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Section 9003 Biorefinery Assistance Program Proposed Rule Making
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DEPARTMENT OF AGRICULTURE
Rural Business-Cooperative Service
7 CFR Parts 4279, 4287 and 4288
Biorefinery Assistance Guaranteed Loans;
Repowering Assistance Payments to
Eligible Biorefineries; Subpart B—
Advanced Biofuel Payment Program;
Proposed Rules

Comments of Biotechnology Industry Organization:
United States Department of Agriculture
Biorefinery Assistance Program

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Introduction

The Biotechnology Industry Organization ("BIO") would like to thank the United States Department of Agriculture ("USDA") for its support of the industrial biotechnology industry and commercial biorefinery development as well as the opportunity to provide comments on the Section 9003 Biorefinery Assistance Program proposed rule as issued.

BIO is the world's largest biotechnology organization, providing advocacy, business development and communications services for more than 1,200 members worldwide. In our Industrial and Environmental Section our companies represent the entire value chain of biofuels and biobased products from dedicated energy crop and other feedstock producers, enzyme companies, commercial scale integrated biorefinery developers and large chemical, energy and oil companies. BIO supports the USDA Biorefinery Assistance Program goal to encourage the development of commercial scale biorefineries that produce advanced biofuels.

This program is among the most critical, if not THE most critical program necessary to move the advanced biofuels industry into commercialization and produce the required volumes of renewable fuels needed to meet the Renewable Fuel Standard ("RFS") and reduce our dependence on petroleum.

Secretary Vilsack has said that USDA Rural Development is the primary agency charged with commercialization of the advanced biofuels industry and we look forward to working with the department to ensure this and other energy related programs at the agency work efficiently to support the advanced biofuels industry. Below are BIO's comments on issues of interest contained in the proposed rule for the Biorefinery Assistance Program, established in §9003 of the Food, Conservation, and Energy Act of 2008.

Advanced Biofuel Definition

The definition of advanced biofuels in the Food, Conservation, and Energy Act of 2008 leaves some ambiguity in regards to the inclusion of biofuels derived from sugar and starch. We believe USDA needs to clarify that advanced biofuels other than ethanol, for example fuels with a different molecular structure such as biobutanol, or other hydrocarbons with four or more carbons, produced from a corn starch feedstock, qualify for this program under the definition of advanced biofuel. The proposed rule for this program states that "to be eligible for payments, advanced biofuels must be produced from renewable biomass, excluding corn kernel starch, in a biorefinery located in the United States". The inclusions section of the advanced biofuel definition in the legislation specifically includes "(ii) biofuel derived from sugar and starch (other than ethanol derived from corn kernel starch) and (vi) butanol or other alcohols produced through the conversion of organic matter from renewable biomass".

Recommendation: BIO believes that this legislative ambiguity requires USDA to clarify in the final rule that the only fuel produced from corn kernel starch excluded from this program is ethanol, per the legislation.

Maximum Loan Guarantee Amount

USDA is proposing that the maximum amount of the loan guarantee be $250 million under this program. The proposed rulemaking limits the amount of the USDA guarantee percentage to 60-80% of the total loan amount with a maximum of 60% for loans greater than $125 million.

Insufficient or too low loan guarantee amounts create a major hurdle for first-of-kind technology projects by requiring the placement of significant amounts of unguaranteed debt in very challenging markets. While we believe that funding unguaranteed portions might be possible in the taxable and tax exempt bond markets (as discussed below), it is not at all clear that these volatile markets will in fact be receptive to unproven technology project risk. There is therefore a very real risk that projects that succeed in obtaining a partial USDA loan guarantee nevertheless end up failing to fund the unguaranteed portion in any market.

Furthermore, the tiered structure of the guarantee levels is based solely on the size of the loan amount, without regard to overall capital structure. This can create a situation where the USDA guarantee is exposed to a

disproportionate share of project risk relative to private capital. The example below highlights this dynamic. In this example, on a $200 million project, with a capital structure of 75% debt and 25% equity, the USDA guarantee covers 60% of the loan amount, or $90 million. This reflects nearly double the investment of equity providers. However, if the guarantee percentage were based on the capital structure, with the guarantee percentage growing to 80% on projects that have a minimum of 40% equity, USDA's exposure on the project is the same, at $90 million, and yet less than the exposure of equity providers.

