



A Guide to U.S. Department of Agriculture (USDA) Financing Opportunities for Clean Technology and Renewable Energy Projects

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Government Initiatives

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With decades of loan guarantee experience, in-depth knowledge of the rural and agricultural markets central to many renewable energy projects, and relatively stable congressional funding, the U.S. Department of Agriculture (USDA) is poised to play a pivotal role in financing renewable energy projects in 2011 and beyond.

USDA's financial assistance programs have something for everyone, from biofuels and biopower to solar, wind, tidal, geothermal, and energy efficiency projects. The 2008 Farm Bill (the Food, Conservation, and Energy Act of 2008) authorized several USDA programs that provide grants and loan guarantees of interest to developers of renewable energy and energy efficiency projects. The programs, often referred to by the Farm Bill sections in which they are found, include the following:

- **Section 9003:** **Biorefinery Assistance Loan Guarantee Program** – Loan guarantees for the development and construction or retrofitting of commercial-scale biorefineries to produce advanced biofuels. Size of guaranteed loan can be up to \$250 million.
- **Section 9005:** **Payments to Eligible Advanced Biofuels Producers Program** – Payments to producers of advanced biofuels to encourage expanded production of such biofuels.
- **Section 9007:** **Rural Energy for America Program (REAP)** – Loan guarantees for the development and construction of renewable energy systems or energy efficiency improvement projects. Also includes grants for energy audits and renewable energy development assistance and feasibility studies. Loan size is limited to \$25 million and grant size is capped at \$500,000. Applicants must be rural small businesses or agricultural producers.
- **Section 9008:** **Biomass Research and Development Program** – Grants for research consortia (which can include companies) to study feedstock development, biofuels and biobased products development, and biofuels development analysis for up to four years.
- **Section 9011:** **Biomass Crop Assistance Program (BCAP)** – Payments to agricultural and forest land owners and operators to assist with the collection, harvest, storage, and transportation of eligible biomass

material for use in a biomass conversion facility; and payments to producers of eligible biomass crops used for conversion to bioenergy in selected BCAP project areas.

Additionally, USDA’s longstanding **Business & Industry (B&I) Guaranteed Loan Program** provides credit enhancement for small- and medium-sized rural commercial projects that might not qualify under the Farm Bill programs listed above. In most cases, the B&I program limits the eligible loan size to \$25 million, but it may be combined with other USDA assistance (e.g., the REAP program).

Finally, USDA’s **Rural Utility Service** provides loan guarantees to rural power supply providers such as cooperatives to finance distribution, transmission, and renewable energy projects, including solar, wind, hydropower, biomass, and geothermal projects.

The table below serves as a guide to program eligibility by clean energy sector, with further information on each program included in subsequent sections of this booklet.

SELECTED USDA ENERGY PROGRAMS BY ENERGY SECTOR

SECTOR		9003 BIREFINERY (LOAN GUARANTEE)	9005 ADV. BIOFUELS (GRANT)	9007 REAP (GRANT)	9007 REAP (LOAN GUARANTEE)	9008 BIOMASS R&D (GRANT)	9011 BCAP (GRANT)	B&I (LOAN GUARANTEE)	RUS (LOAN GUARANTEE)
Biomass	Advanced Biofuels	X	X	X	X	X	X	X**	
	Biopower	X*		X	X			X**	X
	Bioproducts & Specialty Chemicals	X*				X		X**	
Wind			X	X			X**	X	
Solar			X	X			X**	X	
Energy Efficiency			X	X			X**		


SECTOR	9003 BIOREFINERY (LOAN GUARANTEE)	9005 ADV. BIOFUELS (GRANT)	9007 REAP (GRANT)	9007 REAP (LOAN GUARANTEE)	9008 BIOMASS R&D (GRANT)	9011 BCAP (GRANT)	B&I (LOAN GUARANTEE)	RUS (LOAN GUARANTEE)
Geothermal			X	X			X**	X
Hydropower			X	X			X**	X
Ocean			X	X			X**	
Electric Vehicles							X**	
Energy Storage			X	X			X**	

* The proposed rules for the 9003 program contemplate that biorefineries may sell power and co-products, but to be considered an eligible project, the relevant biorefineries must generate more than 70 percent of their revenues from the sale of advanced biofuels.

** Additional feasibility studies may be required for energy-related projects.

Common Features of the USDA Financing Programs. Although the USDA programs listed above have their own unique requirements and procedures, they also share many features. For example, the Section 9003, Section 9007, and B&I loan guarantee programs all rely upon eligible private sector lenders to package and service the guaranteed loans and to submit the loan guarantee application to USDA for evaluation and approval. Those programs rely heavily upon a lender’s own due diligence in evaluating the creditworthiness of a project, and USDA’s application process requires borrowers to submit, at a minimum, information that a prudent lender would require for projects of the same size and type.

Furthermore, eligible projects typically must be located in rural areas (for most programs, this generally means areas with a population less than 50,000), although in some cases USDA may exercise discretion in defining a rural area. USDA also permits project developers to combine assistance from multiple government sources (including other USDA programs), subject to aggregate limits that vary across USDA’s programs. USDA strongly encourages borrowers and lenders to confer with USDA program staff, typically at the state level, early in the project development process for guidance on program eligibility and application procedures.




Impending Rule Changes for Section 9003 Biorefinery Assistance Loan Guarantee Program. In April 2010, USDA Rural Development issued proposed rules for the Section 9003 program that mirror many of the rules applicable to the B&I loan guarantee program, but with some notable differences that USDA attributed to the much larger potential size of the Section 9003 biorefinery projects. Public comments submitted to USDA at the time identified more than a dozen issues in the design of the proposed rules with the potential to undermine the program’s effectiveness. The most noteworthy issues raised in the comments generally reflected desires for greater flexibility in the program and stronger incentives for lender participation.

