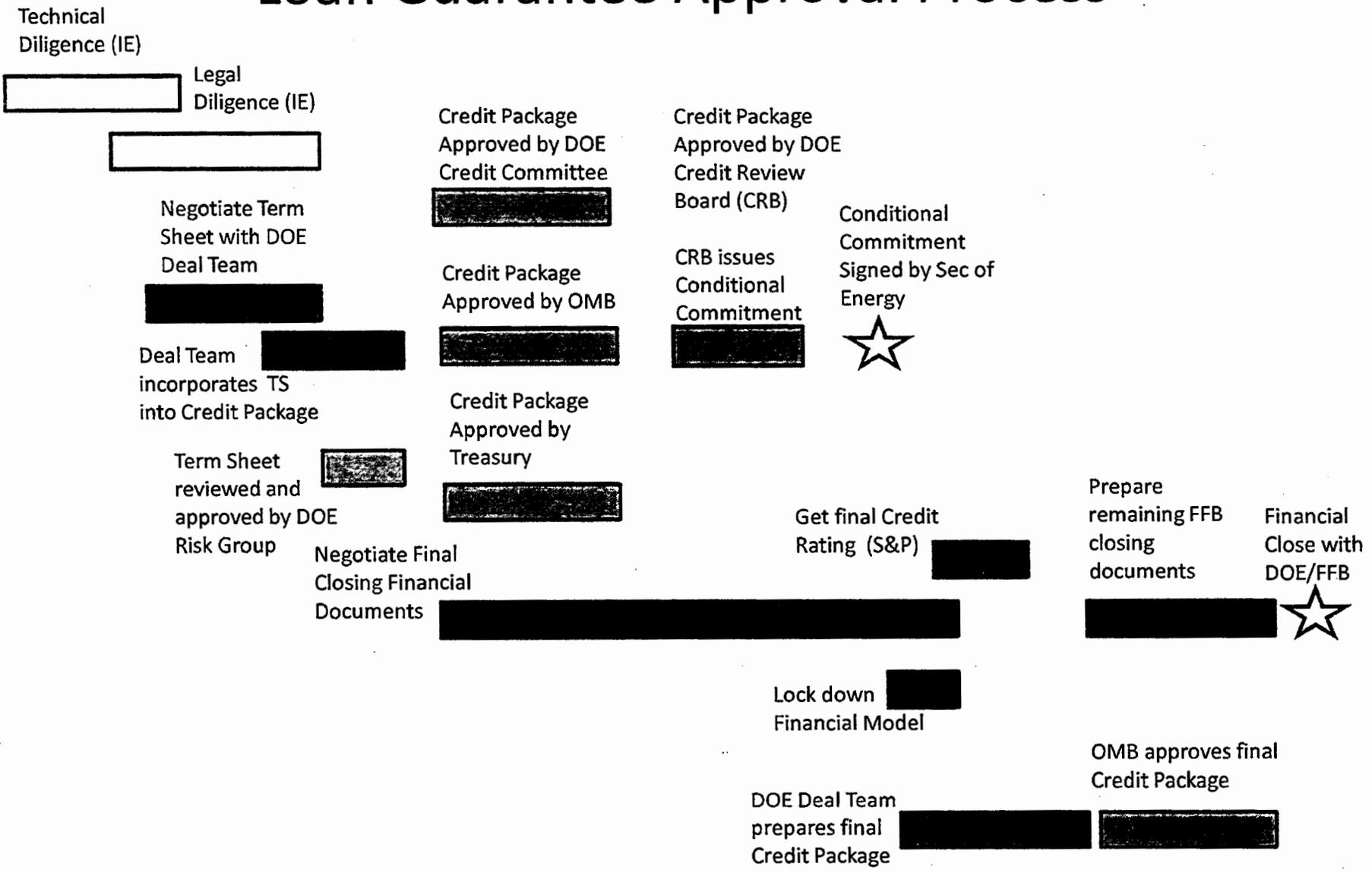


CEOs and Senior Executive/Press Conference

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DOE
Loan Guarantee

Loan Guarantee Approval Process



BRIEFING MEMO

THE WHITE HOUSE
Washington

October 25, 2010

MEMORANDUM FOR THE PRESIDENT

FROM: CAROL BROWNER
RON KLAIN
LARRY SUMMERS

SUBJECT: Renewable Energy Loan Guarantees and Grants

Your advisors seek your direction on implementing the energy loan guarantee program. Three near-term risks characterize this program: rescission of non-obligated funds; criticism from Hill supporters and stakeholders for slow implementation; and making commitments to projects that would have happened anyway and thus fail to advance your clean energy agenda. In considering these risks, the Department of Energy supports a process that would limit OMB and Treasury review. OMB and Treasury support the establishment of clear policy principles for project review, recognizing that this may pose a risk that some program funds may not be obligated by the program's September 30, 2011 sunset date. We also believe you should consider working with Congress to reprogram loan guarantee funds for an extension of the Recovery Act's renewable grant program during the lame duck tax extenders debate. An expanded EDB, including Secretary Chu, will provide an opportunity to discuss the options described below with you tomorrow.

DISCUSSION

Background

The Recovery Act created two new programs to promote deployment of renewable power: the 1705 energy loan guarantee program and the 1603 grant in lieu of tax credit program.

1705 Energy Loan Guarantee Program: The Recovery Act appropriated about \$6 billion to enable the government to pay for the credit subsidies associated with loan guarantees for renewable energy (and related) projects. The credit subsidy can be thought of as the premium that must be paid for the insurance the government provides in guaranteeing the loan for a project. This program was intended to address concerns about tightening credit markets for renewable projects. It represents a modification of the existing 1703 loan guarantee program, which supports innovative technologies and covers renewables, nuclear, and advanced fossil. To date, the 1703 program has not received appropriations for credit