Total project cost
$ 200 Million

D/E level	Equity ($million)	Debt ($million)	USDA guarantee per NOPR ($million)	USDA guarantee @ 90% ($million)	USDA guarantee / Equity
75/25	50	150	**90**		1.8
50/50	100	100	70	**90**	**0.9**

Recommendation: The statutory language in the 2008 Farm Bill allows for loan guarantees of up to 90 percent of the entire loan amount. Furthermore, other very successful guarantee and loan programs at agencies such as the U.S. Export-Import Bank and the Overseas Private Investment Corporation provide 100% guarantee coverage (or if a loan, agency hold levels of 100%). We recommend that USDA adhere to this statutory language to provide maximum flexibility for project finance. In the alternative, CEA suggests that USDA adopt a tiered guarantee coverage based on the overall capital structure, for example:

Minimum Equity Percentage	USDA Guarantee Level
50%	90%
40%	80%
30%	70%
20%	60%

This structure would allow the USDA to more fully employ its statutory ability to covering up to 90% of a loan for strong projects with a significant equity, where private capital contributions are strong. For large projects, as most commercial scale advanced biorefinery projects will be, it still affords a sizeable unguaranteed exposure to lenders. This will ensure adequate risk sharing and therefore due diligence by private capital sources whether in the form of unguaranteed loans or equity participation.

Preapplications
The Agency is requesting comment on whether or not a pre-application process for the Biorefinery Assistance program will provide sufficient benefit to lenders and borrowers.

A preapplication process that serves as a screening process could be very helpful to all parties. Considerable effort is required to develop an application package that may ultimately not score high enough to meet eligibility requirements. In addition, lenders have to commit to the application process with no reference as to how USDA will view the project. One option would be to move the Feasibility Study (section 4279.261) and the evaluation scoring (section 4279.265) into a preapplication process. Both of these would have to be done anyway (so no extra work is created) and most of what is being scored is required in the Feasibility Study. Filtering out ineligible or otherwise low scoring projects would streamline the overall process and improve program efficiencies.

Recommendation: BIO recommends that USDA develop a robust pre-application process.

Production in Non-Rural Areas

USDA is seeking comment on whether this program should require that eligible facilities be located in rural areas or if non-rural facilities should also qualify.

While we recognize the importance for USDA to increase economic opportunity and improve the quality of life in rural communities, we caution against defining "Rural Area" with too much restriction, potentially disqualifying ideal sites for biorefineries that would, in fact, meet the program goals and increase economic opportunity in rural communities, but may be located in areas that do not fit the program definition. USDA's proposed definition of Rural Area per the proposed rule:

> *Any area of a State not in a city or town that has a population of more than 50,000 inhabitants, according to the latest decennial census of the United States, and the contiguous and adjacent urbanized area, and any area that has been determined to be ''rural in character'' by the Under Secretary for Rural Development, or as otherwise identified in this definition. In determining which census blocks in an urbanized area are not in a rural area, the Agency will exclude any cluster of census blocks that would otherwise be considered not in a Rural Area only because the cluster is adjacent to not more than two census blocks that are otherwise considered not in a rural area under this definition.*

For a biorefinery, the cost of feedstock can typically represent 80% of the total cost of finished product. As a general rule, a majority of the feedstock will inherently come from the rural community, and be produced/collected/harvested by a local labor force. Similarly construction and operation workforces will be predominantly local. The rural economic development potential resulting from a biorefinery is substantial. One advantage of advanced biofuels is that they can be produced all over the country utilizing multiple feedstocks. Projects should not be evaluated negatively on one the advanced biofuels industry's greatest assets, flexibility. Offering eligibility to facilities in non-rural communities is critical to the success of the program goals and the advanced biofuels industry. Restricting the location of these facilities is not necessary to maintain the spirit of enhancing rural development and the geographic diversity of advanced biofuels production. More flexibility of site selection, not less, should be installed in these programs.

Further, having a consistent, cost competitive regional supply of feedstock is key to the success of any project. Non rural plants that use agricultural feedstocks will most certainly rely on the surrounding rural communities to produce, harvest, store, and handle feedstock needs. With feedstock cost representing the largest operational cost of a biorefinery, this in turn means that most of what the plant spends goes to the rural community in paying for that feedstock. This should demonstrate that the biorefinery does not need to be in a rural area to fulfill program goals. Excluding plants that are not in rural areas denies the supporting rural community significant opportunity.

Recommendation: BIO strongly recommends USDA not impose location restrictions on placement of eligible biorefineries.

Level of Revenue from Advanced Biofuel

USDA is proposing that a project applying for a Biorefinery Assistance Program Loan Guarantee must meet the eligibility requirement of more than 70% of the revenue generated by the biorefinery must be from the sale of advanced biofuel. USDA is requesting comments on the percentage of a biorefinery's sales that must come from the sale of eligible advanced biofuels in order to be eligible under this program. The Agency recognizes that other biobased products can potentially be a sizeable portion of a biorefinery's revenues and thus affect the viability of the biorefinery. However, the Agency's primary goal of this program is to encourage the production of advanced biofuels.