For example, many commenters expressed serious concerns about:

- the lack of express authorization and a clear mechanism for the loan guarantee to be applied to bond financings (which would greatly expand the available pool of capital for such projects);
- USDA’s decision to cap the guarantee at 80 percent of the loan amount and to have a lower cap of 60 percent for larger projects, rather than the 90 percent level authorized in the Farm Bill;
- the requirement that the lender retain in its portfolio at least 50 percent of the unguaranteed portion of the loan (unlike the B&I and REAP loan guarantees, which only require lenders to retain 5 percent of the unguaranteed loan);
- the requirement that the guaranteed and unguaranteed portions of the loan carry a blended interest rate no more than 1 percent higher than the interest rate of the guaranteed portion (which would significantly constrain lenders’ abilities to price the unguaranteed portion commensurate with its risk);
- the first lien on project collateral granted to USDA for its guarantee and the absence of collateral carve-outs for working capital; and
- the U.S. citizenship and rural area requirements, which can preclude beneficial projects from being undertaken.

There are preliminary indications that USDA may address some or all of those concerns in the final rule, which is expected to be issued by early January. Other actions USDA may take to modify the proposed rules in response to the public comments include:

- relaxing the requirement that all interest rates for a loan be harmonized as either fixed or variable;
- expanding the definition of “eligible project costs” to include professional service fees and borrower contributions of property and equipment;


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- broadening the cash equity requirement to include borrower-owned processor technology (including intellectual property) contributed to a project;
 - changing the requirement that 70 percent of project revenues be derived from the sale of advanced biofuels to one based on the energy content of a project's production (to avoid complications arising from price volatility of biorefinery products); and
 - expanding the preference for local ownership of a project beyond the 20-mile radius defined in the proposed rule.

With moderate changes consistent with such comments, USDA's Section 9003 program may become the most viable government loan guarantee option for large-scale advanced biofuels projects. Consequently, many eyes will be on USDA to see what steps it takes to address the program design issues raised by industry participants so as to make the program more effective and attractive to private sector participation.

FY 2011 Funding Levels and Upcoming Reauthorization of the Farm Bill. The budgetary stalemate in Congress has created uncertainty about the levels of discretionary (or annually appropriated) funding in FY 2011 that will be available for the USDA programs described above. Owing to fiscal pressures, some reduction in discretionary funding is likely from FY 2009 and FY 2010 levels, but the mandatory funding provided by the 2008 Farm Bill is expected to provide relatively stable funding through FY 2012, when the Farm Bill and its energy-related programs will be up for reauthorization. We expect that industry participants will also have a keen interest in the 2012 Farm Bill reauthorization process to ensure that energy programs remain a focus of USDA's efforts.

Wilson Sonsini Goodrich & Rosati's energy and clean technology practice would be pleased to help you evaluate the opportunities associated with the USDA programs addressed above.

Wilson Sonsini Goodrich & Rosati also maintains the Clean Tech Resource Center, an online tool that provides clean technology entrepreneurs and companies with a searchable, easy-to-use source for federal and state government funding opportunities and guidance. The Clean Tech Resource Center is located at <http://www.wsgr.com/cleantech>.



For further information, please contact one of the project finance or government initiatives experts listed below.

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Overview of the USDA Biorefinery Assistance Loan Guarantee Program (Section 9003 of the Food, Conservation, and Energy Act of 2008)

Section 9003 of the 2008 Farm Bill established a loan guarantee program within USDA Rural Development for the development and construction of commercial-scale biorefineries and the retrofitting of existing biorefineries to produce advanced biofuels. Proposed rules for the program were issued in April 2010 (the “Proposed Rules”) and final rules are expected to be released soon.

While the final rules are pending, the program has been accepting and evaluating applications under a Notice of Funding Availability issued in May 2010 and an Extension of 2009 Funding Availability issued in March 2010. In addition, the first loan guarantee was closed under this program in March 2010, in connection with \$80 million of financing for Range Fuels’ cellulosic biorefinery project.

Role of Eligible Lenders. The program provides guarantees for loans made by eligible lenders. To be considered an eligible lender under the Proposed Rules, the entity extending the loan would be required to (a) be a regulated or supervised lender (i.e., be subject to credit examination or supervision by a federal or state agency that supervises or regulates credit institutions); (b) satisfy specified minimum capital requirements; and (c) have adequate experience in making, securing, servicing, and collecting loans similar to those offered under the program, as judged by the USDA. As is the case in USDA’s B&I and REAP loan guarantee programs, the relevant lender would have significant responsibility for developing the loan terms and evaluating the collateral package. In addition, under the Proposed Rules, the original lenders would be required to retain at least 50 percent of the unguaranteed portion throughout the term of the loan.

As described in our accompanying WSGR Alert, the Proposed Rules have several features that limit their appeal to private sector lenders, including the fact that the Proposed Rules seem designed for direct lending rather than bond placements through financial intermediaries. However, the Range Fuels transaction, in which AgSouth Farm Credit and Silicon Valley Bank participated as lenders and for which Morgan Keegan placed a portion of the transaction with bond market participants, provides an example of how more flexibility in the rules could facilitate increased interest in the program. It is hoped that the final rules will allow for improved private sector participation by, among other things, (a) clarifying the possible roles of both lenders and trustees for bondholders; (b) reducing the retention requirements for the unguaranteed portion of the loan; (c) increasing the permissible interest rate spread between guaranteed and unguaranteed portions; and (d) increasing the percentage of loans that can be guaranteed.



Loan Guarantee Amounts. USDA is authorized to guarantee loans of up to \$250 million that represent no more than 80 percent of total project costs. There is no minimum loan size. The percentage of the loan that is guaranteed varies depending upon the size of the loan, and, under the Proposed Rules, the maximum guarantee percentage would be:

- 80 percent guarantee of loan amounts up to \$80 million;
- 70 percent guarantee of loan amounts greater than \$80 million but less than \$125 million; and
- 60 percent guarantee of loan amounts from \$125 million to \$250 million.

The 2008 Farm Bill contemplated that guarantees could be as large as 90 percent of the loan amount, and it is possible that the maximum guarantee percentage could be increased in the final rule.


Eligible Projects. To be eligible, a project must:

- Be located in a rural area (population less than 50,000 and not in an urbanized area; USDA has proposed relaxing this requirement to include areas that are “rural in character”);
- Involve a commercial-scale biorefinery for the production of advanced biofuels (i.e., biofuels not derived from corn kernel starch);
- Use a technology that has been demonstrated to have technical and economic potential for commercial application in a biorefinery that produces an advanced biofuel;
- Derive more than 70 percent of revenues from the sale of advanced biofuels (under the Proposed Rule); and
- Have a cash equity injection of not less than 20 percent of the eligible project costs, although the fair market value of equity in real property pledged as collateral for the loan could be substituted to meet the cash equity requirement (under the Proposed Rule).

