



Written Testimony of Bryan Sievers
Sievers Family Farms
AgriReNew JV
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“Implementation of the 2018 Farm Bill: Rural Development and Energy Programs.”
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Introduction

Chairman Roberts, Ranking Member Stabenow and Members of the Committee, thank you for asking me to testify at today's hearing focusing on the Implementation of the Energy Title of the 2018 Farm Bill.

My wife Lisa and I own and operate Sievers Family Farms near Stockton, Iowa. We are fifth generation Iowa farmers that run a 2,400 head beef cattle feedlot, produce corn, soybeans, and hay on approximately 2,200 acres. Our farm operates two complete-mix anaerobic digesters where we produce biogas that is used to generate renewable electricity, which is sold to Alliant Energy, and reclaimed heat, which is used to heat our digesters and other buildings on our farm. We focus on stewardship and conservation of our natural resources in our operations and have implemented numerous water quality and soil health practices over the years, including grassed waterways, field borders, buffer strips, terraces, contour-farming, no-till and strip-till, grid soil sampling, and cover crops.

As a result of my experience in agriculture and anaerobic digestion, I also serve on the Board of Directors of the American Biogas Council (ABC) which is the only national trade association representing the entire biogas industry in the U.S. We represent over 200 companies in all parts of the biogas supply chain who are dedicated to maximizing the production and use of biogas from organic waste. The mission of the ABC is to grow biogas business in the United States which creates jobs, protects our air, water and soil and catalyzes energy independence and new investments.

The ABC is in turn a member of the AgEnergy Coalition, a group of organizations committed to a strong, bi-partisan energy title. The ABC and the AgEnergy Coalition believe that strengthening rural America and on-farm economies are two key ways to advance the deployment of renewable energy, and the production of biofuels and renewable chemicals.

Over the past few years, I have become very involved in federal policy affecting the digester industry. I have also been and remain involved in advocating for state policies that affect the agricultural and rural economy. The experiences I have gained while serving in the Iowa House of Representatives (2001-2002) and the Iowa Senate (2003-2004) helped me draft legislation in 2011 which expanded Iowa's renewable energy tax credit program for anaerobic digesters and biogas producers that generated electricity for re-sale to the electric utilities. This bill passed the Legislature and was signed into law by Governor Branstad in 2011.

I also served as Chair of the Biomass Conversion Committee. This committee was created by the Iowa Economic Development Authority as a result of the 2016 Iowa Energy Plan which was developed under the authority of then Lieutenant Governor Kim Reynolds. Our Biomass Conversion Committee prepared a Biomass Action Plan in the spring of 2018, now included in Iowa's comprehensive renewable energy policy. The Biomass Action Plan focuses on ways to enhance water quality, air quality, and soil health. Producing renewable electricity and renewable natural gas from the biogas produced through the anaerobic digestion of organic waste streams and manure is a key part of the Plan to reach those goals.

Supporting the BioEconomy

I come before you today to urge the Committee to closely oversee the implementation of the 2018 farm bill. This important piece of legislation contains many programs intended to help farmers diversify their income streams. In the midst of trade wars, horrible weather and the Administration's actions to undermine the Renewable Fuel Standard (RFS), the farm bill energy title programs continue to provide value to farmers, agricultural producers and small rural businesses. American farmers and rural communities are hurting. While U.S farms' net income is forecasted to rise in 2019ⁱ, these challenges are squeezing farmers between decreasing commodity prices caused by an escalating trade war with China and the gutting of the RFS caused by issuing more Small Refinery Exemptions for the RFS than ever before. In both cases, the Trump Administration's actions have dramatically decreased the value of several of the products we and our fellow farmers produce and that dramatically reduces the revenue we need to keep our farm operating.