subsidies, thus requiring project developers to pay the government for the credit subsidy and thereby limiting the interest in the 1703 program among small renewable developers.¹

1603 Grant Program: Renewables developers may opt to convert the existing renewable investment tax credit, equal to 30 percent of a project's investment cost, into a grant. Before the financial crisis, renewable developers often partnered with large financials that had sizable taxable income and could use tax credits, i.e., provide "tax equity." This program addresses concerns about the capacity of the tax equity market for renewables through 2010.

Doubling Renewable Power Goal: Based on these Recovery Act programs, the Administration set a goal to double renewable power generation within three years. In 2009, the wind industry enjoyed its best year ever with nearly 10,000 megawatts of new installed capacity. Lawrence Berkley National Lab estimated that nearly one-quarter of this capacity would not have been built in the absence of the 1603 grant program. The 1705 loan guarantee program did not close any deals on renewable generation in 2009.

Summary of 1705 Loan Guarantee Program and 1603 Grant Program (through October 25)

	1705 Loan Guarantee	1603 Grant
Staff	100-200 FTE DOE staff and contractors	5 Treasury FTEs and 15 DOE FTEs
Determination of Receipt	Discretionary, reflecting deal characteristics and negotiations with sponsor	Standardized, subject to eligible technology entering into service
Typical length of review	6+ months	4-6 weeks
Program sunset date	September 30, 2011	December 31, 2010
Total number of projects (closed/conditional for 1705)	4 / 8	3,851
Number of wind power projects	1 / 1	203
Number of solar power projects	0 / 2	3,571
Number of geothermal power projects	1 / 1	23
Number of biomass power projects	0 / 0	25
Number of other technology projects	2 / 4	29
Number of states with supported projects	4 / 6	48 plus DC and PR
Total capacity installed (MW)	~80 / ~1,600	~8,600
Total investment supported	\$1.2 billion / \$7.6 billion	~\$18.2 billion

Note: Project sponsors for all power generation projects under the 1705 program have indicated that they intend to claim a 1603 grant once they enter into service.

¹ The 1703 program has made conditional commitments for the Southern Company's Vogtle nuclear power plant in Georgia and AREVA's Eagle Rock Enrichment Facility in Idaho.

