

Issue Brief: DOE Loan Guarantee Program



Title XVII of the Energy Policy Act of 2005 (EPAct 2005) authorizes the U.S. Department of Energy (DOE) to issue loan guarantees to eligible projects that “avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases” and “employ new or significantly improved technologies as compared to technologies in service in the United States at the time the guarantee is issued”. This title gives DOE authority to guarantee loans that support early commercial use of advanced technologies. The loan guarantees are designed so the Federal government will share some of the financial risks of projects that employ new technologies that are not yet supported in the commercial marketplace.

Title XVII specifies that DOE must receive either an appropriation for the “Subsidy Cost” or payment of that cost by the borrower. The Subsidy Cost is the expected long-term liability to the Federal government in issuing the loan guarantee. No funds have been appropriated by Congress for the Subsidy Cost of loan guarantees. Therefore, the borrower (the sponsors) of a project approved to receive loan guarantee pursuant to the first solicitation must pay this cost.

In August 2006, DOE issued guidelines and a solicitation for pre-applications for up to \$2 billion in loan guarantees. By the December 31, 2006 deadline for this solicitation, 143 pre-applications requesting more than \$27 billion in loan guarantee protection (for project costs estimated at more than \$51 billion) were submitted to DOE. The following chart illustrates the distribution of the types of project applications submitted to DOE.

Technology Area	% of Total Applications Submitted	% of Total Loan Guarantees Requested	% of Total Project Costs
Biomass	49%	14%	11%
Fossil Energy	16%	61%	69%
Solar	12%	7%	6%
Industrial	6%	10%	7%
Other	17%	8%	7%

On October 4, 2007, DOE invited 16 pre-applicants to submit full loan guarantee applications. The full application review will be subject to the final regulations issued (see the end of this document for a detailed summary of the final regulations that were issued on [October 4, 2007](#)). DOE has not yet issue any guarantees from this first round solicitation.

How Much Loan Guarantee Coverage Can DOE Provide?

The FY 2008 Omnibus Appropriations bill, enacted into law in December 2007, gives DOE authority to issue loan guarantees until September 30, 2009, but DOE cannot issue guarantees in excess of \$38.5 billion, which must be allocated as follows:

- \$18.5 billion for nuclear power facilities;
- \$6 billion for coal-based power generation and industrial gasification activities at retrofitted and new facilities that incorporate carbon capture and sequestration or other beneficial uses of carbon;
- \$2 billion for advanced coal gasification;
- \$10 billion for renewable and/or energy efficient systems and manufacturing, and distributed energy generation, transmission and distribution; and
- \$2 billion for advanced nuclear facilities for the “front-end” of the nuclear fuel cycle.

Current Solicitations

[Coal Project Solicitation](#). On September 22, 2008, DOE issue an \$8 billion solicitation for clean coal technologies. Of the total amount, \$6 billion in loan guarantees can be issued to coal-based power generation and industrial gasification facilities that incorporate carbon capture and sequestration (CCS) or other beneficial uses of carbon, with the remaining \$2 billion devoted to advanced coal gasification projects. Phase I of the project applications are due December 22, 2008; Phase II (due diligence application requirements) are due March 23, 2009. See below for detailed information on this solicitation.

[Renewable Energy Loan Guarantee Solicitation](#). On June 30, 2008, DOE issued a solicitation for energy efficiency, renewable energy and advanced transmission and distribution technologies. The application submission due dates for stand-alone and manufacturing projects, as well as the Part I applications for large-scale integration projects, are February 26, 2009. Part II applications for Large-Scale Integration Projects under the Renewables Solicitation are due on April 30, 2009, as set by DOE in written notices to eligible applicants.

[Nuclear Loan Guarantee Solicitation](#). On June 30, 2008 DOE issued two solicitations for nuclear power projects: (1) [nuclear power facilities](#) (\$18.5 billion); and (2) advanced nuclear facilities for the [“front-end” engineering](#) of the nuclear fuel cycle (\$2.0 billion). DOE received 19 Part I applications to support the construction of 14 nuclear power plants, and has been asked to provide loan guarantees in the amount of \$4 billion for front end nuclear facility projects. Part II of the applications are due on December 2, 2008.

2008 Coal Project Loan Guarantee Solicitation

On September 22, 2008, DOE announced an \$8 billion solicitation for clean coal technologies. Of the total amount, \$6 billion is allocated to coal-based power generation and industrial gasification facilities that incorporate carbon capture and sequestration (CCS) or other beneficial uses of carbon, with the remaining \$2 billion devoted to advanced coal gasification projects.

Recipients of clean coal tax credits are eligible to receive a guarantee. More than one application may be submitted by any one applicant, but loan guarantees are limited to one project per applicant per technology.

Guarantee Amount

- An applicant may seek a loan guarantee for a loan that covers no more than 80% of the total Project Cost.
- Applications will be denied if the applicant does not provide an equity contribution.
- Greater weight will be given to applications requesting a smaller guarantee percentage.
- DOE will only guarantee 100% of a loan if the loan comes from the Federal Financing Bank.
- DOE will guarantee loans from private lenders if the applicant requests a guarantee of less than 100% of the loan.
- If a guarantee of less than 90% of the loan is requested, the guaranteed portion may be stripped from the non-guaranteed portion.
- Applications will likely be evaluated on a limited recourse financing basis, meaning that DOE expects to assume minimal pre-construction risks.
- Projects proposing alternative structures are also encouraged.