USDA gives preference to projects involving first-of-a-kind technology deployed at the commercial scale.

Eligible Project Costs. Guaranteed loans may be used for the following project costs:

- Purchase and installation of equipment (new, refurbished, or remanufactured), except agricultural tillage equipment, used equipment, and vehicles
- Construction or retrofitting, except residential
- Permit and license fees
- Professional service fees, except for application preparation
- Feasibility studies

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- Business plans
 - Working capital
 - Land acquisition
 - Cost of financing, excluding guarantee and renewal fees

Eligible Borrowers. A wide range of entities are eligible for the loan guarantee, including individuals, corporations, farm cooperatives, agricultural producer associations, rural electric cooperatives, public power entities, institutions of higher learning, national laboratories, Indian tribes, and units of state or local government. Under the Proposed Rules, entities would be required to be at least 51 percent owned by U.S. citizens or permanent U.S. residents (publicly traded U.S. corporations would be presumed to meet this requirement). Comments have also focused on adjusting this requirement.

Effect of Other Federal Funding. The amount of guaranteed loan will be reduced by the amount of other direct federal funding that the eligible borrower receives for the same project. Project financial assistance from state and local governments does not reduce the loan guarantee amount.


Other Key Terms and Conditions. The length of a guaranteed loan may be up to 20 years or 85 percent of the useful life of the project, whichever is shorter. The loan-to-value ratio may not exceed 1.0. The interest rate of the guaranteed loan may be fixed or variable and is negotiated between the lender and the borrower. The guaranteed and unguaranteed portions of the loan may have different interest rates, but, under the Proposed Rules, the blended rate on the entire guaranteed loan may not exceed the rate on the guaranteed portion by more than one (1) percentage point. It is expected that this provision may be adjusted in the final rules.

Interest must be paid at least annually as part of a full amortization schedule. Principal payments may be deferred for up to three years from the date of the Promissory Note and must be paid at least annually thereafter.

Under the Proposed Rules, the entire loan must be secured by the same collateral, and USDA would be granted a first priority lien on all collateral necessary to run the project in the event of the borrower's default. This provision generated significant public comments and may be modified in the final rules.

Lenders are required to pay a guarantee fee of between 1 and 2 percent of the guaranteed loan amount at the time the Loan Note Guarantee is requested and an annual renewal fee of between 0.5 and 1 percent of the unpaid principal balance for as long as the guaranteed loan is outstanding and payable during the construction period. Such fees may be passed on to the borrower.

Application and Approval Process. Requests for the loan guarantees have previously been accepted by USDA only during competitive application rounds lasting two to three months.



USDA has proposed two application periods for 2011—the first ending on March 1 and the second ending on June 1. Applications submitted during the first round would also be eligible for consideration during the second round.

An application is submitted to USDA Rural Development by the lender with significant input from the borrowers. Required elements of the application include, among other things:

- A feasibility study of the project;
- A business plan (if not incorporated into the feasibility study);
- Appraisals, accompanied by a copy of a Phase I Environmental Site Assessment (ESA) in accordance with ASTM standards; and
- Credit reports on the borrower and each partner, officer, director, key employee, and shareholder owning a 20 percent or more interest in the borrower, unless the borrower is listed on a major stock exchange. Under USDA's Proposed Rules, loans of \$100 million or more would require an independent credit risk analysis from a nationally recognized rating agency.

Once submitted to USDA, an application is evaluated by a panel of reviewers, including Rural Development field staff (for eligibility and financial, technical, and environmental analysis) and U.S. Department of Energy (DOE) staff (for technical merit evaluation). Applications are also subject to NEPA review by USDA staff as a Class II Environmental Assessment (EA), unless the agency deems a different level of environmental review more appropriate for a given project. USDA advises prospective borrowers to contact the agency to determine environmental requirements as soon as practicable after the borrowers decide to pursue any form of financial assistance from the agency.

Fiscal Year 2011 Funding: USDA's 2011 Budget Summary and Annual Performance Plan anticipates that the funding available for this program in the coming year will support over \$950 million in loan guarantees. Funding will be made available with the issuance of the program's final rules, which is expected by the end of 2010.

Overview of USDA Payments to Eligible Advanced Biofuel Producers (Section 9005 of the Food, Conservation, and Energy Act of 2008)

Section 9005 of the 2008 Farm Bill established a payment program for producers of advanced biofuels to support existing advanced biofuel production and to encourage new production of advanced biofuels. Proposed rules for the program were issued in June 2010 (the “Proposed Rules”) and final rules are expected by the end of 2010.

Under the program, USDA enters into contracts to provide payments to producers of biofuels produced at U.S. biorefineries from renewable biomass other than corn kernel starch. This payment is in addition to the sales price received by the biofuel producer.


Eligible Applicants. Applicants must be individuals or legal entities, such as corporations, companies, foundations, associations, labor organizations, partnerships, and non-profit entities, that produce advanced biofuel. Applicants may be located in non-rural locations and may include foreign-owned producers.

Eligible Advanced Biofuels. Advanced biofuels eligible for payments include:

- Biofuel derived from cellulose, hemicellulose, or lignin;
- Biofuel derived from sugar or starch (other than corn kernel starch);
- Biofuel derived from waste material, including crop residue, other vegetative waste material, animal waste, food waste, and yard waste;
- Diesel-equivalent fuel derived from renewable biomass such as vegetable oil and animal fat;
- Biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass;
- Butanol or other alcohols produced through the conversion of organic matter from renewable biomass; and
- Other fuel derived from cellulosic biomass.

Payment Amounts. The payment amounts vary annually, depending upon the size of the program’s appropriated budget, which is divided on a pro rata basis among successful applicants based upon (a) the actual amounts produced by each producer during the year; (b) the size of the producer (aggregating all biorefineries at least 51 percent owned by the producer); and (c) the extent to which a producer’s advanced biofuel output represents base or incremental production.