Members of Congress have labored over numerous farm bills to craft policies that minimize fluctuations caused by commodity price volatility. As members of this Committee continue to implement the 2018 farm bill, we ask members to keep in mind the value of our 21st century biobased economy which can help offset some of the earlier discussed headwinds which are affecting our farms, families and the agriculture economy. Chief among these policies is the farm bill Energy Title, Title IX, which creates high-value jobs and new income streams for American farmers, accelerates the commercialization of new technologies and products derived from agriculture, and supports construction of biogas systems and biorefinery manufacturing facilities in rural communities. Conventional and advanced biofuels (including renewable natural gas derived from biogas), chemicals, and biobased products made with biotechnology can drive the demand for crops (including cover crops) and crop residuals. This can boost on-farm revenue.

The 2018 farm bill (Agriculture Improvement Act of 2018; P.L. 115-334) extends most of the 2014 farm bill energy title programs through FY2023 and provides new mandatory funding. It establishes one new program of great interest to the American Biogas Council—the Carbon Utilization and Biogas Education Program. Unfortunately, however, the 2018 farm bill provides less mandatory funding than previous farm bills for energy title programs. For instance, the 2018 farm bill energy title programs mandatory funding level (\$375 million) is approximately 46% less than the mandatory funding provided in the 2014 farm bill (\$694 million). Alternatively, the total discretionary authorization provided by the 2018 farm bill (\$1.7 billion) is approximately 13% more than what was authorized in the 2014 farm bill (\$1.5 billion) for the energy programs. While the latter increase sounds positive, most energy title programs did not receive discretionary appropriations under previous appropriation bills, something that should change.

To ensure the American bioeconomy continues to expand, Congress must continue to oversee the implementation of the 2018 farm bill. Given the discrepancy in mandatory energy title funding between the 2014 and 2018 farm bill, we urge Congress to increase annual discretionary funding to ensure the success of these programs. We ask that this Committee continue to express its support to the Appropriators and urge them to fully fund the discretionary amounts for energy title

programs. Robust discretionary funding will support additional deployment of on-farm renewable energy and catalyze the development of American biotechnologies that convert domestic crops and agricultural residues to energy and value-added products, while also creating high paying rural jobs, encouraging economic growth, and improving the health of our environment.

The following are the programs contained within Title IX of the 2018 Farm Bill which support our industry and for each one:

- a description of how the programs work;
- products these programs have helped develop; and
- how the ABC believes these programs can be improved in their implementation.

Farm Bill Energy Title Programs

- Section 9002 Biobased Markets Program, known as the BioPreferred® Program
- Section 9003 Biorefinery, Renewable Chemical, and Biobased Product Assistance Program (BAP)
- Section 9005 Bioenergy Program for Advanced Biofuels
- Section 9007 Rural Energy for America Program (REAP)
- Section 9008 Biomass Research and Development (BRDI)
- Section 9010 Biomass Crop Assistance Program (BCAP)
- Section 9011 Carbon Utilization and Biogas Education Program

Section 9002, the Biobased Market Program, or the BioPreferred® Program

The goal of the BioPreferred® Program is to increase the purchase and use of biobased products from agricultural feedstocks. The program's purpose is to spur economic development, create new jobs and provide new markets for farm commodities. The increased development, purchase, and use of biobased products reduces our nation's reliance on petroleum, increases the use of renewable agricultural resources, and mitigates adverse environmental and health impactsⁱⁱ

BioPreferred® achieves these goals through two initiatives: (1) a mandatory purchasing requirement for federal agencies and their contractors and (2) a voluntary labeling initiative for biobased products. Products that meet the minimum biobased content criteria may display the USDA Certified Biobased Product label. ⁱⁱⁱ

Under the Biobased Markets Program, federal agencies and their contractors are generally required to purchase biobased products from 109 categories of goods—among which are cleaners, carpets, lubricants, office supplies, and paints—when an agency procures \$10,000 or more worth of an item within these categories during the course of a fiscal year, or where the quantity of such items or of functionally equivalent items purchased during the preceding fiscal year was \$10,000 or more.^{iv}

