternative (3), a No Action alternative, addresses the potential effects of not implementing BCAP and provides an environmental baseline. The final programmatic EIS identifies Alternative 1 as the preferred alternative.

EPA reviewed the draft programmatic EIS and provided comments in our September 21, 2009 letter. We believe that the final programmatic EIS adequately responded to most of these issues. In our review of the final programmatic EIS, we identified two additional broad issues where discussion could have been improved. The first issue is that the characterization of indirect impacts and Greenhouse Gas (GHG) emissions associated with biofuel production may not be consistent with analysis done by

EPA for the Renewable Fuels Standard program. The second issue is that the economic modeling approach taken and some of the assumptions used may not provide the most accurate and complete picture of the regulation. Comments specific to these issues and others are enclosed for your consideration as you prepare the Record of Decision.

While the review has not identified any potential environmental impacts requiring substantive changes, we did identify some additional opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.

We appreciate the opportunity to review the final programmatic EIS. If you have any questions, please contact me at (202) 564-5400 or Arthur Totten, the staff contact for this project at (202) 564-7164.

Sincerely,



Susan E. Bromm

Director

Office of Federal Activities

Enclosure

**U.S. Environmental Protection Agency  
Detailed Comments – Biomass Crop Assistance Program Final EIS**

**Direct and Indirect Impacts Sections 4.4.3 – 4.4.4**

The following terms should have been used in the EIS analysis. These terms are consistent with other U.S. reports, studies, legislation, rules and usage.

- U.S. legislation, Energy Independence and Security Act of 2007(EISA) and regulation, Renewable Fuels Standard (RFS) have laid down precedent in use of the terms “direct effects” and “indirect effects” with regard to lifecycle analysis of greenhouse gas emissions for biofuels. EPA’s concern is that the way these two terms are used in the EIS is inconsistent with precedent in U.S. legislation, regulation and typical usage in the field of lifecycle analysis.
- Sections 4.4.3 - 4.4.4 refer to the “concept of indirect” as “offsite activities” that contribute to biofuel production (*e.g.* pesticide production or electricity generation for irrigation). In RFS and in the science of lifecycle analysis, such “offsite activities” are typically considered “direct impacts” (or “indirect effects”) as they directly contribute to the production of the biofuel – *i.e.*, in this analysis, the “system boundaries” includes in its direct impacts such offsite activities. “Indirect impacts” are typically considered those secondary impacts mediated by the impact of the biofuel production/use on existing markets (*e.g.*, land use change impacts).
- Sections 4.4.3.2 and 4.4.4.2 titled “Indirect Impacts” discuss impacts on quality (*i.e.*, non-GHG pollutants). These are more appropriately referred to as “direct impacts” on air quality. The section would have been more appropriately titled “Non-GHG Air Quality Impacts.”
- Considering that the POLYSYS model estimates large commodity price changes of up to 15-20% under alternative 2, indirect impacts on land outside of BCAP project areas where shifts in cropping practices may occur as a result of the BCAP program could be significant and thus could have warranted discussion in the EIS.
- It would also have been helpful to report in Chapter 4 or 5, changes in imports/exports by commodity under alternative 2 if they were available from the POLYSYS analysis. These results would have provided a good indicator of the potential for international impacts on GHG emissions and biodiversity caused by the commodity price increases resulting from BCAP.

#### **Other Related Actions, Federal Permits, and Licenses: Section 1.3.4**

The EIS would have benefited from an expanded discussion of the RFS2 program and how it is expected to interact with BCAP. Section 1.3.4 of the EIS discusses other related Federal actions and highlights several programs authorized by the Farm Bill but makes no mention of RFS2. It would have been helpful to provide some specifics on the program, such as how the four categories of eligible renewable biomass are defined. It would also have been helpful to discuss which types of BCAP payments and feed-stocks could directly support the RFS2 program goals and which could not.

#### **Methodology for Greenhouse Gas (GHG) Analysis: Section 4.4.2**

The methodology description for the EIS analysis of potential GHG emissions impacts of BCAP may not provide sufficient information on analysis approach, modeling framework and tools, assumptions, and emission factors for readers to understand the reported results. It would have been helpful if the methodology description provided the following information:

- Modeling system and/or tools used to construct Net Ecosystem Carbon Budgets (NECB).
- Assumptions applied in constructing NECBs (for both the baseline and alternative use scenarios) and in comparing NECBs. (e.g., crop yields, fertilizer inputs)
- Description of the system boundaries for the analysis. The description should include clarification that downstream emissions (e.g., fuel processing and combustion) are not included.
- The time frame for the analysis (i.e., near term, longer term?)
- Whether emission impacts reported are annual or cumulative over time.

#### **Non-GHG Pollutants: Section 4.4.3.2 and 4.4.4.2**

The EIS did not fully analyze the potential impacts of the BCAP program on air quality due to non-GHG emissions.

The EIS reports that because the same machinery is used for feedstock production for biofuels as is used for other farming practices, implementation of the BCAP program would result in no change to non-GHG related air quality. This assumption did not examine the possibility that increased crop production due to the BCAP program could lead to increased use of such machinery (and other related sources of air pollutant emissions) and increased total emissions compared to a No Alternative baseline.