The program pays producers two rates for their production—one tied to a producer’s base production level and a higher rate for a producer’s incremental production beyond the base



level. “Base production” is defined as a facility’s existing level of production; any subsequent production that is in excess of the base amount is considered to be incremental. Previously, the payment rate for incremental production was set three times (3x) higher than the rate for base production. Under USDA’s Proposed Rules, the payment rate for incremental production would increase to five times (5x) the rate for base production. In FY 2010, \$40 million in budget authority was available for the program.


In March 2010, 123 advanced biofuels producers received payments under the program. The payment amounts ranged from a low of \$558 for Texas Green Manufacturing LLC to a high of \$1.34 million for Pinal Energy LLC.

Application and Approval Process. An advanced biofuel producer seeking to participate in the program must submit an application to the USDA Rural Energy Coordinator for the state where the eligible biorefinery is located during designated enrollment periods. The application requires information on:

- The applicant;
- The applicant’s biorefineries at which the advanced biofuels are produced, including location, quantities produced, and a description of the business;
- The types and quantities of renewable biomass feedstock being used to produce the advanced biofuels; and
- The amount of eligible advanced biofuels produced at each biorefinery in the 12 months prior to the first day of the sign-up period for the fiscal year for which the annual application is being submitted.

Applicants are also required to submit documentation to support the amount of eligible advanced biofuels reported in the form and to certify the information provided, including that the advanced biofuels are eligible advanced biofuels and that the renewable biomass feedstock used to produce the advanced biofuels are eligible biomass feedstock. Applicants must submit authoritative evidence documenting production of advanced biofuels, and the eligibility of the advanced biofuels.

The information contained in the application is used by USDA to determine whether the advanced biofuel producer is eligible to participate in the program and whether the advanced biofuel being produced is eligible for payments under the program. Before being accepted into the program, the producer must also furnish all required certifications, as applicable, and provide access to the producer’s records required by USDA to verify compliance with program provisions. The required certifications, which must be completed and provided by an accredited independent third party, depend on the type of biofuel produced. Once an advanced biofuel producer has been approved to participate in the program, the producer and USDA enter into a contractual agreement. All contracts are reviewed at least annually to ensure compliance with the contract and ensure the integrity of the program.



Fiscal Year 2011 Funding. Secretary Vilsack announced on October 21, 2010, that up to \$281.5 million remains available under this program (\$85 million of which is mandatory FY 2011 funding required by the 2008 Farm Bill). Funding will be made available with the issuance of the program's final rules, which is expected by the end of 2010.

Overview of the USDA Rural Energy for America Program (REAP) (Section 9007 of the Food, Conservation, and Energy Act of 2008)

USDA administers the Rural Energy for America Program (REAP) to help rural small businesses and agricultural producers purchase and install renewable energy systems and energy efficiency improvements. Also known as Section 9007 of the 2008 Farm Bill (previously Section 9006 of the 2002 Farm Bill), the program is composed of several types of grants and guaranteed loan programs. These include:


- Loan guarantees and grants for the development and construction of renewable energy systems;
- Loan guarantees and grants for energy efficiency improvement projects;
- Grants for conducting energy audits;
- Grants for conducting renewable energy development assistance; and
- Grants for conducting renewable energy feasibility studies.

Loan Guarantee Amounts. The loan guarantees under the program support financing for renewable energy systems and energy efficiency improvements and require the participation of an eligible lender. Loans eligible for a guarantee can range in size from \$5,000 to \$25 million (capped at 75 percent of total eligible project costs). The maximum percentage of the loan that can be guaranteed varies depending upon the size of the loan, as follows:

- 85 percent guarantee of loan amounts up to \$600,000
- 80 percent guarantee of loan amounts greater than \$600,000 but less than \$5 million
- 70 percent guarantee of loan amounts from \$5 million to \$10 million
- 60 percent guarantee of loan amounts from \$10 million to \$25 million

Eligible Lenders. Federal or state chartered banks, Farm Credit System institutions, savings and loan associations, credit unions, insurance companies, and the National Rural Utilities Cooperative Finance Corporation are automatically eligible lenders, while other types of lenders must pre-qualify with USDA. The relevant eligible lender determines the loan's terms (within the program guidelines), disburses the funds, and must hold at least 5 percent of the unguaranteed portion for the life of the loan. The guaranteed portion of the loan can be resold in the secondary market, and interests in the remaining 95 percent of the unguaranteed portion can be shared through participations (with the designated lender retaining title to the notes but not the economic interest in them).

Grant Amounts. Grant requests may not exceed 25 percent of eligible project costs. The minimum grant request for renewable energy systems is \$2,500, and for renewable energy



improvements is \$1,500. For renewable energy projects, the maximum grant request is \$500,000, and all grant requests over \$50,000 require a feasibility study prepared by a qualified independent consultant. For energy efficiency projects, the maximum grant request is \$250,000 and all projects with total costs over \$50,000 require an energy audit prepared by a qualified independent consultant. Eligible projects may combine grant and loan guarantee assistance under the program, but total REAP assistance cannot exceed 75 percent of the total project cost. An accompanying REAP guaranteed loan application may increase the likelihood of receiving a REAP grant.

Eligible Projects. Eligible projects include renewable energy and energy efficiency improvement projects. Renewable energy projects include those that derive energy from wind, solar, biomass, geothermal, ocean, or hydroelectric sources or that derive hydrogen from biomass or water using one of the previously stated energy sources. The term “biomass” includes any organic material that is available on a renewable or recurring basis, such as: agricultural crops, trees grown for energy production, wood waste and wood residues, plants (including aquatic plants and grasses), residues, fibers, animal wastes and other waste materials, and fats, oils, and greases (including those that are recycled). The term “biomass” does not include paper that is commonly recycled or un-segregated solid waste.


All eligible projects must be located in a rural area (population less than 50,000 and not in an urbanized area) and use a pre-commercial or commercially available, replicable, and feasible technology. The applicant must be the owner of the project and control the project’s operation and maintenance. Applicants must also demonstrate that the project has sufficient revenues to provide for operation and maintenance.