The 2018 farm bill extended the Biobased Markets Program through FY2023, while adding some new implementation requirements. It requires the Secretary to update the eligibility criteria for determining which renewable chemicals will qualify for a “USDA Certified Biobased Product” label. It also requires the Secretary and the Secretary of Commerce to develop new North American Industry Classification System (NAICS) codes for both renewable chemical manufacturers and biobased product manufacturers, and for the Secretary to establish a national registry of testing centers for biobased products. Additionally, it requires USDA to establish an expedited approval process for products to be determined eligible for the

procurement program and to receive a biobased product label. Finally, the 2018 farm bill prohibits a procuring agency from establishing procurement guidelines for biobased products that are more restrictive than what the Secretary has established. The 2018 farm bill authorized mandatory funding of \$3 million for each of FY2019-FY2023 for biobased products testing and labeling. Discretionary funding of \$3 million was authorized to be appropriated for each of FY2019-FY2023. However, through FY2019 no discretionary funding has been appropriated for the Biobased Markets Program.

Recommendations

The BioPreferred® Program could be better utilized to create an initial market for the full range of products from a biogas system including fiber, nutrient products, digestate. The promotion of nutrient recycling is especially important in watersheds designated as distressed. The U.S. is witnessing significant water quality issues which could be addressed by processing manures and extracting the nutrients. These nutrients can then be further processed, taken out of the water shed, and be sold as sustainable fertilizer. The ABC encourages the BioPreferred® Program to be more inclusive of biogas system products, especially those generated from digestate, the digested organic material from an anaerobic digester.

Furthermore, we encourage USDA to increase outreach and education to augment public awareness and acceptance of renewable chemicals and biobased products through BioPreferred® program's voluntary labeling and procurement system. Finally, we ask that the Committee support the full annual appropriation of \$3 million in discretionary funding for FY2020-2023.

Section 9003 Biorefinery, Renewable Chemical, and Biobased Product Assistance Program

This program assists in the development of new and emerging technologies for advanced biofuels, renewable chemicals, and biobased products. Competitive grants and loan guarantees are available for construction and/or retrofitting of demonstration-scale biorefineries to demonstrate the commercial viability of one or more processes for converting renewable biomass to advanced biofuels.^y

This loan guarantee program enables producers to access capital for large-scale projects in rural communities. Without the loan guarantee program, new technologies might never be able to pool sufficient capital to commence development of a project in a rural community with a small population.

The 2018 farm bill extended the program through FY2023. It expanded the definition of eligible technology to include technologies that produce one or more of the following, or a combination thereof: an advanced biofuel, a renewable chemical, or a biobased product. The 2018 farm bill authorized mandatory funding of \$50 million for FY2019 and \$25 million for FY2020 for the cost of loan guarantees. Discretionary funding of \$75 million was authorized to be appropriated for each of FY2019-FY2023. No discretionary funds have been appropriated through FY2019.

Recommendations

This incredibly impactful program has allowed companies to put steel in the ground for first-of-their-kind biorefineries. These biorefineries are proven job and economic growth drivers for rural communities. We urge the Committee to support appropriating the maximum funding authorized - \$75 million annually – through 2023.

Section 9005 Bioenergy Program for Advanced Biofuels

This program encourages production of advanced biofuels, other than corn starch ethanol. The policy goal is to create long-term, sustained increases in advanced biofuels production. Awards are made through Rural Development to biofuels producers, based on the amount of advanced biofuels produced from renewable biomass. Feedstocks incentivized by this program include crop residue, food and yard waste, vegetable oil and animal fat. The program has promoted the development of biogas, wood pellets, biodiesel, and advanced and cellulosic ethanol.^{vi}

Section 9005 funding helps stakeholders increase their return on investment, which is needed to proceed with constructing a new plant or expanding capacity at an existing facility. Without Section 9005 mandatory funding, companies working on advanced biofuel technologies have one less tool to support innovation and commercialization of the cleanest fuels in the world. Current USDA funding programs help advanced biofuels succeed; the industry cannot afford to be without one of these programs.