## Other Economic Analysis Issues

### *Impacts of Matching Payments Program*

Page 1-6 of the EIS states that the Matching Payments Program was determined not to be a major Federal action because it supports materials that are already being used in the marketplace. However, subsidizing existing production practices can still have important socioeconomic and environmental impacts that seem worth exploring in an EIS. Did CCC consider expanding the scope of the EIS to include the matching payments program, which would provide an opportunity to assess the three implementation options proposed in the NPRM? In particular, incentivizing the use of wood and wood waste for bioenergy but not for other uses is likely to raise input prices faced by wood processors, which could lead to reductions in income and employment in traditional wood product industries.<sup>1</sup> Thus, the socioeconomic impacts of BCAP are not solely positive as is claimed in chapter 5 rather, some industries will gain, and others will lose.

Raising wood prices and shifting inputs between industries could also lead to environmental impacts by incentivizing shifts in land use or causing industries that traditionally use wood for power to switch to other fuel sources if they do not receive the same subsidy level as new users of biomass.<sup>1</sup>

### *Definition of the baseline and policy scenario*

Typically a baseline or “no action alternative” would represent a business-as-usual scenario in which BCAP is not implemented and would account for any biomass and bioenergy production that is anticipated to occur without BCAP—for instance, due to the RFS2 mandate. The EIS states that “the objective of this alternative was to produce sufficient feedstock to meet the legislative requirements of EISA, both from corn... and from dedicated energy crops.” (p. 4-9). What evidence supports the assertion that BCAP will enable the entire RFS2 mandate to be achieved. It appears that CCC assumed a certain biofuel production level and used that as an input to the model, rather than modeling the incremental change in biomass price caused by the subsidy and estimating the resulting increase in biofuel production. Did CCC consider a modeling approach that would give biofuel production as an output of the model rather than assuming a level of production as a model input? Impacts may be overestimated due to the strong assumptions about no baseline renewable fuels growth and high growth with the BCAP subsidy.

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<sup>1</sup> Sedjo, R. 2010. “The Biomass Crop Assistance Program (BCAP): Some Implications for the Forest Industry.” Discussion Paper 10-22, Washington, DC: Resources for the Future.

Sedjo, Roger A., and Brent Sohngen. 2009. “The Implications of Increased Use of Wood for Biofuel Production.” Issue Brief 09-04 (June). Washington, DC: Resources for the Future.

### *Economic analysis assumptions*

It is not clear why CCC used the assumption of a \$45 per ton match as an input to the modeling exercise considering that is the upper bound payment defined by the statute. Did CCC have data on actual biomass prices or projected baseline prices and if so, how did these data correspond to the \$45 per ton price? The matching payment is likely to incentivize additional production of biomass that leads to a drop in the prices paid to producers by biomass conversion facilities. Is it possible for the POLYSYS modeling approach to instead estimate the new equilibrium biomass price in response to the matching payment instead of providing the payment rate as an input to the model?

What were CCC's assumptions were about the timeframe of the matching payments and annual payments program? Page 4-48 notes that CCC assumes that matching and annual payments are still being given in 2020. Are CCC's assumptions consistent with the statutory limitations of the programs, which place a 2-year limit on matching payments and define contract lengths of 5 to 15 years (depending on the crop type) for annual payments?

### *Interaction between BCAP and CRP*

It would have been helpful to discuss the expected impacts of BCAP on the Conservation Reserve Program to understand the implications for environmentally sensitive land that is currently out of production. Page 3-8 of the EIS notes that commodity prices are an important determinant of CRP enrollment. Is a decrease in CRP enrollment anticipated since CCC estimates large impacts on crop prices as a result of alternative 2?

### **Monitoring**

EPA recommended in its comments on the draft programmatic EIS that the final programmatic EIS include a monitoring component to assess the program's impacts and effectiveness and how the monitoring program will be used as a feedback mechanism for the program and subsequent individual projects. The final programmatic EIS does not have a monitoring component.

EPA recommends that the Record of Decision include a monitoring program.

### **Environmental Justice**

EPA recommended in its comments on the draft programmatic EIS that the final programmatic EIS discuss how the Civil Rights Impact Analysis (CRIA) meets the intent of E.O. 12898. The final PEIS does not specifically explain how the CRIA meets the letter and intent of E.O. 12898.

Alternative 1 states that no new nonagricultural lands would be allowed to enroll for BCAP crop production. EPA notes that there may be lands that are waste lands, brownfields, abandoned mine land or environmental clean-up sites that could be restored using native grasses. These lands may be an ideal location for a BCAP initiative. Some of the abandoned mine lands cover significant acreage that could provide a good area for use as a biofuels resource. Restoration at some of these locations may be expensive. The potential to recover some of the costs by providing an energy crop source could provide a positive impact for communities, particularly communities with environmental justice concerns. This would allow these abandoned lands, once restored, to financially benefit the communities in which they are located. Currently, these types of lands appear to be eligible only under Alternative 2.

EPA recommends that one of the criteria for deciding between projects that may be competing for limited funding under the BCAP program be its environmental and economic benefit to EJ communities. In addition, EPA also recommends that USDA consider including waste lands, brownfields, abandoned mine land and environmental clean-up sites under Alternative 1.