BIO believes that all products of the biorefinery should qualify for assistance if it replaces or can replace a petroleum derived molecule for the production of a transportation fuel or as a feedstock into the petrochemical industry.

An integrated biorefinery as described by the DOE as similar to a petrochemical refinery where crude oil is processed into a variety of fuels and chemicals. In order to achieve this integrated biorefinery model, biofuel companies will have to go into production of biochemicals themselves (incurring enormous capital expenditure costs), or enter into a joint venture with existing biochemical companies that have ready to scale technology.

Under the Biorefinery Assistance Loan Guarantee Program §9003 the mandate that 70% of the revenue generated must be from the sale of advanced biofuel will unreasonably restrict the creation of integrated biorefineries. A chemical production facility that would be included as part of a biorefinery would be limited to produce no more than 30% of the revenue at the biorefinery, yet the revenue generation of chemicals compared to fuels is traditionally disproportionately higher.

As a practical matter, the current focus on biofuels serves to achieve the goals of the Renewable Fuel Standard. Since only 8% of every barrel of oil today goes toward making petrochemicals and plastics, at first glance, this focus makes sense.[1] But the fact is, the economic value created by chemicals and plastics is disproportionately higher than that of transportation fuels. In the US, that 8% used to make chemicals and plastics generates $255 billion of GDP; while the rest of the oil used in commercial transportation and transportation related manufacturing generate $350 billion.

This revenue restriction does three things. It inhibits the creation of joint ventures by putting a cap on the future revenue of potential biorefinery partner (chemical production or other component.) It limits the growth potential due to market demand or other external factors of the biochemical or product component. And it limits the ability of biofuel companies to enter into a revenue generating joint venture in efforts to become economically viable and self sufficient over the long term.

In addition, as a practical matter, the USDA will be required to regulate a revenue generation requirement on an ongoing basis. Regulation of the revenue generation of private business within a free enterprise is questionable policy. It does not incentivize biofuel partners to create profitable business models within an integrated biorefinery.

The USDA does not have a rational basis for this limitation grounded in sound economics, nor does it serve the broader policy purposes of the program. Biofuels and bioproduct companies alike should not be limited in revenue for any reason. They should be free to develop innovative new business models in order to achieve sustainable success.

The most powerful aspect of the biorefinery is the ability to produce multiple products, so that the plant can weather price drops, fluctuations in demand and volatile feedstock prices by arbitraging between the various products produced and privileging those that are the most profitable at any given time. If this cap exists and biofuels are not economically viable or require large subsidies to be viable, then limiting the amount of higher value added products that can be produced will condemn the biorefinery to failure. Producing multiple products improves the economic viability and efficiency of any biorefinery.

Recommendation: BIO recommends that USDA eliminate the eligibility requirement of more than 70% of the revenue generated by the biorefinery must be from the sale of advanced biofuel.

[1] Renewable Fuel Standards as set by the Energy Independence and Security Act 2007 (EISA 2007)

Cash Equity Requirement

USDA is proposing that projects must have cash equity injection of not less than 20% of the eligible projects costs not attributed to other Federal grant of loan programs. They are also asking for comment regarding whether the requirement should differ between construction and development versus retrofitting?

The proposed rule requires that a "project must have cash equity injection of not less than 20 percent of eligible project costs not attributed to other federal grant or loan programs" (§4279.228, FR p. 20062). While such a cash injection is not required by statute, the Agency has proposed to require it "because cash equity represents the best commitment of the borrower to the project and it can help reduce project risk by making cash available during construction and project startup." The proposed rules do permit, within limitations, that "(t)he fair market value of equity in real property that is to be pledged as collateral for the loan may be substituted in whole or in part to meet the cash equity requirement."

The requirement for a 20% cash infusion will impose a significant burden that may render many otherwise well-qualified projects unable to secure financing. Any applicant that brings a project to the stage where it is able to achieve financial closing will, by virtue of the selection criteria, have incurred significant pre-closing costs that will not take the form of real property that can be collateralized. This is especially likely to be the case with projects that make use of new technology or new feedstocks, endeavors that are especially likely to require up-front commitments of capital.

It would certainly be appropriate, in the scoring of applications, to grant extra points to those applicants that commit to provide cash equity at closing, thereby enhancing the competitive position of their proposals; however, the posting of this equity commitment should not be an absolute threshold requirement for participation, as this would have the effect of removing many otherwise-worthy projects from consideration.

Recommendation: The Agency should eliminate the requirement for 20% cash equity and permit applicants to include preconstruction costs as contributed equity.