In addition, to qualify for a loan guarantee, the borrower must show that the project has received equity contributions of at least 15 percent for loans up to \$600,000 or 25 percent for loans greater than \$600,000. Rather than requiring tangible balance sheet equity (as required under USDA’s B&I program), the REAP program’s minimum equity requirements are measured based on either cash funds contributed (which may include federal grant funds) or the fair market value of equity in real estate pledged as collateral for the loan, based on a recent appraisal that meets USDA standards.

Preference is given to grant applications from very small businesses (i.e., those with fewer than 15 employees and less than \$1 million in annual receipts) and to those involving commercially available technologies. Pre-commercial technologies may qualify, but require substantially more documentation. Experimental or research and development projects are not eligible.

Eligible Project Costs. All eligible project costs must be an integral and necessary part of the total project. The following is a list of those eligible uses:

- Post-application purchase and installation of equipment, except agricultural tillage equipment and vehicles

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- Post-application construction or project improvements, except residential
 - Energy audits or assessments
 - Permit and license fees
 - Professional service fees, except for application preparation
 - Feasibility studies and business plans
 - Retrofitting
 - Working capital
 - For energy efficiency projects, construction of a new facility only when the facility is used for the same purpose, is approximately the same size, and based on the energy audit will provide more energy savings than would improving an existing facility. Only costs identified in the energy audit are allowed.


Eligible Applicants. Farmers, ranchers, and rural small businesses with a demonstrated financial need are eligible to apply for funding. Farmers and ranchers must directly engage in the production of agricultural products and obtain at least 50 percent of their gross income from their agriculture business. Rural small businesses must meet the Small Business Definition of a small business, based on total annual receipts, and must be headquartered in a rural area. Non-profit organizations, Indian tribes, and public entities are excluded. Applicants must be at least 51 percent owned by U.S. citizens or permanent residents of the U.S.

Other Key Terms and Conditions. The length of a guaranteed loan may be up to 30 years for real estate, 20 years for equipment (or the length of its useful life, if shorter), and 7 years for working capital. The interest rate of the guaranteed loan may be fixed or variable and is negotiated between the lender and the borrower.

Interest must be paid at least annually, and principal payments may be deferred until the project is operational. Lenders are required to pay a one-time guarantee fee of 1 percent and an annual servicing fee of 0.25 percent for as long as the guaranteed loan is outstanding and payable. Such fees may be passed on to the borrower.

Guaranteed loans are required to be fully secured based on a sound loan-to-value policy, including a feasibility analysis in which stronger feasibility justifies relatively higher loans-to-value. Designated lenders have the primary responsibility to determine that the loan is fully secured. Value assigned to collateral will typically reflect 80 percent of the appraised value of real estate and 70 percent of the appraised value of machinery and equipment. Although guidance for loans under the program states that power contracts (i.e., power purchase agreements) are not to be assigned a value as collateral, such contracts would enhance feasibility. Overall, lenders can be expected to judge the size of loan they are willing to make based both on the value of assets pledged as collateral and the expected cash flow from the project that will support repayment.

The guaranteed and unguaranteed portions of a loan must be secured by the same collateral package, with equal lien priority. The program contemplates that lenders and USDA may



consider providing loans that are junior to or on par with pre-existing loans if the collateral is sufficient for both the prior loan and the REAP guaranteed loan.

Application and Approval Process. Applications are submitted to the USDA State Rural Development Office where the project is located or, in the case of a rural small business, where the borrower is headquartered. For loan guarantees, the application is submitted by the lender, working closely with the borrower.

All project proposals must provide details about the qualifications of the project team, energy resources, the project design and engineering, any necessary agreements or permits, and financial feasibility. All proposed projects must also include detailed information about the project schedule, equipment procurement and installation, operations and maintenance, and decommissioning. Projects to be interconnected with an electric utility must have an interconnection agreement (or letter of intent) or power purchase agreement at the time of application. Personal guarantees are required from all proprietors, partners (except limited partners), or major shareholders (i.e., those with a 20 percent or more interest in the applicant). Demonstrated financial need and inability to get credit elsewhere is not a requirement.

Any project receiving federal funds is subject to the environmental requirements of the National Environmental Policy Act (NEPA). USDA will perform the NEPA review, but applicants will need to provide environmental information about the project as detailed in the Notice of Funds Availability. USDA may contact the applicant after preliminary review if more information is needed. If the applicant anticipates any potential environmental or public concerns with their project, these concerns should be discussed with the USDA State Energy Coordinator prior to submitting an application.

Grants are awarded twice a year via a national competition. USDA only accepts applications during certain periods. Simplified applications are allowed for projects seeking grants up to \$50,000 and with total project costs up to \$200,000, and only for proposals using commercially available technologies.

Renewable energy project applications are selected based on the following evaluation criteria: quantity of energy produced, environmental benefits, commercial availability, cost effectiveness, matching funds, and project management. Energy efficiency projects are scored on the following criteria: energy savings, cost effectiveness, and matching funds. Funding will officially be made available through a Notice of Funding Availability, but applications are generally accepted by USDA state offices on a rolling basis.

Fiscal Year 2011 Funding: USDA's 2011 Budget Summary and Annual Performance Plan anticipates \$39 million in FY 2011 for loan guarantee assistance (to support \$85 million in guaranteed loans) and \$70 million for grant funding, although these amounts could change as Congress finalizes appropriations for FY 2011.

Overview of the USDA Biomass Research & Development Initiative Grant Program (Section 9008 of the Food, Conservation, and Energy Act of 2008)

Section 9008 of the 2008 Farm Bill reauthorized the Biomass Research & Development Initiative (BRDI), which offers a competitive grants program administered jointly by USDA and the U.S. Department of Energy (DOE).

Eligible Research Projects. In FY 2010, BRDI solicited applications for grants to fund research projects that include all three of the following technical areas identified in the 2008 Farm Bill as research priorities:


- Development of feedstocks;
- Biofuels and biobased products development; and
- Biofuels development analysis.

The intent of such research integration is to encourage a collaborative problem-solving approach to all studies funded under BRDI, facilitate formation of consortia, identify and address knowledge gaps, and accelerate the application of science and engineering for the production of sustainable biofuels, bioenergy, and biobased products. Eligible projects may extend up to four years.