Estimated Benefits of 1705 and 1603 to Renewables Developers: The combined effect of 1603 and 1705 lowers the cost of a new wind farm by about 55% and solar technologies by about half relative to a no-subsidy case (see appendix table 1). Renewables' intermittency problem limits the deployment of these technologies, which could be remedied by installing back-up capacity (likely increases the cost by 2 to 4¢/kWh). Past experience with the wind tax credit suggests that the 1603 grant and the associated tax credits could have a significant impact on new wind capacity. Appendix figure 1 shows (in shaded regions) the halt to new investment during the three times the wind tax credit expired since 1999.

Loan Guarantee Pipeline and Process: After receiving an application, DOE conducts extensive due diligence work on the technological, financial, credit, legal, contractual, environmental, and operational aspects of each project. This due diligence can take months to complete and often results in significant changes to the original transaction structure to mitigate identified risks. In addition to negotiating with the project sponsors, DOE also engages in a back-and-forth with OMB and Treasury, in particular after the deal package has been submitted for review. OMB review of DOE projects has averaged 28 calendar days since September 2009, and 17-business days for the 1 closing and 3 conditional commitments DOE has transmitted between August 1 and October 15 of this year. DOE notes that the back and forth consumes a significant amount of staff time, thereby making it challenging to move several transactions forward simultaneously. Policy review by Treasury and the White House has occasionally extended the amount of time a project is under review beyond the time taken by OMB to score a credit subsidy. Last week, DOE conducted an interagency preview of five projects, with the expectation that most of these could reach the conditional commitment stage within the next 4-8 weeks under the current review system. DOE currently has 35 projects in due diligence, and expects a significant number of new applications when two project solicitations close in the next few weeks. Since loan guarantee funds can only be obligated at closing, conditional commitments will need to occur in the first quarter of 2011 in order to close by September 30, 2011.

Legislative Implications

The Administration's approach to the renewable loan guarantee program and grants has implications for legislative activity, including the FY2011 appropriations (House mark is \$0, Senate mark is \$380 million for energy loan guarantee credit subsidies); the tax extenders bill in which some Members would like to extend the 1603 grant; and the FY2012 budget.

Risks Characterizing the Loan Guarantee Program

Rescission Risk: The 1705 loan guarantee program has been scaled back to about \$2.5 billion after reprogramming for Cash-for-Clunkers (May 2009) and the state aid package (August 2010). There has been recent interest in rescinding unobligated Recovery Act balances to pay for other programs. DOE has obligated about 2.5% of the \$2.5 billion in the 1705 program appropriations. An additional 9 projects have received 1705 conditional commitments, and if DOE closes these deals, the total obligations would be about \$500 - \$900 million.

Congressional Risk: Failing to make progress on renewables loan guarantees could upset the Hill (Sen. Bingaman, Speaker Pelosi), as well as renewables stakeholders, and draw criticism of the White House, which has been singled out as a roadblock on past loan guarantees.

Economic Risk: OMB and Treasury, which have statutory obligations to review 1705 loan guarantees, have raised implementation questions, including: “double dipping” – the total government subsidy for loan guarantee recipients, which have exceeded 60%; “skin in the game” – the relatively small private equity (as low as 10%) developers put into projects; and non-incremental investment – some loan guarantee projects would appear likely to move forward without the credit support offered by 1705 (including those projects that already exist and for which the loan guarantee simply provides a means for refinancing). See the appendix for an illustration of these issues with the Shepherds Flat project.

Energy Loan Guarantee Program Options

Option 1: Limit OMB and Treasury Oversight Role

In the current review process, after working with project sponsors for 6 to 18 months, DOE submits projects for review of the credit subsidy for conditional commitments and policy review by OMB and Treasury. DOE would prefer to eliminate the deal-by-deal review and instead have OMB and Treasury play roles akin to what they do for other credit programs, such as OPIC and Ex-Im Bank. It should be noted, however, that OPIC and Ex-Im credit programs have a long track record; OMB was more involved in the review of these programs in their early years; and they have boards with representation by other Federal agencies, including Treasury, that review and approve all major projects. DOE would make initial credit subsidy estimates at the conditional commitment stage, and OMB would only review and approve of the credit subsidy used at the time of closing on a deal.

