Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program (9003 Program)

Algae Biomass Summit

Welcome
9003 Program Purpose

Assists emerging technologies:

- advanced biofuels
- renewable chemicals
- biobased product manufacturing

Provides loan guarantees of up to $250 M
9003 Program Definitions

• Advanced Biofuel is defined as:
  – Fuels produced from renewable biomass (other than corn kernel starch)

• Examples include: biofuels produced from algal biomass, cellulose and waste materials, oil seeds, animal fat; biogas, butanol, diesel equivalent fuel
9003 Program Definitions

• Renewable Chemical is defined as:
  – A monomer, polymer, plastic, formulated product, or chemical substance derived from renewable biomass

• Examples include: organic acids, sorbitol, acetone, pentanes, pentenones
Biobased Products are defined as:
- Commercial or industrial products produced from renewable biomass (other than food or feed)

Examples include: adhesives, plastics, plant/vegetable ink, fibers, paper all derived from a renewable biomass source
In broad terms, two types of projects are eligible:

- Biorefineries
- Biobased Product Manufacturing Facilities
Biorefinery: Renewable Chemicals

The Biorefinery may:

• Sell the Advanced Biofuel that it produces as a Biofuel, Renewable Chemical, or for other non-fuel usage

• Process the Advanced Biofuel into Renewable Chemicals or other Biobased Products, or

• Use the Biofuel as a fuel for heat or power in its processes or to generate electricity
Biobased Product Manufacturing

• Uses Technologically New Commercial Scale processes and equipment

• Converts Renewable Chemicals and other biobased outputs from a Biorefinery (has to produce a biofuel) in end user products.
Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program (9003)

Expands opportunities for:

- New technologies
- New processes
- New products
9003 Program Funding Levels

✓ ~ $500 Million +

✓ Up to 15% of FY 14 and FY 15 mandatory funding is available for Biobased Product Manufacturing

✓ Each 9003 Loan has it’s own subsidy factor
Project Eligibility

Project must be located in the US

No rural area requirement
Borrower Eligibility

- Individuals
- Public and private entities
- State and local governments
- Corporations
- Indian tribes
- Farm Cooperatives, and Farm Cooperative Organizations
- Associations of Agricultural Producers
- National Laboratories
- Institutions of Higher Education
- Public Power entities
Lender Eligibility

- Federal or State chartered bank
- Federally recognized tribes
- Cooperatives
- Farm Credit Bank, or other Farm Credit System Institution
- Credit Unions
- The National Rural Utilities Cooperative Finance Corporation

Lender must demonstrate that it meets the FDIC definition of “Well Capitalized”
9003 Guaranteed Loan Funding

- Provides Guarantees for loans up to $250 million.

- Total Federal participation cannot exceed 80% of the total eligible project.

- 20% of total eligible project costs must be funded from non-Federal sources.
Equity

• Borrower and other principals involved are required to make a significant cash equity contribution. (Equity will be in form of cash)

• The significant cash equity requirement will be determined on a project-by-project basis depending on overall credit.

• If the cash equity requirement is less than the required 20% of total eligible project costs. The remaining match must be funded from non-Federal sources (could be subordinated debt)
Guaranteed Amounts

✓ Maximum $250 Million loan to one borrower
✓ Guarantee Percentages
  80% for loans of $150 Million or Less
  70% for loans >$150MM but less than $200MM
  60% for loans >$200MM up to $250MM

*Loans $150MM or Less could receive 90% guarantee if they meet certain conditions
Application Process

• Letter of Intent
• Two Application Phases
  – Phase 1
  – Phase 2
• Application Deadlines – Submit at Anytime
  – October 1
  – April 1
Application Phase One

- Application Form
- Project Summary
- Financial Statements and Financial Model
- Feasibility Study
- Business Plan
- Priority Scoring Information
Application Scoring

• Applicants with the highest priority scoring will be invited to Phase 2 and will be carried forward one additional review cycle.

• Max Score – 125 Points
Application Phase Two

• The timeline for Phase Two will be driven by the borrower
  – Which means: When the borrower has put together all necessary information for the Lender and Agency to review, the project will proceed to final approval
Application Phase Two

- Final project planning and Technical report,
- Environmental assessment,
- Final evaluation of economic feasibility and technical merit,
- Final lender’s analysis,
- Final credit evaluation and credit rating
Application Phase Two

• Agency and Lender will establish loan terms and conditions prior to issuance of the Conditional Commitment
Project Finance - Based Approach

Project Financing is the financing of infrastructure and industrial projects. Evaluation relies on the development of a project and its cash flow for repayment with project assets as secondary security or collateral.

Contrast this with commercial loans to well established businesses in well established industries secured with business assets.
Website

Programs & Services
Overview
All Programs
For Businesses
For Communities & Nonprofits
For Cooperatives
For Individuals
For Lenders
Services

Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program

Program Status: Open
Letter of Intent Due: September 1, 2015
Federal Register: [pdf]
Stakeholder Forum Video: Webcast

What does this program do?
This program assists in the development, construction, and retrofitting of new and emerging technologies for the development of Advanced Biofuels, Renewable Chemicals, and Biobased Product Manufacturing by providing loan guarantees for up to $250 million.