The 2018 farm bill authorized mandatory funding of \$7 million for each of FY2019-FY2023. Discretionary funding of \$20 million was authorized to be appropriated for each of FY2019-FY2023. We ask the Committee to continue to support the appropriation of full discretionary funding for the Bioenergy Program for Advanced Biofuels through FY2023.

Section 9007 Rural Energy for America (REAP)

This outstandingly popular, successful, and constructive program supports every state and region and renewable energy and energy efficiency technology. REAP provides benefits to the full agricultural value chain, from producers and co-ops, to biotechnology and clean energy companies operating across rural America.^{vii} Over 13,000 projects across all 50 states have received awards since its inception in the 2008 Farm Bill, leveraging more than \$3 billion in private investment. REAP is one of the rural economy's best methods to drive growth in America's energy infrastructure and resiliency.

The program has been instrumental in helping deploy biogas systems throughout the rural economy allowing agricultural producers, through the use of digesters, to make products from waste streams – manure and crop residues – that would otherwise be viewed as an environmental challenge. Farmers can now take these wastes streams and make on-farm renewable energy, nutrient-rich soil amendments, fertilizers, renewable natural gas, and even feedstocks for renewable chemicals and bioplastics. The sale of all these products helps protect the agricultural producer from swings in commodity prices.

The 2018 farm bill extends the program through FY2023. It also retains mandatory funding of \$50 million for FY2014 and each fiscal year thereafter (thus, unlike other farm bill renewable energy programs, REAP's mandatory funding authority does not expire with the 2018 farm bill). Mandatory funds are to remain available until expended. Discretionary funding is authorized to be appropriated at \$20 million annually for each of FY2019-FY2023. Discretionary funding of \$335,000 was appropriated for FY2019.

Recommendations

This widely popular program has been oversubscribed year after year. We urge the Committee to support appropriating the maximum funding authorized - \$20 million annually – through 2023.

Historically, digesters and other underserved technologies such as small-scale wind have disproportionately been unsuccessful in securing REAP funding. The ABC and the AgEnergy Coalition encourage the establishment of a reserve fund that would better support these “underserved technologies,” by setting aside no more than 10% of the funding for these underserved technologies and returning any unused funds back into the applicant pool. We understand that this concept is something the Committee recognizes, and that USDA has used similar structures in the past.

We are hopeful that including a REAP reserve fund for underserved technologies such as biogas will improve access and that farmers, ranchers and small rural businesses can further deploy this exceptionally valuable technology. USDA should be in the business of promoting development of less market mature but proven technologies like biogas and small-scale wind in REAP, as it does in other programs.

Section 9008 Biomass Research and Development Initiative (BRDI)

The Biomass Research and Development Initiative (BRDI) seeks to foster significant commercial production of biofuels, biobased energy innovations, development of biobased feedstocks, and biobased products and processes, including cost-competitive cellulosic ethanol. The program provides competitive funding in the form of grants, contracts, and financial assistance for research, development, and demonstration of technologies and processes. Eligibility is limited to institutions of higher learning, national laboratories, federal or state research agencies, private sector entities, and nonprofit organizations.^{viii}

BRDI provides coordination of biomass research and development, including life-cycle analysis of biofuels, between USDA and DOE by creating the Biomass Research and Development Board to coordinate government activities in biomass research, and the Biomass Research and Development Technical Advisory Committee to advise on proposal direction and evaluation.^{ix}

Applicants seeking BRDI funding must propose projects that integrate science and engineering research in the following three technical areas that are critical to the broader success of alternative biofuels production: feedstock development, biofuels and biobased products development, and biofuels development analysis.