Value of feedstock supplied by producer associations and cooperatives

The Agency is requesting comments on the percentage of feedstocks that must be purchased from producer association and cooperatives in order to be awarded points in the scoring of applications. The Agency is proposing a 60 percent threshold for such purchases. The Agency is seeking to try to strike a balance between giving priority to the purchase of feedstocks from producer associations and cooperatives and encouraging new feedstocks and technologies.

Placing limitations on feedstock procurement options is not recommended. Feedstock availability and price basically determine the success of the plant and maximum flexibility should be awarded in order to maximize the opportunity for success.

Recommendation: USDA should not place limits on feedstock suppliers in order to qualify for this program.

Citizenship of Applicant

The Agency is requesting comment on whether biorefineries that do not meet the proposed citizenship requirements (§ 4279.227(a)(2)) of at least 51 percent domestic ownership, including those owned entirely by immediate family members where only one of the family members meets citizenship requirements, should be eligible for a loan guarantee under this program.

The citizenship status of the applicant should not be an eligibility requirement of a facility as it has no effect on the program goal of encouraging the development of commercial scale biorefineries that produce advanced biofuels. As stated above, the rural economic development potential resulting from the local construction and operation of a biorefinery is substantial and these facilities use local feedstocks and employ U.S. workers.

Therefore, the ability for a biorefinery to provide substantial local economic development opportunities is directly related to the location of the facility, not the citizenship of the owner.

Illustratively, the U.S. clean tech sector will need $10 trillion of capital in the next ten years if we expect to reach climate change goals.[2] Currently in the U.S., this sector struggles to shift from research and development to large-scale deployment in an uncertain economic and regulatory environment. Private equity investors readily recognize the investment risk of bringing these technologies across the commercialization gap. Many U.S. private equity investors are simply unwilling to take on the burden of helping green tech companies to cross into full-scale commercialization, what they call the "Valley of Death," without the same regulatory certainty that exists today in China and Europe.

U.S. equity investment incentives, already limited in scope by government programs, are cut down further by a 10% reduction in the capital costs of new technology deployed on foreign soil i.e. the Middle East, China, Malaysia. In addition, as technology deployment costs are lower overseas, foreign governments have gone far and beyond U.S. government commitments to clean technology. The China Development Bank has allocated $11.7 Billion for solar production alone over the next ten years – with regulatory certainty in place for the next ten years. These are the competitive realities of the clean tech sector on a global scale.

U.S. government grants, loans, and loan guarantees are a large piece of incentivizing private financing for large-scale commercial projects. This incentive is diminished by §4279.227 (a) (2) requiring at least 51 percent domestic ownership. It presents the green business world with a conundrum. We need government grants, loans and loan guarantees to attract investors who understand green investment. The investors who understand a green investment framework are often foreign where the clean tech investment framework is readily understood. Yet the U.S. loan guarantees put a 51 percent limitation on foreign investment. In the age of a global economy, this citizenship requirement is impractical and ineffective. It inhibits the purpose of the program to incentivize private equity investment in the sector.

Finally, as a regulatory matter, a 51 percent determination of domestic investors is untenable. An investor's domicile often cannot be discerned as foreign or domestic. A successful, ready to scale biochemical company is usually funded by a number of sources, both foreign and domestic, often made up of venture funds with investment from around the world, funds of funds, and independent investors alike. To discern whether or not the fund that owns a fund, that is invested in a particular portfolio company has 51% U.S. ownership, is not only impractical, it is impossible.

As green tech companies struggle to find funding from U.S. and foreign investors alike, the U.S. government clings to an outmoded policy that limits the substantial investment incentives of grants, loans and loan guarantees that will bring the U.S. green economy to scale. We ask that the USDA remove the 51 percent domestic ownership limitation from this program.

Recommendation: The USDA should eliminate the 51% U.S. citizen ownership requirement in this program.

Local ownership

The Agency is requesting comment on the definition of ''local owner'' in scoring applications under § 4279.265(d)(9) for determining the percent local ownership of the biorefinery. The Agency is seeking comment in particular on the relationship of an owner to the area supplying the feedstock to the biorefinery and whether the proposed distance of 20 miles beyond the feedstock area is reasonable.

[2] Green Private Equity Conference Panel, June 1, 2010 The Goldman Sachs Center for Environmental Markets The Goldman Sachs Center for Environmental Markets, The Harvard Business School Green Business Alumni Association, The HBS Green Business Alumni Association

Local ownership requirements place additional investment challenges on projects that otherwise could have a significant impact on rural development. Lack of investment financing is the biggest impediment and this requirement handicaps projects even further. BIO recommends eliminating this requirement.

Recommendation: The Agency should not require local ownership of a biorefinery to qualify for this program.