Eligible Applicants. Entities eligible to apply for the research grants include:

- Private sector entities;
- Institutions of higher education;
- National laboratories;
- Federal research agencies;
- State research agencies;
- Non-profit organizations; and
- A consortium of two or more of the above entities.

Cost Sharing. Projects must include cost sharing of at least 20 percent of the total allowable costs for research or development projects and at least 50 percent of the total allowable costs for demonstration or commercial projects. The cost share must come from non-federal sources unless otherwise allowed by law. To ensure proper cost share determinations in their pre-applications, applicants are required to identify whether the proposed project is a research, development, demonstration, or commercial project.



Application Process. Applications must be submitted in response to a Notice of Funding Availability (NOFA). The NOFA for FY 2011 has not yet been issued. For FY 2010, the NOFA was issued in May 2010. The application includes a pre-application submission that is used by BRDI to ensure that applicants address the required technical areas. Based on the results of the pre-application review, a select number of applicants are invited to submit a full application. Applicants are encouraged to develop partnerships with other entities, as needed, to ensure that all required technical areas are adequately addressed. In making their project selections and awards, USDA-NIFA and DOE employ their own policy factors. Applicants selected by DOE will work with DOE only, and will be subject to DOE's standard processes in accordance with applicable legislation, regulations, and procedures. Applicants selected by USDA-NIFA will work with USDA-NIFA only, and will be subject to USDA-NIFA's standard processes in accordance with applicable legislation, regulations, and procedures.

Funding Amounts. USDA's 2011 Budget Summary and Annual Performance Plan anticipates \$30 million for the program in FY 2011. Award sizes generally range in size from \$3 million to \$7 million.

Overview of the USDA Biomass Crop Assistance Program (BCAP) (Section 9011 of the Food, Conservation, and Energy Act of 2008)

Section 9011 of the 2008 Farm Bill established the Biomass Crop Assistance Program (BCAP) with the purpose of:

- Supporting the establishment and production of eligible crops for conversion to bioenergy in selected BCAP project areas; and
- Assisting agricultural and forest land owners and operators with the collection, harvest, storage, and transportation of eligible material for use in a biomass conversion facility.

BCAP provides two broad categories of payments:

- Establishment and annual payments to producers who enter into contracts with the Commodity Credit Corporation (CCC) to produce eligible biomass crops within selected BCAP project areas; and
- Matching payments for the delivery of eligible material to qualified biomass conversion facilities by eligible material owners.

Establishment and Annual Payments

Eligible Applicants. Applicants for establishment and annual payments must be persons or legal entities with eligible land that is located within a project area designated by CCC. Such project areas are selected by CCC upon application by the project sponsor. There are no restrictions on who is eligible to be a project sponsor. An application to be named a BCAP project area must include: (a) a description of the eligible land and eligible crops of each producer that will participate in the project; (b) a letter of commitment from a biomass conversion facility stating that the facility will use eligible crops intended to be produced in the project area; and (c) information demonstrating that the biomass conversion facility has sufficient equity available to operate by the harvest of a crop in the project area if the facility is not operational at the time the project area proposal is submitted.

Eligible Biomass Crops. Eligible crops for BCAP contracts are crops of renewable biomass, as defined by the 2008 Farm Bill, with the following exclusions:

- Any crops eligible to receive payments under Title I of the 2008 Farm Bill (e.g., corn, wheat, cotton, sugar, etc., although residue from such crops may be used in limited quantities); or

- Any plant that is invasive or noxious, or has the potential to become invasive or noxious.

Payment Amounts. Establishment payments will be made for up to 75 percent of the cost of establishing perennial crops, including (a) the cost of seed and stock; (b) the cost of planting the crop; (c) for non-industrial forest land, the cost of site preparation and tree planting; and (d) other establishment activities such as site preparation for non-tree planting and supplemental or temporary irrigation.

Annual payments are calculated on a per acre basis using market-based rental rates, as determined by CCC, and are limited to no longer than five years for annual and perennial herbaceous eligible crops, and no longer than 15 years for woody perennial eligible crops. The implementation of a conservation plan, forest stewardship, or equivalent plan is a requirement of BCAP contracts.


Application and Approval Process. Applications for establishment and annual payment contracts may be submitted to CCC on a continuous basis. CCC may, in its sole discretion, accept or reject contracts for reasons it determines are appropriate to accomplish the purposes of BCAP.

Matching Payments

Eligible Applicants. Any owner of eligible materials may apply, whether that owner produces the eligible crop or has the legal right to collect or harvest it.

Eligible Biomass Material. Eligible material for BCAP payments consists of renewable biomass, as defined in the 2008 Farm Bill, with certain exclusions. Eligible material includes:

- Materials, pre-commercial thinnings, or invasive species from National Forest System land and public lands that:
 - Are byproducts of preventive treatments that are removed to reduce hazardous fuels, to reduce or contain disease or insect infestation, or to restore ecosystem health;
 - Would not otherwise be used for higher-value products; and
 - Are harvested in accordance with applicable law and land management plans and the requirements for old-growth maintenance, restoration, and management direction of Section 102 (e)(2), (3), and (4) of the Healthy Forests Restoration Act of 2003 (16 U.S.C. 6512) and large-tree retention of subsection (f); or
- Any organic matter that is available on a renewable or recurring basis from non-federal land or land belonging to an Indian or Indian tribe that is held in trust by the



United States or subject to a restriction against alienation imposed by the United States, including:

- Renewable plant material, including feed grains, other agricultural commodities, and other plants and trees; and
- Waste material, including crop residue and other vegetative waste material (including wood waste and wood residues).

Eligible material does not include:

- Harvested grains, fiber, or other commodities eligible to receive payments under Title I of the 2008 Farm Bill;
- Animal waste and animal waste byproducts including fats, oils, greases, and manure;
- Food waste and yard waste; or
- Algae.

Payment Amounts. BCAP provides matching payments to eligible material owners at a rate of \$1 for each \$1 per dry ton paid by a qualified biomass conversion facility, up to a maximum of \$45 per dry ton. Matching payments may be made to eligible material owners for a maximum of two years.