The 2018 farm bill extended the program through FY2023. It amends the definition of biobased product to include carbon dioxide, and it requires the Initiative’s technical advisory committee to include an individual with expertise in carbon capture, utilization, and storage. Furthermore, it expands the objectives of the Initiative to include the development of high-value biobased products that permanently sequester or utilize carbon dioxide. The 2018 farm bill provided no mandatory funding for the program. Discretionary funding of \$20 million is authorized to be appropriated annual for FY2019-FY2023. However, no discretionary funding has been appropriated for BRDI through FY2019.

Recommendations

Further research into feed stock development and technology optimization will help encourage far greater deployment of bio technologies including anaerobic digesters throughout the U.S. We urge the committee to support full annual discretionary funding of BRDI at \$20 million for FY2020-2023. Appropriations cuts in past years have led to smaller grants, limiting the diversity of projects.

Section 9010 Biomass Crop Assistance Program (BCAP)

The Biomass Crop Assistance Program (BCAP) provides financial assistance to owners and operators of agricultural and non-industrial private forest land who wish to establish, produce, and deliver biomass feedstocks. ^x BCAP provides assistance by either 1) establishment of annual payments or 2) matching payments.

Establishment and annual payments are available to certain producers who enter into contracts with USDA to produce eligible biomass crops on contract acres within designated BCAP project areas. ^{xi} Eligible land for BCAP project area contracts includes agricultural land and nonindustrial private forestland, but does not include federal or state-owned land, or land that is native sod. Lands enrolled in existing land retirement programs for conservation purposes—the Conservation Reserve Program (CRP) or the Agricultural Conservation Easement Program (ACEP)—also become eligible during the fiscal year that their land retirement contract expires. Generally, crops that receive payments under Title I, the commodity title, of the farm bill (e.g., corn, wheat, rice, and soybeans), plus noxious weeds and invasive species are not eligible for annual payments.

Matching payments are available to eligible material owners who deliver that material to qualified biomass conversion facilities. Eligible material must be harvested directly from the land and separated from a higher-value product (e.g., Title I crops). Invasive and noxious species are considered eligible material, and land ownership (private, state, federal, etc.) is not a limiting factor to receive matching payments.

Despite initial challenges, this program remains crucial to developing the feedstocks necessary for the biobased economy. The program's regionally appropriate biomass feedstocks are key to the development of sustainable systems for biofuels, renewable chemicals, and biobased products.

BCAP has incentivized nearly 1,000 growers and landowners farming nearly 49,000 acres to establish and produce dedicated, non-food energy crops for delivery to energy conversion facilities.^{xii} In 2014 and 2015, USDA approved 209 contracts for matching payments of \$15.8 million toward the collection or harvest of approximately 300,000 dry tons of forest residues from National Forest Service and Bureau of Land Management public lands. Forest residues are removed for the reduction or containment of disease or insect infestation and reduction of wildfire threat, the last of which is a significant threat to the Western U.S.^{xiii}

The 2018 farm bill extended BCAP through FY2023 and expanded the definition for eligible material to include algae. Unfortunately, the 2018 farm bill provided no mandatory funding for the program. Discretionary funding of \$25 million was authorized to be appropriated for each of FY2019-FY2023. No discretionary funding was provided for FY2019.

Recommendations

When well-funded, BCAP has the potential to be a huge benefit to the development of the biobased economy and to farmers and agricultural producers looking to diversify their income streams. We urge the committee to support full annual discretionary funding of BCAP at \$25 million for FY2020-2023. The greatest impediment to BCAP's success has been the elimination of mandatory funds in the recent farm bill and by appropriators "CHIMPS" as well as delays by USDA in implementing the program.

Section 9011 Carbon Utilization and Biogas Education Program

This new program was established in the 2018 farm bill and requires the Secretary to award competitive grants to eligible entities for two purposes:

1. education to the public and biogas producers about the benefits of carbon utilization and sequestration; and
2. education about the opportunities to aggregate multiple sources of organic waste into a single biogas system.