Established Market for Advanced Biofuel and By-Products

In the scoring of applications for the loan guarantees, USDA is proposing that five out of 100 points be awarded for providing a greater than 60% commitment for feedstocks, marketing agreements for advanced biofuel and biobased products produced.

The Agency, according to the preamble, "believes that it is important to have commitments and agreements on both the feedstock side of the project and on the sales side of the project. Thus, the Agency is continuing to require both supply and offtake commitments and agreements as part of the demonstration of whether a borrower has established a market." (FR p. 20055) Under the proposed rule, applicants will be scored in part on the basis of whether they have contracted for a minimum of 60% of their required feedstock and established a market for the advanced biofuel and other by-products produced (§ 4279.265, D1, FR p. 20070).

BIO agrees that it is appropriate to demonstrate that there is a market for the product from the facility, but believes that the Agency should apply this requirement flexibly in view of two facts. First, unlike electricity which is typically contracted over a multi-year time horizon, liquid fuels are traded almost entirely through short-term spot markets. Second, it was due in part to recognition of this basic structural feature of fuels markets that Congress enacted, in 2005, and expanded, in 2007, a Renewable Fuel Standard (RFS) that codifies a purchase mandate in federal law. The RFS establishes targeted levels for purchases of cellulosic biofuel, as well as default pricing mechanisms for credits when available quantities of that fuel are insufficient to meet the needs of an obligated party under the law. The existence of this mandate provides strong assurance that a market will exist for cellulosic biofuels production, at a price up to the cost that an obligated party under the RFS would incur to purchase alternative supplies plus credits to fulfill its obligation.

To illustrate potential issues with the rule as proposed, the biofuels industry has experienced significant road blocks when navigating the Department of Energy loan guarantee program application process in this regard. Therefore, BIO is asking for the following inclusion in The Innovative Technology Loan Guarantee Program (Title XVII of EPAct):

> *"Loan guarantee applications for emerging technologies, such as advanced biofuels, should not be evaluated against more mature technologies, such as wind or solar. The liquid fuels marketplace does not operate within a framework that lends itself to long-term, fixed-price forward contracting mechanisms therefore, DOE should not require these contracts as evidence of "reasonable prospect of repayment" for biofuels projects. The Committee recommends that this program also be expanded to include eligibility for renewable chemicals and biobased products in addition to biofuels."*

Recommendation: USDA should apply this requirement flexibly because - unlike electricity which is typically contracted over a multi-year time horizon - liquid fuels are traded almost entirely through short-term spot markets and it was due in part to recognition of this basic structural feature of fuels markets that Congress enacted, in 2005, and expanded, in 2007, a Renewable Fuel Standard (RFS) that codifies a purchase mandate in federal law. USDA should recognize the markets already put in place by federal programs and regulations for biofuels and biobased products like the RFS and Biopreferred Program. USDA should not give undue weight to this requirement due to the unique challenges of establishing fuels markets.

Lender Requirements

The proposed rulemaking would require that a regulated bank, as the original lender and loan servicer, hold at least 50% of the unguaranteed portion of the loan amount. For loans greater than $125 million, under the current 60% guarantee coverage, this represents a minimum hold of $25 - 50 million.

This level of unguaranteed loan retention by the original lender is simply unobtainable in the current market. As regulated depository institutions, banks are extremely reluctant to make loans to technology projects for risk and regulatory capital reasons. Cellulosic ethanol and other advanced biofuels projects are, by their very nature, technology development projects and their sub-investment grade ratings reflect the inherent risk. Potential lenders of record have unanimously expressed to producers that anything but a *de minimis* amount is too great without some form of additional high quality, liquid collateral pledged in their favor (e.g., cash).

Recommendation: USDA recognizes the special needs of first-of-kind projects and affords them extra points in the scoring criteria it uses to evaluate projects. We recommend that in addition, it exempt first-of-kind projects from the minimum lender retention requirement except for a de minimis amount.

For projects that employ established technology, we recommend the USDA match the lender retention rule to the successful USDA Business & Industry Guaranteed Loan and the Rural Energy for America Program Guaranteed Loan Programs. As mentioned above, in a loan guarantee that has $50 million in unguaranteed debt, this amount is still significant and will make the lender-of-record completely engaged. This will not change the fundamental fact that all of the other unguaranteed debt still has to be placed into the market with the exact same due diligence that the lender-of-record will perform, ensuring adequate risk mitigation for the USDA.

Finally, since a "lender-of-record" serves as the applicant for the program this restrictive definition of eligible "lenders-of-record" fundamentally restricts the potential applicant pool. USDA should allow SEC-regulated investment banks, as well as commercial banks that may solely act as a Trustee or Servicer in a transaction act as the applicant "lender-of-record."