Pros

- Some Members of Congress may applaud this effort, *if* it results in a meaningful increase in the rate of granting conditional commitments to energy projects.

Cons

- Still exposes 1705 program to rescission risk until DOE can move through its pipeline a lot more conditional commitments – up to twice as many in the next few months as have been made in first 20 months of the program.
- OMB believes that this approach will not remedy the challenge of an insufficient number of financially and technically viable projects in the 1705 pipeline.
- The economic risks will not likely be addressed.

Option 2: Make the Process Work Better by Establishing Clear Policy Principles

Treasury and OMB believe that clear policy principles – and associated metrics for evaluation – should be developed for the energy loan guarantee program. These principles would be applied to all projects and address issues like doubling dipping, skin in the game, and incrementality of investment (including refinancing). Those proposed loan guarantee projects that have satisfactory measures under each of the key policy principles would then be expedited through review. Those that do not would require more extensive policy review

and possible rejection. It is important to recognize that under such an approach, there is a risk that not all of the 1705 appropriation of \$2.5 billion will be obligated by the program's sunset of September 30, 2011.

Pros

- Ensures the economic integrity of government support for renewables.

Cons

- Exposes the program to rescission risk through September 30, 2011.
- Some Members of Congress may criticize this effort to limit the application of the loan guarantee program. The White House will bear this criticism.

Option 3: Reprogram 1705 Funds for an Extension of 1603 Grant Program

The 1603 grant program expires on December 31, although the associated tax credits that could be converted into grants under this program do not sunset ~~until December 31, 2012~~. A 2-year extension of the 1603 grant program through the sunset of the associated tax credits has a \$2.5 billion tax score. The Administration could work with Congress during the lame duck on the tax extenders bill to reprogram the 1705 funds to pay for the 1603 extension. As a variant of this option, the funds could be reprogrammed to support other clean energy priorities, such as the 48C clean energy manufacturing tax credit.

Pros

- Moves funds to the 1603 program that has been much more effective in promoting renewable energy, and likely to have a more significant impact on renewable energy investment in 2011 and 2012.
- Reduces economic risks and the rescission risks identified above.

Cons

- Sen. Bingaman, who views 1705 as "his program," would strongly oppose.
- Could signal the failure of a Recovery Act program that has been featured prominently by the Administration.
- The reprogramming effort entails the risk that Congress accepts the 1705 rescission but fails to deliver the 1603 extension.

Option 4: Streamline and Accelerate OMB / Treasury Reviews with Project Prioritization

OVP supports an option that falls in possible middle ground between options 1 and 2. This approach would create an expedited deal review process, while not doing away with Treasury and OMB reviews altogether. One option to be explored would be to assign higher credit subsidy scores in order to reach faster agreement on the government's risk tolerance and to more quickly utilize the \$2.5 billion in appropriated funds. In addition, this approach could prioritize deals with more favorable policy characteristics (e.g., deals with lower total government subsidies). This option would prevent the holding of the loan guarantee program to a more rigorous policy standard in awarding stimulus funds than other Recovery Act programs. The focus would be on spending all remaining funds while maintaining the necessary risk avoidance and *prioritizing* policy issues where possible.

Pros:

- Parties with equities, including Hill members and industry groups, would view the Administration as supporting a program that they have spent political capital defending.
- This would be an attempt to fix a broken process, as opposed to a complete and unexpected overhaul which could engender criticism.