Application and Approval Process. Eligible material owners seeking matching payments for the collection, harvest, storage, or transportation of eligible material must apply at a Farm Service Agency (FSA) county office and receive approval for that application before delivering the eligible material to the qualified biomass conversion facility. The qualified biomass conversion facility then issues a receipt or invoice on the date of delivery to the eligible material owner, and the receipt provides the basis for calculating the matching payment when submitted to FSA along with other required documentation.

Fiscal Year 2011 Funding. USDA's 2011 Budget Summary and Annual Performance Plan anticipates \$479 million in FY 2011 for the two BCAP payment programs combined.

Overview of the USDA Business & Industry Guaranteed Loan Program (B&I)

The U.S. Department of Agriculture (USDA) administers the Business and Industry (B&I) Guaranteed Loan Program to help establish, expand, or modernize rural businesses. The B&I Guaranteed Loan Program is a general purpose economic development program that can be used for a wide range of projects, including renewable energy projects.

Specifically, the B&I Guaranteed Loan Program guarantees loans for manufacturers, wholesalers, retailers, and other businesses that will:


- Provide employment;
- Improve the economic or environmental climate;
- Promote the conservation, development, and use of water for aquaculture; or
- Reduce reliance on nonrenewable energy resources by encouraging the development and construction of solar energy systems and other renewable energy systems (including wind energy systems, geothermal energy systems, and anaerobic digesters for the purpose of energy generation).

Loan Guarantee Amounts. Loans eligible for a guarantee can range in size up to \$25 million. Loans up to \$40 million can also be guaranteed if the borrower is a cooperative organization, as defined below. Multiple loans from the B&I program can be combined, as can B&I and REAP loans, up to \$50 million, and \$65 million for cooperative organizations. The percentage of the loan that is guaranteed varies depending upon the size of the loan, as follows:

- 80 percent guarantee of loan amounts up to and including \$5 million;
- 70 percent guarantee of loan amounts greater than \$5 million up to and including \$10 million; and
- 60 percent guarantee of loan amounts greater than \$10 million.

The 2008 Farm Bill also provides for 90 percent guarantees for high-priority projects under \$10 million; however, USDA exercises that authority infrequently.

Designated Lender Program. The B&I Program requires the participation of an eligible lender. Federal or state chartered banks, Farm Credit System institutions, savings and loan associations, credit unions, insurance companies, and the National Rural Utilities Cooperative Finance Corporation are automatically eligible lenders, while other types of lenders must pre-qualify with USDA. The relevant eligible lender determines the loan's terms (within the program guidelines), disburses the funds, and must hold at least 5 percent of the unguaranteed portion for the life of the loan. The guaranteed portion of the loan can be resold in the secondary



market and interests in the remaining 95 percent of the unguaranteed portion can be shared through participations (with the designated lender retaining title to the notes but not the economic interest in them).

The guaranteed and unguaranteed portions of the loan are to be secured by the same collateral package, with equal lien priority. The program contemplates that lenders and USDA may consider providing loans that are junior to or on par with pre-existing loans if the collateral is sufficient for both the prior loan and the B&I guaranteed loans.


Eligible Projects. Eligible projects include:

- Business and industrial acquisitions when the loan will keep the business from closing, prevent the loss of employment opportunities, or provide expanded job opportunities;
- Business conversion, enlargement, repair, modernization, or development;
- Purchase and development of land, easements, rights-of-way, buildings, or facilities;
- Purchase of equipment, leasehold improvements, machinery, supplies, or inventory; and
- Financing of renewable-energy-related projects.

Accordingly, projects that propose any of the above to provide employment, improve the economic or environmental climate, promote conservation, or reduce reliance on nonrenewable energy resources are eligible. This can include renewable energy projects in virtually any sector, including solar, biomass, biopower, and electric vehicles, among others, as long as projects progress and produce according to plan and meet other sector-specific requirements. Commercial-stage biomass fuel or biogas-to-energy projects must have completed two operating cycles and projects that produce steam or electricity must be interconnected with the purchaser of the output and meet other program-specified criteria. For all other energy-related projects, USDA will make eligibility determinations on a case-by-case basis.

All eligible projects must be located in a rural area (population less than 50,000 and not in an urbanized area) and use a pre-commercial or commercially available, replicable, and feasible technology. While the project must be creditworthy and possess collateral sufficient to secure the loan, there is no owner-occupancy requirement such as is found in other USDA programs.

Guaranteed Loan Requirements. Guaranteed loans are required to be fully secured based on a sound loan-to-value policy, including a feasibility analysis in which stronger feasibility justifies relatively higher loan-to-value amounts. Designated lenders have the primary responsibility to determine that the loan is fully secured. Overall, lenders can be expected to judge the size of loan they are willing to make based both on the value of assets pledged as collateral and the expected cash flow from the project that will support repayment. The program also states that managerial ability can be taken into account to overcome collateral deficiency.



In addition, to qualify for a loan guarantee, the borrower must show that the project has a tangible balance sheet equity of at least 10 percent for loans to existing businesses, 20 percent for start-ups, and 25-40 percent for energy projects. Rather than requiring cash equity (as the REAP guaranteed loan program requires), the B&I program's equity requirements are measured based on tangible balance sheet equity as determined from financial statements prepared in accordance with Generally Accepted Accounting Principles (GAAP).

Eligible Project Costs. All eligible project costs must be an integral and necessary part of the total project. The following is a list of those eligible uses:


- Businesses and industrial acquisitions;
- Purchase of land, machinery, and equipment;
- Construction, enlargement, or modernization;
- Eligible fees and costs;
- Educational or training facilities;
- Tourist facilities;
- Pollution control or abatement ;
- Working capital; and
- Refinancing when necessary to improve cash flow and create new or save existing jobs.

Eligible Borrowers. Cooperative organizations, corporations, partnerships, or other profit and non-profit organizations are eligible. Indian tribes or other federally recognized tribal groups, public bodies, or individual persons are also eligible. A “cooperative organization” is defined as a non-chartered entity that operates as a cooperative, owned and operated for the benefit of its members and distributes dividends and assets to them. Individual borrowers must be U.S. citizens, and corporations must be at least 51 percent owned by U.S. citizens or permanent residents of the U.S.