Ability to Utilize Bond And Capital Markets

The proposed rulemaking allows only for the sale of indirect "participations" in the unguaranteed portions with the original lender retaining title to the notes and does not contemplate the sale of notes or bonds in the capital markets (except with respect to the sale of the guaranteed portion to accredited investors).

As described above, banks are unwilling to fund the unguaranteed portion of the loans. In the current market, only institutional investors are able, through capital markets transactions, to assume the perceived level of risk on the unguaranteed portion of the loans. Efficient capital markets transactions, including the sale of bonds, will require the direct sale by the borrower of notes or bonds to investors.

Recommendation: BIO recommends that USDA allows the borrower to issue notes or bonds directly to accredited investors by way of capital markets offerings for both the guaranteed and unguaranteed portions. As is market practice, a trustee would act on behalf of the bond investors as a class with the original lender performing the role of Collateral, Inter-creditor and Administrative Agent on behalf of all lenders, investors and the USDA. In that role, the original lender will perform all of the servicing duties contemplated under the proposed rulemaking.

Interest Rate Differential

The proposed rulemaking requires that the blended interest rate of the guaranteed and unguaranteed portions be no more than 1.0% higher than the rate on the guaranteed portion.

Market-based interest rate differentials on the guaranteed and unguaranteed portions will be significant reflecting the difference between a AAA-rated, full faith and credit guarantee of the United States on the one

hand and sub-investment grade rated technology project debt on the other**.** (Current market differentials are estimated to be greater than 6.0%).

Recommendation: BIO recommends that USDA eliminate the limitation on interest rate differential since it fails to reflect the wide difference in credit risk to the holders of the guaranteed and unguaranteed portions.

Loan Disbursement

Requiring the simultaneous disbursement of the guaranteed and unguaranteed portions will unduly burden projects using bonds with excess "negative carry" costs (the difference between the interest rate on the loans and money market reinvestment rates earned while funds are held pending disbursement).

Construction periods for capital intensive projects of the type envisioned under the program are generally very long. Most project financings with long construction periods rely on bank lenders to disburse funds over a construction loan period and thereby avoid negative carry costs. However, when bonds are one of the funding sources (as we believe is necessary under the program), bond market convention requires simultaneous closing and funding of bond proceeds. In cases when bonds and bank loans are used together for a project financing, bonds are generally placed first with proceeds held in a disbursement account pending construction draws. Once the bond proceeds have been used, the bank lender then funds its share of the loans over the remainder of the construction period.

Recommendation: BIO recommends that USDA allow the guaranteed and unguaranteed portions, whether capital markets offerings or bank loans, to be funded disproportionally to reduce construction period interest costs for the projects. To address the potential mismatch in exposure based on differing funding schedules, the Inter-creditor Agreement will require that upon a default the under-funded lender (likely to be the guaranteed bank lender) fund its *pro rata* share of the loans (or purchase *pro rata* participations from the over-funded lender). As is typical for project financings, a requirement that satisfactory debt and equity commitments for the full funding of the project budget are entered into at closing should also be added to the list of program requirements.

Interest Rate Basis

The proposed rulemaking requires the guaranteed and unguaranteed portions to be on the same interest rate basis (i.e., both variable rate or both fixed rate).

Bank project financing is most efficiently provided on a floating rate basis (e.g., LIBOR-based) during the construction period given the difficulty of setting a fixed rate on future loan disbursements over a long construction period. Bond investors however typically require fixed rate issuance.

Recommendation: BIO recommends that USDA allow the guaranteed and unguaranteed portions to be fixed or floating without requiring both portions to be on the same basis. An appropriate (and conventional) additional requirement to minimize interest rate exposure for a given project would be to the extent the project company borrows on a floating rate basis for all or a portion of the loans, it will enter into interest rate management agreements that reduce interest rate risk during the life of the project.

Equity Funding

The timing of project equity funding under the NOFA is under-addressed.

Recommendation: The rule should be *pro rata* funding of project equity with loan disbursements provided the underlying equity commitments are on a firm basis from creditworthy entities (defined as investment grade or otherwise deemed creditworthy by the lender). If the equity commitments are not from creditworthy entities, then upfront equity funding from less than creditworthy sponsors shall be required as a condition of closing..

Tax Exempt Offerings

Tax-exempt project debt appears permitted but should be explicitly allowed for both the guaranteed and unguaranteed portions. Projects should be afforded every opportunity to lower interest costs, especially by way of federal, state and local programs designed to meet regional and national priorities such as the Gulf Opportunity Zone bond programs.