Cons:

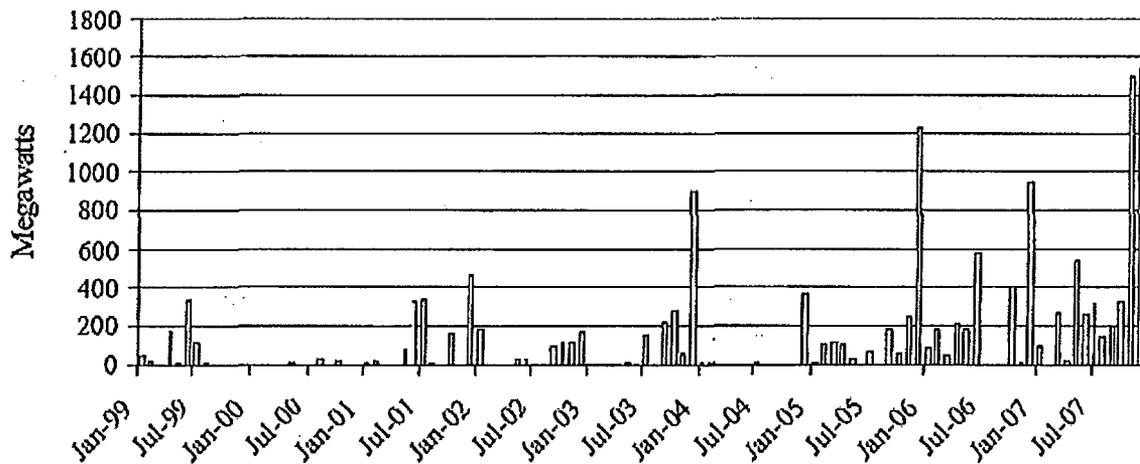
- DOE, OMB, and Treasury have tried to reach common ground on which to execute the program to date, and success has been limited.
- In order to spend the remaining budget authority, the policy principles may be so lax that this option may resemble Option 1 in practice.

Appendix Table 1: Cost of Generating Power from New Capacity Investment by Technology Type, ¢/kWh

	Natural Gas	Wind	Solar Thermal
No Subsidy Cost	7.3	8.8	23.2
Cost with 1603	7.3	6.7	16.0
Cost with 1603 and 1705	7.3	4.0	12.6

Source: DOE Energy Information Administration 2010.

Appendix Figure 1: U.S. Wind Capacity Additions and Periods of No Wind Tax Credit (shaded), 1999-2007



Source: Metcalf 2009 using DOE Energy Information Administration data.

Appendix: Shepherds Flat Loan Guarantee

The Shepherds Flat loan guarantee illustrates some of the economic and public policy issues raised by OMB and Treasury. Shepherds Flat is an 845-megawatt wind farm proposed for Oregon. This \$1.9 billion project would consist of 338 GE wind turbines manufactured in South Carolina and Florida and, upon completion; it would represent the largest wind farm in the country. The sponsor's equity is about 11% of the project costs, and would generate an estimated return on equity of 30%.

- Double dipping: The total government subsidies are about \$1.2 billion.

Subsidy Type	Approximate Amount (millions)
Federal 1603 grant (equal to 30% investment tax credit)	\$500
State tax credits	\$18
Accelerated depreciation on Federal and State taxes	\$200
Value of loan guarantee	\$300
Premium paid for power from state renewable electricity standard	\$220
Total	\$1,238

- Skin in the game: The government would provide a significant subsidy (65+%), while the sponsor would provide little skin in the game (equity about 10%).
- Non-incremental investment: This project would likely move without the loan guarantee. The economics are favorable for wind investment given tax credits and state renewable energy standards. GE signaled through Hill staff that it considered going to the private market for financing out of frustration with the review process. The return on equity is high (30%) because of tax credits, grants, and selling power at above-market rates, which suggests that the alternative of private financing would not make the project financially non-viable.
- Carbon reduction benefits: If this wind power displaced power generated from sources with the average California carbon intensity, it would result in about 18 million fewer tons of CO2 emissions through 2033. Carbon reductions would have to be valued at nearly \$130 per ton CO2 for the climate benefits to equal the subsidies (more than 6 times the primary estimate used by the government in evaluating rules).

Black, Steve

From: Sean Gallagher [Sean.Gallagher@tesseractasolar.com]
Sent: Tuesday, October 05, 2010 6:37 PM
To: Black, Steve
Subject: FW: Multiple applications
Attachments: Orszag_letter_on_LGP__Pelosi.pdf; DF to Lew OMB re loan guarantee.pdf

Steve, thanks for everything today. The Secretary did a great job.

