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GrowthEnergy.org

April 29, 2021

**RE: Docket No. USDA-2021-0003**

U.S. Department of Agriculture  
Secretary Tom Vilsack  
1400 Independence Avenue SW  
Washington, DC 20250

Dear Secretary Vilsack,

Thank you for the opportunity to submit comments to the U.S. Department of Agriculture (USDA) regarding agriculture's role in tackling the climate crisis both at home and abroad. Biofuels like ethanol are a readily available, renewable energy solution that reduces carbon emissions today. The biofuels industry stands ready to partner with USDA in achieving our nation's climate goals.

Growth Energy is the world's largest association of biofuel producers representing 86 U.S. plants that produce almost 8 billion gallons of cleaner-burning, renewable fuel annually; 95 businesses associated with the production process; and tens of thousands of biofuel supporters across the country. Together, we are working to bring better and more affordable choices at the fuel pump, improve air quality, and protect the environment for future generations. In a particularly unusual year of depressed demand in 2020, the ethanol industry purchased 4.78 billion bushels of corn to produce nearly 14 billion gallons of biofuels and more than 36.4 million tons of dried distillers grains<sup>1</sup>. Also in 2020, 26.6% of field corn went into fuel ethanol and served as the second-largest customer for U.S. corn<sup>2</sup>. Accordingly, we have a strong interest in the future success of American agriculture.

We agree with your comments during your Senate confirmation hearing that biofuels will play a role in reducing our carbon emissions while providing job opportunities along the way.

**Biofuels are Key to Cleaner Air**

Incorporating biofuels into our nation's fuel supply has been one of our most successful energy policies to date, benefitting both the environment and consumer. With many states and localities increasingly exploring public policy options to lower carbon emissions, biofuels have become an

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<sup>1</sup> "Grain Crashings and Co-Products Production- 2020 Summary," U.S. Department of Agriculture. March 2021.  
<https://downloads.usda.library.cornell.edu/usda-esmis/files/v979v304g/jh344m06h/1j92h279h/cagcan21.pdf>

<sup>2</sup> "Corn Usage by Segment 2020," National Corn Growers Association. April 2021.  
<https://www.worldofcorn.com/#corn-usage-by-segment>

affordable and accessible solution for many. Recent studies clearly demonstrate that biofuels can immediately contribute to lowering greenhouse gas (GHG) emissions and decarbonizing our transportation sector.

In fact, a recent January 2021 study by Environmental Health and Engineering, Inc. found that **ethanol reduces GHGs by 46%<sup>3</sup> compared to traditional gasoline**. USDA also supported a study which found corn ethanol's relative carbon benefits could reach up to 70% by 2022<sup>4</sup>. Additionally, biofuels are responsible for nearly 80% of all carbon reductions credited under California's Low Carbon Fuel Standard, with the recorded carbon intensity of ethanol declining 33% since 2011<sup>5</sup>.

Recent improvements in ethanol's carbon scores can be attributed to the related efficiencies in land use and biorefineries. Our corn growers are producing stronger yields with less acreage, and our ethanol plants can obtain more gallons per bushel of corn. Total cropland has fallen from 470.8 million acres of cropland in 1978 to 391.9 million acres by 2012<sup>6</sup>. Moreover, yields of corn have increased dramatically over the last 50 years, increasing from 72.4 bushels per acre in 1970, to 172 bushels per acre in 2020. Even over the last 10 years, corn yield has increased by 20%, while land planted for corn has remained steady.<sup>7</sup>

With these facts in mind, Growth Energy supports USDA serving as the primary agency to determine the carbon impact of farming. USDA is best positioned to accurately determine how precision agriculture and improved practices lower carbon intensity scores for farming, and therefore the overall carbon intensity for ethanol. This will make biofuels like ethanol a more attractive solution towards addressing climate change when advanced farming practices are appropriately recognized.

### **Investing in Biofuels Infrastructure**

Promoting and growing programs like the Renewable Fuel Standard and initiatives to expand access to higher biofuel blends like E15, E30, and E85 can build on biofuels' environmental progress and expand the market for American agriculture. USDA's Biofuel Infrastructure Partnership (BIP) in 2015 and the Higher Blends Infrastructure Incentive Program (HBIIP) in 2020 are prime examples how the agency can support the productivity of our farmers and boost rural economies while decreasing greenhouse gas (GHG) emissions.

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<sup>3</sup> "Carbon Intensity of corn ethanol in the United States: State of the science," *Environmental Health & Engineering, Inc.*. Melissa Scully, Gregory Norris, Tania Alarcon Falconi, and David MacIntosh (March 2021). <https://iopscience.iop.org/article/10.1088/1748-9326/abde08>

<sup>4</sup> "The greenhouse gas benefits of corn ethanol—assessing recent evidence," *Biofuels*. Jan Lewandrowski, Jeffrey Rosenfeld, Diana Pape, Tommy Hendrickson, Kirsten Jaglo, Katrin Moffroid (2020). 11:3, 361-375, DOI: [10.1080/17597269.2018.1546488](https://doi.org/10.1080/17597269.2018.1546488).

<sup>5</sup> "Data Dashboard: Low Carbon Fuel Standard," California Air Resources Board. May 2020, <https://ww3.arb.ca.gov/fuels/lcfs/dashboard/dashboard.htm>.