Recommendation: Borrowers should be permitted in all cases to access the tax exempt capital markets, including when necessary through state authority issuance vehicles.

Working Capital

The proposed rulemaking requires the borrower to receive a first priority pledge of collateral, including potentially working capital.

Commodity projects, especially fuels facilities, are typically able to obtain low cost, highly efficient working capital loans from specialist lenders secured by inventory and receivables. These loan facilities are usually entered into just prior to, or just after, commencement of operations. The proposed rule making does not contemplate the use of traditional working capital loans separately secured by inventory or receivables.

Recommendation: BIO recommends that USDA allow collateral carve outs for inventory and receivables pledged to working capital lenders. Also, make the maintenance of adequate working capital levels a post-completion requirement. In other words, allow time during the construction period for complete analysis and funding of the project's working capital requirements, including negotiation of working capital loans from specialist lenders.

Feedback from Lenders

In finalizing the proposed rules, BIO particularly urges the Agency to give due consideration to feedback it receives from prospective lenders who are, ultimately, the entities that would be submitting applications on behalf of candidate projects. In the experience of BIO member companies, lenders have thus far been almost uniformly unwilling to engage with biofuels project developers under the terms of the USDA loan guarantee program, despite efforts by some member company project developers to engage with dozens of, or in some cases more than one hundred bankers and other potential financing sources. Among the chief concerns identified to BIO member companies are the following: the requirement that lenders hold any portion of the non-guaranteed portion of a loan; the requirement that non-guaranteed loans carry terms identical to those that apply for guaranteed loans, despite the much different risk profiles of these two instruments; and the limitation on the difference between the interest rate on the guaranteed loan, vs. the weighted average interest rate for the full loan amount, to one percent.

Eligible technology

The proposed rule (§ 4279.202) defines an eligible technology as either (i) one that is "being adopted in a viable commercial-scale operation of a biorefinery that produces an advanced biofuel," or (ii) one that has been "demonstrated to have technical and economic potential for commercial application in a biorefinery that produces an advanced biofuel." The section goes on to define "technical and economic potential" as having "at least a 12 month (four seasons) operating history at semi-work scale, which demonstrates the ability to operate at a commercial scale." This definition of technical and economic potential is inconsistent with prevailing industry practice and requirements of other federal programs. Standard industry practice is to operate a demonstration plant for a sufficient enough time to generate steady state operating data that validates key unit operations and the integrated biorefinery process. For example, the DOE requires 6 months of operations and 1000 to 2000 hours of operating data at the demonstration scale level.

Recommendation: USDA should adopt a 1000 hour operating data requirement to define "technical and economic potential" instead of the 12 month requirement in the proposed rule.

Eligible feedstock

The definition for Renewable Biomass (§ 4279.202 (a) (2) (ii)) does not specifically include municipal solid waste. The House Conference Report for the 2008 Farm Bill -- House Report 110-627, p. 1048, lines 3 -8 – specifically provides that: "Examples of lignocellulosic or hemicellulosic matter that is available on a renewable or recurring basis include dedicated energy crops and trees, wood and wood residues, plants, grasses, agricultural residues, fibers, animal wastes and other waste materials, and ***municipal solid wastes*** [emphasis added]." There is no doubt that the Conference Managers intended that municipal solid waste can be used as a feedstock. The public interest is not served by limiting the number and types of technologies that can be used to build biorefineries, or in limiting the types of feedstocks that are available for use and can provide an economic benefit to rural America.

Recommendation: BIO requests that USDA specifically state in the final rule that municipal solid waste can be used as a feedstock.

Impacts on Resource Conservation, Public Health and the Environment

The Agency is considering an approach that would award more points to facilities that produce biofuels that significantly reduce lifecycle GHGs by compared to conventional fuels they replace in the market; facilities that produce biofuels that do not demonstrate significant GHG reductions of would receive fewer points. For example, in the case of liquid biofuels, fuels that have been certified as advanced biofuels, cellulosic biofuels, or bio-based diesel under EPA's Renewable Fuels Standard achieve lifecycle GHG reductions of at least 50 percent relative to conventional liquid fuels, and so facilities that produce these fuels would receive higher points.

It is important to remember that the industry must fulfill the advanced biofuel requirement of the Renewable Fuel Standard (RFS). BIO believes that if USDA decides to award points towards an overall score that will then be used to evaluate and compare applications for facilities that produce biofuels that significantly reduce lifecycle greenhouse gas (GHG) emissions compared to conventional fuels that the regulations should be kept simple to encourage streamlined administration of the program. While we do not believe that the indirect land use change calculations included in the RFS regulation are mature or have been adequately vetted in the scientific community, if USDA does include lifecycle GHG emission reduction benchmarks as a way to reward lower emitting fuels with additional points we recommend: 1) Relying on already established regulations instead of creating a new set of regulations for those calculations (i.e. EPA RFS) and 2) Not complicating the program with multiple threshold levels that USDA will need to create and monitor, but simply create one value (5 points) for advanced biofuels that meet the RFS lifecycle GHG emission reduction requirements. Also, we urge USDA to make sure the program is flexible so that a producer can reapply in order to meet the higher criteria for the same project as it evolves.