As we discussed yesterday, I will put together a short memo on our LG experience and expectations. In the meantime, attached are Orszag's letter to Pelosi supporting the fix to the ban on multiple applications by a developer for the same technology in response to the same solicitation (note that the ban does not apply to multiple applications by the same developer using different technology, does not apply to the commercial FIPP program, and does not apply where the developer responds to two different solicitations). Also attached is Senator Feinstein's recent letter to OMB nominee Jack Lew regarding the LG program, including the multiple applications ban. Finally, below is the section of the LG regulations that states that DOE can waive its regulations that are not required by statute.

Sean

§ 609.18 Deviations.

To the extent that such requirements are not specified by the Act or other applicable statutes, DOE may authorize deviations on an individual request basis from the requirements of this part upon a finding that such deviation is essential to program objectives and the special circumstances stated in the request make such deviation clearly in the best interest of the Government. DOE will consult with OMB and the Secretary of the Treasury before DOE grants any deviation that would constitute a substantial change in the financial terms of the Loan Guarantee Agreement and related documents. Any deviation, however, that was not captured in the Credit Subsidy Cost will require either additional fees or discretionary appropriations. A recommendation for any deviation shall be submitted in writing to DOE. Such recommendation must include a supporting statement, which indicates briefly the nature of the deviation requested and the reasons in support thereof.



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

THE DIRECTOR

May 21, 2010

The Honorable Nancy Pelosi
Speaker of the House of Representatives
Washington, DC 20515

Dear Madam Speaker:

It is a priority of this Administration to take strong action to increase our energy security, reduce the threat of climate change, and position the United States to lead in the development of new clean energy industries. As President Obama has said, "The nation that leads the world in creating new sources of clean energy will be the nation that leads the 21st century global economy." I know that you share this view, and I thank you for your strong leadership on clean energy issues.

To achieve our clean energy goals, we need to invest now to develop and deploy the most promising technologies. That is why in the American Recovery and Reinvestment Act as well as in the Fiscal Year (FY) 2010 and FY 2011 budgets, the Administration has dedicated significant resources to spur the development of clean energy and the creation of new jobs.

The Department of Energy's (DOE) Title XVII Loan Guarantee Program is an important tool for promoting innovation in the energy sector across a broad portfolio of clean and efficient energy technologies. The President's FY 2011 Budget proposed providing \$500 million in new budget authority to support approximately \$3 to \$5 billion in energy efficiency and renewable energy projects in addition to providing \$36 billion in loan guarantee authority for nuclear power facilities in the Title XVII Program. To help achieve the Administration's clean energy objectives in the current fiscal year we request that the Congress provide a portion of this additional loan guarantee authority as part of the supplemental appropriations bill currently under consideration or as part of another appropriate legislative vehicle. Providing this authority now would accelerate our efforts to leverage private sector investment in clean energy projects and is integral to the President's efforts to move the Nation toward a clean energy economy that will reduce America's dependency on foreign energy sources and spur the creation of new jobs.

Specifically, the Administration urges the Congress to provide \$90 million in budget authority in the supplemental to support additional loan guarantees for renewable energy projects and efficient end-use energy technology projects. These funds will be available to support the credit

subsidy costs for a wide range of innovative solar, wind, geothermal, and other renewable energy projects, as well as projects that improve how we use energy.

The President is also committed to restarting our domestic nuclear industry. Earlier this year, DOE made a conditional commitment to finance construction of what will be the first nuclear reactor to break ground in the United States in decades. To help advance new nuclear reactors, the Administration also urges the Congress to provide an equal amount of budgetary resources -- \$90 million under CBO scoring conventions -- to support additional loan guarantee authority for advanced nuclear power facilities. Together with existing authority, the additional authority provided by this request would enable up to three nuclear power plant projects that are currently under review to move forward to a conditional commitment in 2010. A separate request will be transmitted in the near future to the Congress to reduce the FY 2011 Budget by the amounts in this supplemental request.