Who may apply for this program?
Lenders with legal authority; sufficient experience and expertise; and can demonstrate they meet the FDIC definition of "Well Capitalized" at the time of application and issuance of Loan Note Guarantee, including:
- Federal or State chartered bank
- Federally recognized tribes
- Cooperatives
- Farm Credit Bank, or other Farm Credit System institution with federal lending authority

Program Contact
Rural Business & Cooperative Service - Energy Division
(202) 720-0410
EnergyDivision@wdc.usda.gov

Related Programs
- Rural Energy for America Program Energy Audit & Renewable Energy Development Assistance Grants
- Rural Energy for America Program Renewable Energy Systems & Energy Efficiency Improvement Loans & Grants

Print Select your location
Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program (9003)

www.rd.usda.gov/programs-services/biorefinery-assistance-program

EnergyDivision@wdc.usda.gov

202.720.0410

THANK YOU
REAP Stats At a Glance

• $677 Million in REAP assistance since program creation on 10,000+ projects

• Total project costs $3.7 Billion

• 12.3 Million in Metric Tons CO$_2$ Reduced GHG Emissions
### Total Project Awards Per Technology Since Beginning of REAP

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIND</td>
<td>598</td>
</tr>
<tr>
<td>SOLAR</td>
<td>1,910</td>
</tr>
<tr>
<td>HYDROELECTRIC/HYDROPOWER</td>
<td>29</td>
</tr>
<tr>
<td>HYBRID</td>
<td>37</td>
</tr>
<tr>
<td>GEOTHERMAL</td>
<td>283</td>
</tr>
<tr>
<td>FLEXIBLE FUEL PUMP</td>
<td>98</td>
</tr>
<tr>
<td>FEASIBILITY STUDY</td>
<td>198</td>
</tr>
<tr>
<td>ENERGY EFFICIENCY</td>
<td>6,480</td>
</tr>
<tr>
<td>EA/REDA</td>
<td>85</td>
</tr>
<tr>
<td>BIOMASS</td>
<td>471</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>10,187</strong></td>
</tr>
</tbody>
</table>
Rural Energy For America Program (REAP)

Eligible Borrowers:
1. Agricultural producers
2. Rural small businesses

Eligible Projects:
1. Purchase renewable energy systems
2. Make energy efficiency improvements
<table>
<thead>
<tr>
<th>EEI Eligible Project Costs</th>
<th>Ineligible Project Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Equipment:</td>
<td>• Residential energy projects</td>
</tr>
<tr>
<td>• Purchase &amp; installation</td>
<td>• Equipment:</td>
</tr>
<tr>
<td>• Post-application construction &amp; facility improvements</td>
<td>• Farm tillage equipment</td>
</tr>
<tr>
<td>• Professional service fees</td>
<td>• Used equipment</td>
</tr>
<tr>
<td>• Permits &amp; license fees</td>
<td>• Vehicles</td>
</tr>
<tr>
<td>• Retrofitting</td>
<td>• Pre-application construction &amp; facility improvements</td>
</tr>
<tr>
<td>• Working capital, land acquisition (Guarantee ONLY)</td>
<td>• Application preparation or grant writer fees</td>
</tr>
<tr>
<td></td>
<td>• Line of credit</td>
</tr>
<tr>
<td></td>
<td>• Lease payments</td>
</tr>
<tr>
<td></td>
<td>• Payment to the applicant/business owner, beneficiary, or relative</td>
</tr>
</tbody>
</table>
Agricultural Producer

- Individual or Entity directly engaged in the production of agricultural products, including:
  - Crop
  - Livestock
  - Forestry Products
  - Hydroponics
  - Nursery Stock
  - Aquaculture

- The purchase and resale of agricultural products such as greenhouse plants is not considered income derived from the production of agricultural products.
What Does REAP Consider to be a Business?

- A private for-profit entity which includes:
  - Sole proprietorship
  - Partnership
  - Corporation
  - Limited Liability Company (LLC)
Renewable Energy Systems

Wind turbines
Solar panels
Renewable Biomass
  Biofuels-Algae
  Pellets
  Biomass boilers
Anaerobic Digestion
Geothermal
Hydroelectric
Hydrogen
REAP Grant Assistance
Up to 25% of Eligible Project Costs

<table>
<thead>
<tr>
<th>Renewable Energy Systems</th>
<th>Energy Efficiency Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Grant Request</td>
<td>Minimum Grant Request</td>
</tr>
<tr>
<td>$2,500</td>
<td>$1,500</td>
</tr>
<tr>
<td>Total eligible project costs ≥ $10,000</td>
<td>Total eligible project costs ≥ $6,000</td>
</tr>
<tr>
<td>Maximum Grant Request</td>
<td>Maximum Grant Request</td>
</tr>
<tr>
<td>$500,000</td>
<td>$250,000</td>
</tr>
<tr>
<td>Total eligible project costs ≥ $2 million</td>
<td>Total eligible project costs ≥ $1 million</td>
</tr>
</tbody>
</table>
✓ **LOAN SIZE**
  - Minimum Loan Amount: $5,000
  - Maximum Loan Amount: $25,000,000 (Up to 75% of project cost)

✓ **GUARANTEE**
  - 85% for loans $600,000 or less.
  - 80% for loans over $600,000 up to $5 Million
  - 70% for loans over $5 Million up to $10 Million
  - 60% for loans over $10 Million
✓ **MAXIMUM TERM LIMITS**
- Working Capital – 7 Years
- Machinery & Equipment – 15 Years *(or useful life, whichever is less)*
- Real Estate – 30 Years

✓ **OTHER FUNDS REQUIRED**
- 25% of project costs

✓ **INTEREST RATE**
- Fixed or Variable; if variable can be adjusted quarterly
- Negotiated between lender and borrower
✓ **FEES**
  - One-time guarantee fee of 1%
  - $\frac{1}{4}\%$ annual renewal fee

**COLLATERAL**

✓ Must be sufficient collateral
✓ Appraised Collateral discounted consistent with typical discount factors.
✓ **Typical Discount Factors:**
  ✓ Real Estate – 80%
  ✓ M&E – 70 to 75%
  ✓ Inventory & A/R – 60%
Grant Competitions

  - Grants of $20,000 or less
    - October 31st
    - April 30th
  - Regular (unrestricted) April 30th