Liquid biofuels are the only advanced biofuels that currently have a regulatory framework in place for measuring GHG emission reductions compared to their counterparts. If the definition of advanced biofuels in the final rule applies to solid, liquid, or gaseous fuels, USDA would need to determine how they will quantify gaseous and solid advanced biofuels emission reductions when compared to their counterparts. In addition, it should be assumed that producers of advanced liquid biofuels would not produce fuels that do not meet the RFS qualifications, therefore, including lifecycle GHG emission reduction requirements in this program for liquid transportation fuels would be redundant and we would caution against adding any unnecessary regulations to this program that could slow or complicate the process of awarding guarantees and therefore retard commercialization and production.

For reference, BIO submitted in its comments to the proposed rule by EPA on the administration of the RFS, opinions of land use change in the regulation. A relevant except is below:

> *RFS driven biofuels demand on global agricultural land are miniscule compared to other land use factors. This does not mean that we can ignore the indirect land use effects of biofuels, since*

the goal ultimately for biofuels would be to play an even larger role in the energy supply. It does suggest, however, that current policies can be designed in such a way that they encourage investment in biofuels without immediate risk of severe land impacts. In the meantime, further analysis can be done to determine how and if policies for large scale deployment can be implemented to safeguard land resources and prevent unintended carbon emissions.

Regulating land use related emissions of carbon through biofuels may result in the premature stifling of a potentially important sustainable energy resource for transportation, while doing nothing to address the serious problems of unsustainable global land management that continue to destroy valuable natural land resources and to contribute a tremendous amount of carbon to the atmosphere.

Unsustainable farm practices worldwide may be responsible for as much as 5 million hectares per year of lost agricultural land due to degradation and loss of performance. To put that number in context, this annual loss of land is equivalent to losing 1 to 2 billion gallons of annual ethanol production each year.

Given these considerations, BIO urges EPA to fully acknowledge the extent of the uncertainty in estimation of emissions from land use change, and ensure that emerging biofuels technologies are not disqualified from participation in the RFS2 program unless clearly demonstrated to be out of compliance with the program's GHG performance requirements under the full range of reasonable assumptions for the pertinent methodology, including assumptions that have not been adopted in EPA's proposed methodology.

Specifically, should a biofuel satisfy its GHG performance requirement under any reasonable set of assumptions under EPA's uncertainty analysis, it should be deemed to qualify.

Recommendation: In order to expedite the administration of this program to ensure the timely and effective issuance of incentives to qualified advanced biofuel producers BIO strongly recommends that if USDA does include lifecycle GHG emission reduction benchmarks as a way to reward lower emitting fuels with additional points we recommend: 1) Relying on already established regulations instead of creating a new set of regulations for those calculations (i.e. EPA RFS) and 2) Not complicating the program with multiple threshold levels that USDA will need to create and monitor, but simply create one value (5 points) for advanced biofuels that meet the RFS lifecycle GHG emission reduction requirements. Also, we urge USDA to make sure the program is flexible so that a producer can reapply in order to meet the higher criteria for the same project as it evolves.

Program Obstacles

The Agency is requesting comments on any and all provisions for the proposed Biorefinery Assistance program and the Business and Industry Guaranteed Loan program that present an obstacle for stakeholders applying for assistance in either program.

The primary obstacle is the unsecured debt requirement. Lenders are not willing to take risk in the alternative fuels industry given the current state of financial markets. The USDA must be willing to relax this rule. Options include allowing subordinate risk, such as a state or other credible entity, or offering a 100% guarantee under conditions when a high ratio of equity investment is secured, where technology risk is limited, and where there is a demonstrated ability to accelerate ROI. Loan guarantees, like loans, should not be a "one size fits all". Banks adjust loan terms based on conditions specific to the investment the loan supports. USDA should consider adjustments when the potential investment offers compelling reasons to do so.

Conclusion

In conclusion, BIO commends USDA for streamlining and accelerating programs such as the Biorefinery Assistance Program to assist in the commercialization of advanced biofuels technologies and construction of biorefinery facilities. We thank you for your consideration of these comments.

Sincerely,

Brent Erickson
Executive Vice President
Industrial and Environmental Section
Biotechnology Industry Organization