<sup>6</sup> "Cropland, 1945-2012, by State: The sum of cropland used for crops, cropland idled, and cropland used for pasture," U.S. Department of Agriculture's Economic Research Service. August 2017, <https://www.ers.usda.gov/data-products/major-land-uses/>

<sup>7</sup> "Crop Production Historical Track Records," National Agricultural Statistics Service. April 2021, [https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/croptr21.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/croptr21.pdf)

In fact, Growth Energy's unmatched network of both large and small retail partners secured nearly \$30 million from USDA's HBIIP program for over 290 sites selling 400 million gallons of gasoline annually. The public and private investments we have seen through HBIIP allows retailers to continue upgrading infrastructure for higher blends of ethanol and expand consumer access to this cleaner-burning, more affordable fuel across the country.

Currently, more than 95% of cars on the road are compatible with E15 and more than 20 billion miles have been driven on E15. There is a significant market available today for higher blends of biofuels if consumers can access these products. The biofuels industry is ready to provide the fuel necessary to meet those demands; however, long-term infrastructure incentives for our retailers, like the competitive grant structure under BIP and HBIIP, must be available. Demand for the grants exceeded funds available, demonstrating that retailers and the consumers they serve want a lower cost fuel and more choices at the pump. This gives retailers a competitive advantage in the market while providing our transportation sector a higher quality fuel that decreases GHG emissions and displaces toxic fuel additives. We have attached a historical grant perspective from Prime the Pump which includes specific recommendations and considerations for potential infrastructure programs from USDA.

### **Ethanol's Advancement in Carbon Capture**

Approximately 50 U.S. ethanol plants already capture, clean, and condense 99%-pure carbon dioxide. According to Christianson PLLP's Biofuels Benchmarking program, plants capturing carbon dioxide do so at an average rate of 1,980 tons of carbon dioxide per million gallons of ethanol produced, with the top 25% capturing 3,075 tons of carbon dioxide per million gallons of ethanol produced. This means an average-sized ethanol plant captures between 99,000 to 153,000 tons of carbon dioxide each year. With a nationwide fleet of more than 200 ethanol plants, there is room to significantly expand on these carbon savings.

Carbon dioxide captured by ethanol plants has a wide array of uses as a water treatment measure for municipalities, preservative for commercial food and beverage companies, and dry ice production for COVID-19 vaccination storage. It can also be permanently sequestered through appropriate geological storage sites. Our facilities capture and transport carbon dioxide directly to customers, significantly dropping the net amount of carbon dioxide that would be emitted into the air or drilled out of the ground.

As USDA continues to develop benchmarks to improve environmental accountability, we encourage the agency to incorporate carbon dioxide savings realized by a quarter of the nation's ethanol facilities as a contributing factor towards cutting agriculture's environmental impact.

### **Other Countries Use Biofuels to Meet Climate Goals**

By rejoining the Paris Climate Agreement, the United States is returning to a leadership role regarding climate change on the international stage. Given biofuels' ability to immediately reduce carbon emissions in the transportation sector, we ask that biofuels be included as a major component towards meeting our climate goals. Sector-specific details have not been released by the United States' Nationally Determined Contribution (NDC) strategy, but nearly 30 countries already rely on biofuels as part of their NDCs.

Brazil, one of our industry's largest competitors, cites continued support for its biofuels sector as a component of its climate mitigation strategy:

“Brazil intends to adopt further measures that are consistent with the 2°C temperature goal, in particular: increasing the share of sustainable biofuels in the Brazilian energy mix to approximately 18% by 2030, by expanding biofuel consumption, increasing ethanol supply, including by increasing the share of advanced biofuels...”<sup>8</sup>

The United Kingdom recently made a national commitment to an E10 blended fuel beginning September 2021 as a means to reduce GHG emissions. The Department for Transport stated that the introduction of E10 fuel will boost its government's ambitions towards reaching net-zero emissions by 2050<sup>9</sup>. It will also amount to carbon dioxide emission savings of 750,000 tons a year, equivalent to taking 350,000 cars off the road. Another close ally is taking similar measures.

Canada is currently developing a Clean Fuel Standard (CFS) to reduce its lifecycle carbon intensity of transportation fuel used throughout the country. Several provinces have already set minimum blend targets for ethanol, with Ontario, the largest province, leading the way with a E10 requirement. As Canada continues to design a CFS with incentives for low carbon fuels, we expect further use of biofuels in the years ahead.

We must maintain leadership among the worldwide markets for biofuels as more and more countries recognize ethanol as a readily available tool towards meeting their global commitments. One way to improve access for our producers is encouraging the removal of burdensome trade barriers in the global market for ethanol.

### **Conclusion**

We urge USDA to continue bringing biofuels to the table as our country designs a strategy to reduce overall carbon emissions. Biofuel production allows our farmers and rural economies to participate in consistent markets as we also work to reduce the environmental impact of the agriculture sector. We are grateful for your consideration of these comments and look forward to working with the department to advance these important initiatives.

Sincerely,



Emily Skor  
CEO, Growth Energy

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<sup>8</sup> “Intended Nationally Determined Contribution Towards Achieving the Objective of the United Nations Framework Convention on Climate Change,” Accessed April 2021.  
<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Brazil%20First/BRAZIL%20iNDC%20english%20FINAL.pdf>

<sup>9</sup> “Press Release: Fuelling a greener future: E10 petrol set for September 2021 launch,” February 2021.  
<https://www.gov.uk/government/news/fuelling-a-greener-future-e10-petrol-set-for-september-2021-launch>