Loan Guarantee Program

Biomass Research and Development Technical Advisor Committee

June 23, 2010

Agenda

Introduction

Program Overview

Application and Loan Costs

Requirements for Eligible Biomass Projects

Application Process and Review Criteria

Introduction

- **Department of Energy's (DOE) Loan Program (LP)**
  - **Designed to provide financing to commercial-scale innovative renewable energy technologies that avoid, reduce or sequester anthropogenic emissions of greenhouse gases and air pollutants**

Legislative and Regulatory Drivers

- Energy Policy Act of 2005 (EPACT)
  - Title XVII
  - Final Rule: 10 CFR Part 609
- American Recovery and Reinvestment Act of 2009 (ARRA)
  - Amended Title XVII
- National Environmental Policy Act (NEPA)
  - Requires Federal agencies to assess the environmental impact of all major Federal actions significantly affecting the quality of the human environment

Program Highlights

- The Loan Program requests applications by issuing technology specific solicitations.
- By statute, loan guarantees may not exceed 80% of total project costs.
- Equity commitment is required of all projects
- If applicant proposes that DOE guarantee 100% of the loan, the loan must be disbursed by the Federal Financing Bank (FFB)
- Interest rate on FFB loans will track the US Treasury's H.15 Constant Maturities rate plus a spread of 25-75 basis points
- The term of the loan guarantee may not exceed the lesser of 30 years or 90% of projected useful life of project assets

Open Solicitations

There are currently two active solicitations:

1) Innovative Technologies (DE-FOA-0000140)

- “New or significantly improved technologies,” including solar, wind, hydropower, geothermal, biomass, energy efficiency, advanced transmission and distribution, and biomass projects
- Applications are submitted directly to LGP by project sponsor and evaluated on a competitive basis

2) Financial Institution Partnership Program (FIPP) for Conventional Renewable Energy Generation Projects (DE-FOA-0000166)

- For renewable energy systems, including incremental hydropower, that generate electricity or thermal energy by using “commercial technology”
- Applications are submitted by lead lender, as opposed to the project sponsor, and are accepted on a rolling basis

Application Process

Part I : **Innovation and Commercial Readiness Review**

- **Project Sponsor provides overview of Project**

Part II : **Detailed Technical and Financial Review**

- **Project Sponsor provides detailed project information**

Due Diligence

- **DOE engages third party engineering, market and legal counsel.**

Conditional Commitment

- **DOE establishes Conditions Precedent prior to closing**

Closing

- **Once all Conditions Precedent are met by Project Sponsor**

Application Review Factors

Technical

- Technical Relevance and Merit
- Applicant Capabilities, Technical Approach and Work Plan
- Environmental Benefits

Financial

- Creditworthiness
- Construction Factors
- Legal and Regulatory Factors

Application and Loan Costs

- **DOE must collect 3 non-refundable fees from the applicant to cover administrative expenses:**

  1) Application Fee: Covers DOE's administrative costs during pre-selection evaluation of an application.

  2) Facility Fee: 20% of the Facility Fee is due upon execution by the application of the Term Sheet approved by DOE; 80% is due upon closing of the Loan Guarantee Agreement.

  3) Maintenance Fee: Covers administrative expenses in servicing and monitoring the Loan Guarantee Agreement during the construction, startup, commissioning and operational phases of a project.

Application Fee Schedule

Loan Guarantee Amount	Total application fee amount	25% of application fee due with Part I	75% of application fee due with Part II
$0 – $150,000,000	$75,000	$18,750	$56,250
Above $150,000,000 – $500,000,000	$100,000	$25,000	$75,000
Above $500,000,000	$125,000	$31,250	$93,750

Facility Fee Schedule

Loan Guarantee Amount	Total Fee Amount
$0-$150,000,000	1% of guaranteed amount
Above $150,000,000- $500,000,00	$375,000 + 0.75% of guaranteed amount
Above $500,000,000	$1,625,000 + 0.50% of guaranteed amount

1705 Eligible Biofuels Projects

- **A 1705 Eligible Leading Edge Biofuels Project must:**
  - **Employ a new or significantly improved technology**
  - **Have not been deployed commercially in the U.S.**
  - **Have been piloted and demonstrated successfully**
  - **Substantially reduce life-cycle greenhouse gas emissions**
  - **Commence construction on or before September 30, 2011**
  - **Meet other requirements of Sections 1703 and 1705 of this Solicitation, Final Regulations, and applicable requirements of the Recovery Act**

Scale and Funding Source

- **General Guidance:**
  - **Pilot (1-2 dry tons/day) (R&D Funding)**
  - **Demonstration (50-70 tons/day) (DOE Grants)**
  - **Commercial Scale (minimum 700 tons/day) (DOE Loan Guarantee)**
  - **DOE would like to see that the project sponsor has successfully deployed a biorefinery at the demonstration scale noted above**

Addressing Market Risk for Biomass Projects

- **DOE would like to see a detailed plan by the project sponsor for mitigating market risk and providing DOE with a reasonable assurance of repayment of the loan.**
  - **Preferred option is through firm fixed price, long-term off-take contracts or power purchase agreements with creditworthy customers**
  - **If firm fixed price, long-term off-take contracts are unavailable, project sponsors should provide significantly more equity to their project and maintain significantly higher debt service coverage ratios.**
  - **Project Sponsor should present other credit enhancements in their project to mitigate market risk, e.g.,:**
    - **Feedstock contracts, offering reasonable supply & price certainty**
    - **Tax equity to pay down debt**
    - **Parent credit guarantees**
    - **Commodity Price Reserves**

For More Information

Web: http://www.lgprogram.energy.gov/

E-mail: DOEloanquestions@usaea-connect.com
(include the hyphen)

Phone: 614-324-5940