The 2018 farm bill provided no mandatory funding for the program but authorized discretionary funding of \$2 million annual for each of FY2019-FY2023. No funds have been appropriated through FY2019.

Recommendations

While anaerobic digestion technology is mature, greater deployment throughout the rural economy has been slowed due to a lack of awareness and farmer education about how they work and their benefits. Digesters are one of the greatest methods available to trap methane emitting waste products such as manure and crop residues and convert it to renewable energy, nutrient-rich soil amendments, fertilizers, renewable natural gas, and feedstocks for renewable chemicals and bioplastics. Providing greater education and outreach to farmers and agricultural producers could greatly increase the deployment of digesters as well as the utilization of farm bill energy title programs that support digesters. We urge the Committee to support fully funding the \$2 million authorized annually for this program.

Biogas Opportunities Task Force

Language directing USDA, EPA and DOE to establish an Interagency Biogas Opportunities Task Force (building upon the existing Biogas Opportunities Working Group) was contained in the Conference Report accompanying the 2018 farm bill.

This provision states that no later than 180 days after the date of enactment of the Agriculture Improvement Act of 2018, the USDA Secretary in coordination with the Secretary of Energy and the EPA Administrator will establish an Interagency Biogas Opportunities Task Force to coordinate policies, programs, and research to accelerate biogas research and investment in cost-effective biogas systems.

The Task Force is composed of the head of each Federal office responsible for biogas research or biogas system financing, including a representative from the Department of Agriculture, the Department of Energy, the Environmental Protection Agency (EPA), and National Renewable Energy Laboratory. The Task Force will also have 1 or more representatives of State or local governments, 1 or more nongovernmental or industry stakeholders, and a community stakeholder.

The Task Force will evaluate and improve the coordination of loan and grant programs of the Federal agencies represented on the Task Force to broaden the financing options available for biogas systems. It will also explore how to enhance opportunities for private financing of biogas systems; review Federal procurement guidelines to ensure that products of biogas systems are eligible for and promoted by applicable procurement programs of the Federal Government; evaluate the development of North American Industry Classification System and North American Product Classification System codes for biogas and biogas system products; review opportunities and develop strategies to overcome barriers to integrating biogas into electricity and renewable natural gas markets; develop tools to broaden the market for non-energy biogas system products; provide information on the ability of biogas system products to participate in markets that provide environmental benefits; identify and investigate research gaps in biogas and anaerobic digestion technology; including research gaps in environmental benefits, market assessment; and performance standards; assess the most cost-effective voluntary

investments in biogas to reduce waste and methane emissions; and identify and advance additional priorities, as determined by the Task Force.

Not later than 18 months after the date of the establishment of the Task Force, the Task Force will submit to Congress a report that identifies whether it was able to carry out the duties outlined above and include recommendations on how Congress should prioritize policies and technological opportunities, aimed at expanding the biogas industry. The report will also consider recommendations on how to eliminate barriers to investment in biogas systems in the landfill, livestock, wastewater, and other relevant sectors; and to enhance opportunities for private and public sector partnerships to finance biogas systems. Two years after the establishment of the Task Force it will identify, collect, and analyze environmental, technical, and economic performance data relating to biogas systems, including the production of energy from biogas systems, co-products, greenhouse gas and other emissions, water quality benefits, and other data necessary to develop markets for biogas and biogas system co-products. The data will be made public.

To date, this language has not been acted upon. We have been told by USDA Administration that unless the language is statutory or unless Congress provides additional funding to implement this provision that it will continue to be ignored.