To protect taxpayer interests as well as improve the efficiency of program implementation, the Administration also proposes making several amendments to the Title XVII Loan Guarantee Program and Advanced Technology Vehicle Manufacturing statutes. These changes include allowing project credit subsidy costs for modifications to Title XVII loan guarantees to be paid from a combination of borrower payments and appropriated funds; expanding the Section 1705 program to include efficient end use energy technology projects; allowing the Loan Guarantee Program to provide guarantees to projects at multiple sites; allowing project sponsors to be eligible for multiple loan guarantees for eligible projects under the Section 1705 program; and permitting DOE to require borrowers to pay directly or to charge fees to reimburse DOE for expenses incurred for third-party consultants and advisors to the Advanced Technology Vehicle Manufacturing program.

Thank you for your strong leadership and for your consideration of these proposals. The Administration looks forward to working with the Congress on these proposals.

Sincerely,



Peter R. Orszag

Identical letter sent to The Honorable Harry Reid

United States Senate

WASHINGTON, DC 20510

September 20, 2010

The Honorable Jacob Lew
Director Designate
White House Office of Management and Budget
1650 Pennsylvania Avenue, NW
Washington, DC 20503

Dear Mr. Lew:

Congratulations on your recent nomination to serve as Director of the White House's Office of Management and Budget (OMB). Prior to your nomination being approved, we are writing to ask you a few questions about the role OMB will play, under your direction, in reviewing applications for Department of Energy (DOE) loan guarantees.

Congress and the Administration addressed frozen credit markets by establishing an emergency loan guarantee program for renewable energy projects in the 2009 American Recovery and Reinvestment Act (ARRA). The temporary program (Section 1705 of the Energy Policy Act of 2005) has resulted in a tremendous private industry response. DOE has received proposals to invest billions of dollars in energy infrastructure. As of August, DOE had 81 separate renewable energy infrastructure and transmission projects either in its final "due diligence" phase of review or its second-to-last review phase (Part II).

The DOE Loan Guarantee Program could help put tens of thousands of Americans to work building billions of dollars worth of renewable energy infrastructure by the end of the year. Twenty-six loan guarantee applications, including nine in California, in DOE's final "due diligence" review are seeking \$12 billion in guaranteed loans to build infrastructure across the nation. If these projects are financed this fall, they will be able to break ground in time to take advantage of the successful Renewable Energy Treasury Grants Program (established in Section 1603 of ARRA), which expires at the end of 2010.

Unfortunately, the loan guarantee application review process conducted by both DOE and OMB takes too long, and we are increasingly concerned that worthy projects will not receive financing in time to take advantage of the

Treasury Grants Program. In contrast, expeditious review of applications could drive private investment in energy infrastructure projects during this economic downturn, advancing both our economic and environmental goals.

We strongly support a thorough review of each application for a Federal loan guarantee. However, we are confident that applications could be evaluated more expeditiously, and just as effectively. Private investors proposing to put Americans to work building energy infrastructure projects should be turned away on the merits of their applications, not because the Federal government failed to give their application due consideration under a reasonable timeline.

In light of our concerns about the loan guarantee review process, we would greatly appreciate your willingness to answer the following questions before your nomination is considered by the Senate.

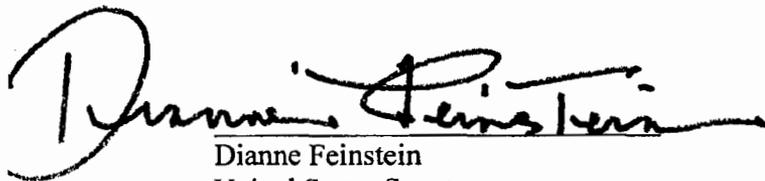
1. The DOE recently pledged that it will process four to five loan guarantee applications per month this fall. Will you add staff at OMB to complete four to five loan guarantee application final cost reviews per month this fall?
2. Do you support a requirement that OMB complete loan guarantee application cost review in 30 days or less?
3. By when will DOE and OMB complete review of all 26 loan guarantee applications in "due diligence"?
4. In your judgment, will the subsidy cost of these 26 projects exhaust or nearly exhaust currently appropriated funding for the loan guarantees under Section 1705 of the Energy Policy Act of 2005?
5. If the projects in final "due diligence" exhaust most of DOE's remaining funding, DOE will not be able to provide loan guarantees to most projects proposed in applications still in DOE's first or second application review phase. If necessary, would you work with the Senate Appropriations Committee to identify offsets to fund renewable energy loan guarantee subsidy costs?
6. OMB's final cost review of loan guarantee applications has led to dramatic changes in loan terms previously negotiated with the DOE, and extensive delays. Please describe your view of OMB's role and responsibility in