Other Key Terms and Conditions. The length of a guaranteed loan may be up to 30 years for real estate, 15 years for equipment (or the length of its useful life, if shorter), and 7 years for working capital. The interest rate of the guaranteed loan may be fixed or variable and is negotiated between the lender and the borrower.

Interest must be paid at least annually, and principal payments may be deferred until the project is operational. Lenders are required to pay a one-time guarantee fee of 2 percent for loans made through the end of 2010 and 3 percent for loans made in and after 2011, and an annual servicing fee of 0.25 percent for as long as the guaranteed loan is outstanding and payable. Such fees may be passed on to the borrower.

Application and Approval Process. Application materials are prepared by borrowers, in coordination with the eligible lenders, and are submitted by eligible lenders to the USDA State Rural Development Office where the project is located. All applications must provide a business



plan, costs estimates and forecasts of contingency funds to cover expected and unexpected project costs, financial statements for the project and applicant, and, in some instances, a technical report and independent feasibility study. Personal guarantees are generally required from all proprietors, partners, and major shareholders (i.e., those with a 20 percent or more interest in the applicant), but exceptions may be granted in some instances. Demonstrated financial need and inability to get credit elsewhere is NOT a requirement.

Any project receiving federal funds is subject to the environmental requirements of the National Environmental Policy Act (NEPA). USDA will perform the NEPA review, but applicants will need to provide environmental information about the project. USDA may contact the applicant after preliminary review if more information is needed. Due to the time-intensive nature of this process, borrowers should initiate the environmental review process as early as possible.

Applications are generally approved if they meet the program requirements. Applicants meeting the criteria outlined above, sufficient to provide a reasonable assurance of repayment, are likely to be awarded loan guarantees. In instances where the program cannot award loans to all eligible applicants, priorities will be assigned to applicants based on a point system. Points are allocated based upon location of the project, business type, community support, jobs created, and other factors.

Fiscal Year 2011 Funding: USDA's 2011 Budget Summary and Annual Performance Plan anticipates \$40 million in funding in FY 2011 to support over \$940 million in B&I guaranteed loans, roughly the same as the 2010 level. Funding is available on a rolling basis, but applicants are encouraged to begin the application process early.

Overview of the USDA Rural Utilities Service Guaranteed Loan Program

The Rural Electrification Act of 1936, as amended, authorizes four loan and loan guarantee programs within the USDA Rural Utilities Service (RUS): (a) a Hardship Loan Program, (b) a Municipal Loan Program, (c) a Treasury Loan Program, and (d) a Guaranteed Loan Program. In fiscal year 2010, Congress appropriated funds only for the Hardship Loan Program and the Guaranteed Loan Program.

Under the Hardship Loan Program, RUS may provide direct loans at a fixed interest rate of 5 percent to retail providers for electric distribution facilities in rural areas. This was a \$100 million program in fiscal year 2010.


The Guaranteed Loan Program is available to retail and power supply providers to finance distribution, transmission, and generation projects, including renewable energy projects such as solar, wind, hydropower, biomass, and geothermal projects. RUS was authorized to provide \$6.5 billion in guaranteed loans in fiscal year 2010 and is expected to receive an authorization to provide at least \$4 billion in guaranteed loans in fiscal year 2011.

As described below, the Guaranteed Loan Program is designed to finance facilities serving rural utilities and cooperatives and is accessible to private project developers if they establish partnerships with utilities that primarily serve rural communities.

Eligible Applicants in Guaranteed Loan Program

The Guaranteed Loan Program is available to corporations, states, municipalities, and cooperatives. However, RUS has historically provided loans to “utility systems” that are able to raise rates and pay off loans, as necessary, and RUS continues to favor states, municipalities, and co-ops. Among the rural utilities and cooperatives most recently selected for loan guarantees on November 18, 2010, are Basin Electric Power Cooperative in North Dakota, which was selected for \$153 million in loan guarantees for two wind projects, and Central Virginia Electric Cooperative, which was selected for an \$84 million loan guarantee to finance its partial ownership in two hydroelectric projects in Kentucky.

In cases where RUS guarantees a loan to a private developer that is a corporation or an LLC, the developer typically partners with a rural utility to create a “virtual system” that assures repayment of the loan. To establish this virtual system, the developer generally signs a power purchase agreement with a utility that, among other things, establishes a fixed-charge revenue floor that is equal to at least the principal and interest payments on the loan. In exchange for



agreeing to such a revenue floor, many utilities require a high degree of control over the project.

Project Eligibility and Project Costs

Eligibility for the Guaranteed Loan Program is based on the location of the beneficiaries of the power, not the location of the project. Accordingly, a project may qualify under the Guaranteed Loan Program even if it is located in a non-rural area, so long as the beneficiaries of the power are in a rural area (generally areas with a population under 20,000).

If a utility serves a combination of rural and non-rural areas, the percentage of project costs that could be supported by RUS may not exceed the percentage of the utility's customers that are in rural areas. For example, if a project sells power to a utility that delivers 60 percent of its power to rural areas, the RUS would guarantee a loan up to 60 percent of the project costs.

Application Process and Financing Structure

RUS accepts rolling applications for the Guaranteed Loan Program. As a first step in the application process, applicants submit an executive summary of the proposed project to the RUS General Field Representative in the state of the project.

RUS financing typically consists of a loan issued by the Federal Financing Bank and a 100 percent guarantee of that loan by RUS. RUS generally does not provide guarantees for construction loans, but RUS-guaranteed loans may be used to take out construction loans provided by an institutional lender. In such a situation, RUS would issue an "obligation letter" at the time of closing of the construction loan that provides that the RUS-guaranteed loan could take out the construction loan at a specified time following construction.

RUS generally requires an equity commitment of at least 25 percent of project costs, meaning that up to 75 percent of project costs may be financed with an RUS-guaranteed loan. However, unless a utility delivers at least 75 percent of its power to rural areas, a project would need additional equity or other sources of debt, because the percentage of project costs financed by the RUS-guaranteed loan may not exceed the percentage of the utility's customers in rural areas.

For RUS-guaranteed loans issued by the Federal Financing Bank, interest rates are fixed at Treasuries plus 12.5 basis points. The term of the guaranteed loan may be no longer than the expected useful life of the facilities financed, up to 35 years.