Recommendations

Implementation of the Biogas Opportunities Task Force will help drive research, collaboration, innovation, education, outreach and deployment of anaerobic digestion technologies. As the Biogas Opportunities Working Group recognized, these technologies help turn agricultural challenges into opportunities by converting manure and other agricultural wastes into renewable energy, nutrient-rich soil amendments, fertilizers, a renewable natural gas, and even feedstocks for renewable chemicals and bioplastics.^{xiv} We urge the Committee to support this language and work with the Agency to oversee its implementation.

Non-USDA/Non-Farm Bill Programs

Renewable energy production plays a key role not just in agricultural policy, but also in energy, tax, and environmental policy. As a result, many of the federal programs that support renewable energy production in general, and agriculture-based energy production in particular, are outside the purview of USDA and have origins outside of omnibus farm bill legislation. The Renewable Fuel Standard, for example, was established outside of farm bill legislation.

The Renewable Fuel Standard

The RFS mandates an increasing volume of biofuels use and has its origins in the Energy Policy Act of 2005 (P.L. 109-58). The RFS was expanded in the Energy Independence and Security Act of 2007 (EISA; P.L. 110-140) and divided into four distinct, but nested, biofuel categories—total, advanced, cellulosic, and biodiesel—each with its own mandated volume. Biogas qualifies as both a cellulosic and advanced biofuel, depending on the feedstock. In fact, biogas makes up well over 90% of the annual cellulosic volumes. Additionally, biogas from non-cellulosic feedstocks such as food waste is a growing category. While not a USDA administered program, the RFS significantly impacts the on-farm and rural economy because it can be a significant source of revenue to farms when administered properly by EPA. Additionally, USDA recommendations assist in the calculations of annual renewable fuel volume targets. When the RFS is being administered well and running smoothly, it provides an additional stream of income that can help buffer the effects of on-going trade disputes or the impacts of bad weather. When the RFS is being administered poorly, it can add to the farmers and agricultural producers' woes.

Waivers

We strongly argue that the continued abuse of the small refinery exemptions undermines the integrity of the RFS and is in direct contravention of the statute passed by Congress in 2007. We urge the EPA to limit the use of these waivers to only their intended purpose.

Biomass Derived Renewable Electricity

When reauthorized and expanded through the Energy Independence and Security Act of 2007 (EISA; P.L. 110-140), Congress included electricity made from renewable biomass as part of the fuel mix in the RFS. One of the main goals of the RFS is to incentivize the development and deployment of new American produced biofuels, which will create energy independence and new markets for producers including the electricity produced from biomass.

Furthermore, EPA included electricity derived from biogas in the Renewable Fuel Standard Program.^{xv} Yet, while numerous applications to generate biogas derived electricity have been submitted, none have been approved. The EPA has yet to set up the processes necessary for producers to generate Renewable Identification Numbers (RINs). As shrinking markets and trade wars increasingly strap small farmers, the revenue that they should generate from the sale of these eRINs may be the difference between shutting down and staying open.

Building electricity into the RFS is not a way to incentivize electric vehicles. One may only look to how the ethanol market works to understand. The producer of ethanol receives the RIN credit for fuel blended into the larger gasoline supply. This in no way encourages or discourages the use of traditional vehicles; it simply ensures the producer of biofuels gets the credit to which they are entitled under the RFS. The same applies to renewable electricity powering electric vehicles. Biofuels, such as the biogas produced from anaerobic digesters, are already being “blended” into the electricity supply but the producers of these biofuels are not able to receive the RINs credit. The use of the biogas, which consists of methane and carbon dioxide, as a fuel to generate renewable electricity helps improve our air quality, water quality, soil health, and the environment while mitigating the effects agricultural production has on our climate.

Incorporating electricity into the RFS is also not a threat to ethanol producers. The majority of the fuel would be added to the cellulosic biofuel category (D3 RIN), which is separate from the ethanol market’s D6 RIN.