Selection Criteria

Projects must meet the criteria of Title XVII of the Energy Policy Act of 2005, meaning projects must reduce, sequester, or avoid air pollutants or anthropogenic greenhouse gas emissions; deploy new or significantly improved technology; and demonstrate a reasonable prospect of repayment. Applications will be evaluated based on the following weighted criteria:

- Creditworthiness of the Project: 50%
- Programmatic Factors: 25%
 - *Construction Factors – 15%*
 - *Legal and Regulatory Issues – 10%*

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- Technical Review: 25%
 - *Technical Relevant and Merit – 5%*
 - *Technical Approach/Work Plan – 10%*
 - *Environmental Benefits – 10%*

In addition, the project must meet the following mandatory criteria:

1. Process successfully in use and meeting all emissions standards, or successfully demonstrated as a production prototype
2. Demonstrated ability to meet or exceed EPA Act Title XVII emissions criteria:
 - a. SO₂ emissions in flue gas < 0.05 lb/MMBtu
 - b. NOX emissions in flue gas < 0.08 lb/MMBtu
 - c. Particulate emissions in flue gas < 0.01 lb/MMBtu
 - d. 90% removal rate of mercury from fuel combusted by the project
3. Identification of final site plan
4. Construction commencing not more than 6 months after NEPA approval
5. No known environmental issues associated with the project

Process

1) APPLICATION

The first phase is the two-part application process, which began when the solicitation was issued. DOE may require the written information below to be supplemented with oral presentations or additional documentation.

Part I – Initial Information/Overview

- Due Dec. 22, 2008
- Items required:
 - \$200,000 non-refundable application fee
 - DOE application form
 - Letter of commitment, stating applicant's intent to pursue a loan guarantee
 - Consent to public disclosure of information
 - Project Description
 - Technical Information
 - Business Plan
 - Financial Plan

Part II – Due Diligence Information Requirements

- Due March 23, 2009
- Items required:
 - \$600,000 non-refundable application fee
 - Detailed information regarding project description, technical information, business plan, and financial plan.

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- Any changes from Part I.

2) PROJECT EVALUATION

- DOE will conduct due diligence and project underwriting
 - Outside counsel and consultants will likely be used during this phase to assist with the evaluation.
- DOE will prepare an environmental critique for applications in the competitive range.
 - Applicants will be asked to provide an environmental report, which will be independently evaluated by DOE.
 - The environmental data that must be supplied includes information regarding facilities, project location, proposed construction and operation plans, project milestones and timelines, status of other regulatory reviews and permits, alternative sites, and other industrial activities in the area.
 - Environmental critiques are not publicly available; a synopsis based on the critique will be made public and filed with the Environmental Protection Agency.
 - Categorical exclusions are not expected to apply to projects under this solicitation.
- Based on the evaluation, a recommendation will be forwarded to DOE's Credit Review Board (CRB).

3) TERM SHEET/CONDITIONAL COMMITMENT

- The CRB will review the application and act on the recommendation regarding issuance of a Term Sheet for the project.
 - The Term Sheet contains the terms and conditions under which DOE will guarantee a loan, but does not constitute an agreement to issue the guarantee.
 - The Term Sheet is subject to negotiation, but all subsequent changes must be approved by the CRB.
- Once the terms and conditions are mutually agreed upon, the Term Sheet becomes a Conditional Commitment, subject to termination by the Secretary for any reason prior to execution of the loan guarantee agreement.
- Applicants must pay a non-refundable fee equal to one-half of one percent of the total guaranteed amount, no later than the earlier of:
 - the issuance of a Term Sheet; or
 - the start of negotiations between DOE and an applicant on a draft Term Sheet.

4) APPROVAL OF THE LOAN GUARANTEE AGREEMENT/CLOSING

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- When all terms and conditions have been met to DOE's satisfaction, a record of loan decision will be prepared and submitted to the Secretary for approval of a Loan Guarantee Agreement
 - If DOE's General Counsel advises that all terms and conditions have been met and the Secretary approves the agreement, a date for closing will be set.
- At or before closing, applicants must also pay the Credit Subsidy Cost for the guarantee, an amount based on governmental estimates of the risk of default and other statutory requirements.
 - Successful applicants will also be obligated to pay an annual maintenance fee.
 - Ability to pay these and other transaction costs is a factor in the project evaluation.

DOE Final Rule to Implement Title XVII

On October 4, 2007, after considering various comments on a Notice of Proposed Rulemaking, DOE issued a Final Rule establishing the policies, procedures and requirements for the Title XVII loan guarantee program.

The Final Rule provides the following:

Solicitation

- DOE may implement the loan guarantee program through a series of solicitations, which may target specific technology areas.
- While DOE agreed that an open or rolling process for the loan guarantee program would give applicants greater flexibility in deciding when, or if, to submit an Application to DOE, such a structure would interfere with DOE's ability to focus on specific technologies.
- DOE considered, but decided not to require, competitive procedures or requirements to be employed when DOE evaluates Applications for loan guarantees. DOE does not believe that Applications need to be "competed" one against the other. As a practical matter, the Applications that are submitted will be competing against each other for the available loan authority. The evaluation process, as set up, will result in the Applications being ranked in such a manner that the Applications that best fulfill the statutory and solicitation criteria from DOE's perspective will receive higher scores.
- Certain projects, such as nuclear power plants, require long lead times prior to the submission of a loan guarantee Application. DOE believes that solicitations can be devised and tailored to particular technologies that accommodate such long lead-time requirements.

Technologies

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- DOE revised the definition of “new or significantly improved technology.” In the Final Rule, this phrase is defined as a technology “concerned with the production, consumption or transmission of energy that is not a commercial technology, and that has either: (1) only recently been developed, discovered or learned; or (2) involves or constitutes one or more meaningful and important improvements in productivity or value, in comparison to commercial technologies in the United States at the time the Term Sheet is issued.”
- DOE also revised the definition of “in general use” for determining project eligibility. Under the Final Rule, a technology is in general use if “it has been installed in and is being used in three or more commercial projects in the United States, in the same general application as the proposed project, and has been in operation in each such commercial project for a period of at least five years.”
- While certain commenters requested that DOE differentiate between nuclear power generation projects and other projects, the Final Rule does not differentiate between those types of projects.

Financial Structure

- The Final Rule provides that DOE may issue guarantees for up to 100% of the amount of the loan, subject to the EAct 2005 limitation that the guarantee cannot be for more than 80% of the total cost of the project.
- If DOE guarantees 90% or less of the loan amount, the eligible lender and other holders may strip the guaranteed portion from the non-guaranteed portion of the debt instrument.
- In the event of a default, DOE will have a superior lien on all project assets pledged as collateral, however, the Final Rule allows for the possibility that lenders and holders of the non-guaranteed debt could share proportionately with DOE in proceeds from the sale of project assets pledged as collateral.
- Loan guarantees will be secured by all project assets, including, contracts, agreements, and other pledged collateral. Other than the pledged project assets and other pledged collateral, however, the loan guarantee is non-recourse to all persons and entities.

Equity Requirement

- The borrower must have a significant equity stake in the project.
- DOE will consider the amount of equity that will be contributed to a project when comparing that project against other projects.

Other Governmental Assistance

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- DOE will consider whether and to what extent the Applicant will rely on other governmental assistance when evaluating the project.

Credit Assessment and Rating Requirements

- When the total project cost for an eligible project is projected to exceed \$25 million, Applicants will be required to submit a credit assessment for the project without a loan guarantee.

Credit Subsidy Cost

- DOE kept the NOPR provisions dealing with credit subsidy costs. The project sponsor will have to pay the credit subsidy cost for any guarantee they receive.
- DOE is currently working to develop a methodology that can be used to calculate the credit subsidy cost for individual projects.

Administrative Fees

- DOE did not provide a formula for calculating administrative fees in the Final Rule.
- A fee schedule will be published by DOE in the near future.

Project Costs

- Borrower-paid credit subsidy costs and administrative fees paid to DOE may not be included within total project costs for determining the amount of the guarantee that DOE can issue for a project.

Eligible Lenders and Servicing Requirements

- The NOPR stated that participating Eligible Lenders or other servicers must meet certain eligibility, monitoring, and performance requirements. DOE, agreeing with certain commenters, endorsed the idea of maximizing the pool of Eligible Lenders and allowing the use of loan servicers that may not be Eligible Lenders but that otherwise meet all applicable standards.

Authority to Provide Loan Guarantees

- DOE read EPAct and FCRA to mean that while Title XVII authorizes DOE to carry out the loan guarantee program, DOE may not issue any loan guarantees until it has received budget authority or is otherwise provided authority to make guarantees in an appropriations act.

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Default and Audit Provisions

- DOE clarified that the Final Rule and the loan guarantee program are not subject to the Federal Acquisition Regulations (FAR).
- DOE also clarified that the audit provisions do not render the loan guarantees conditional.
- The Final Rule requires lenders to provide supporting documentation to justify a payment demand.

Tax-Exempt Debt

- DOE may not, directly or indirectly, guarantee tax-exempt obligations because it is prohibited by statute.

Applicability of Final Rule to First Solicitation

- The Final Rule specifies which sections of the regulations are not applicable to projects submitted in response to the First Solicitation.

Other Miscellaneous Issues

- DOE declined to establish, by rule, firm timelines for the processing of Applications.
- A Conditional Commitment is an agreement to pursue the execution of a Loan Guarantee Agreement.
- DOE will provide, in the Loan Guarantee Agreement and related documents, procedures for identifying holders of the guaranteed obligation, including for the purpose of payments pursuant to the guarantee in the event of default, to ensure that any guaranteed obligation presented to it for payment is valid.

For more information about the DOE loan guarantee program, please contact CURC at (202)298-1850.