Recommendations

If Congress is looking for a way to help farmers during the difficult trade talks and the competing interests of the oil industry, supporting the RFS would be an ideal way of doing so. Ensure the integrity of the RFS by only granting waivers to those small refiners who truly qualify. We also ask Congress to uphold the letter and intent of the RFS by directing EPA to include renewable biomass derived electricity to the annual blending requirements. Agricultural producers should be allowed to participate in the RFS as Congress originally intended, and it would help producers stay afloat even with other uncertainties.

Conclusion

Farm Bill energy title programs have been incredibly successful in growing the on-farm and rural economy. Because of the research, loans, and grants provided by these programs, biogas and biotechnology companies are developing new

technologies and feedstocks for the conversion of biomass for the production of renewable energy, advanced biofuels, renewable chemicals, renewable fertilizers and biobased products.

The biogas industry is on the cusp of creating a robust biobased economy through U.S. biobased production, which strengthens rural and on-farm economies. Biogas systems encompass a value chain from agriculture through the manufacture of consumer goods that provides a cost-competitive alternative to petroleum's value chain and brings environmental, economic and other benefits.

Encouraging growth of our industry provides new markets for farmers and agricultural producers, promotes innovation in domestic manufacturing and exports, and stimulates sustainable economic growth. In turn, because the inputs and technologies are domestically developed, this sector will boost the incomes of America's farmers, revitalize rural communities, create high-skilled jobs in the manufacturing sector, and provide sustainable employment.

The ABC and the Ag Energy Coalition are ready to serve as a resource to the Committee in implementing the farm bill's energy title programs and look forward to working with you as you do so.

ⁱ United States Department of Agriculture Economic Research Service, 2019 Farm Sector Income Forecast <https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/farm-sector-income-forecast>

ⁱⁱ USDA BioPreferred <https://www.biopreferred.gov/BioPreferred/faces/Welcome.xhtml>

ⁱⁱⁱ Ibid

^{iv} Ibid, Product Categories

^v USDA Biorefinery Renewable Chemical and Biobased Product Manufacturing Assistance Program <https://www.rd.usda.gov/programs-services/biorefinery-renewable-chemical-and-biobased-product-manufacturing-assistance>

^{vi} USDA Advanced Biofuel Payment Program <https://www.rd.usda.gov/programs-services/advanced-biofuel-payment-program>

^{vii} USDA Rural Energy for America Program <https://www.rd.usda.gov/programs-services/rural-energy-america-program-renewable-energy-systems-energy-efficiency>

^{viii} USDA National Institute of Food and Agriculture BRDI <https://nifa.usda.gov/funding-opportunity/biomass-research-and-development-initiative-brdi>

^{ix} Ibid

^x USDA BCAP <https://www.fsa.usda.gov/programs-and-services/energy-programs/BCAP/>

^{xi} See FSA, USDA, “BCAP Project Area Information,” at <https://www.fsa.usda.gov/programs-and-services/energyprograms/BCAP/bcap-project-area/index>.

^{xii} Biomass Crop Assistance Program (BCAP) Qualified Biomass Conversion Facilities (BCF's) FY 2017 [https://www.fsa.usda.gov/Assets/USDA-FSA Public/usdfiles/Energy/BCAP%20Facility%20Listing%20FY2017.pdf](https://www.fsa.usda.gov/Assets/USDA-FSA%20Public/usdfiles/Energy/BCAP%20Facility%20Listing%20FY2017.pdf)

^{xiii} USDA Resumes Incentives to Grow the Bioeconomy and Improve Forest Health. https://www.fsa.usda.gov/newsroom/news-releases/2016/nr_20161110_rel_185

^{xiv} Biogas Opportunities Roadmap, *Voluntary Actions to Reduce Methane Emissions and Increase Energy Independence*, August 2014. https://www.energy.gov/sites/prod/files/2014/08/f18/Biogas%20Opportunities%20Roadmap%208-1-14_0.pdf

^{xv} Approved Pathways for Renewable Fuel <https://www.epa.gov/renewable-fuel-standard-program/approved-pathways-renewable-fuel>