reviewing loan guarantee transactions. Please explain how you plan to prevent OMB's review from overlapping with DOE's previous work.

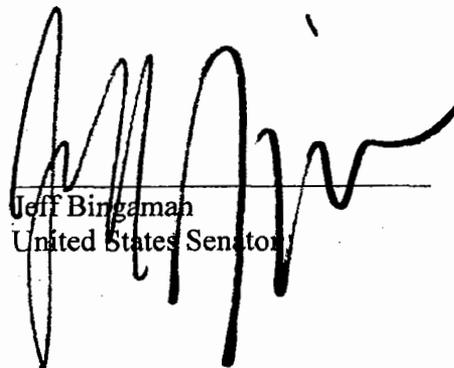
7. The Energy Policy Act of 2005, which established the DOE Loan Guarantee Program, did not require OMB to review loan guarantee applications. The Federal Credit Reform Act of 1990 directs OMB to coordinate the cost estimate of a loan guarantee. What is the statutory basis supporting the role and responsibility of OMB outlined in your answer to question 6?
8. Director Orszag pledged to meet with Secretary Chu on a biweekly basis to expedite loan guarantee application review. Will you continue these meetings?
9. DOE rules prevent loan guarantees for (1) projects using multiple sites and (2) project sponsors with multiple eligible projects. The rules are skewed against impressive renewable energy companies that plan to break ground on multiple worthy projects this year. OMB Director Orszag endorsed removing these limits in a letter to Majority Leader Reid dated May 21, 2010. However, these limits were established by regulation, not statute. Does the Administration plan to waive or remove these limits administratively?

We are committed to the success of the DOE Loan Guarantee Program for renewable energy projects, and we look forward to working with you to ensure the program realizes its full potential. No other infrastructure program established in ARRA has the potential to produce ten dollars of private investment for every dollar of public money appropriated. If you have any questions or would like to discuss this matter, please do not hesitate to contact us.

Sincerely,



Dianne Feinstein
United States Senator

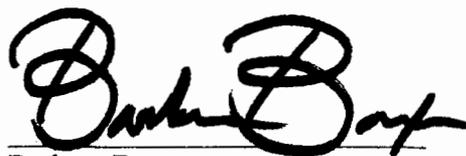


Jeff Bingaman
United States Senator

The Honorable Jacob Lew
September 20, 2010
Page 4



Debbie Stabenow
United States Senator



Barbara Boxer
United States Senator



Maria Cantwell
United States Senator

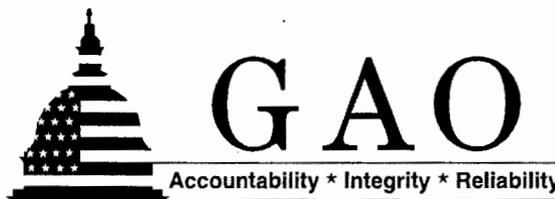


Tom Udall
United States Senator

July 2010

DEPARTMENT OF
ENERGY

Further Actions Are
Needed to Improve
DOE's Ability to
Evaluate and
Implement the Loan
Guarantee Program





Highlights of GAO-10-627, a report to congressional committees

DEPARTMENT OF ENERGY

Further Actions Are Needed to Improve DOE's Ability to Evaluate and Implement the Loan Guarantee Program

Why GAO Did This Study

Since the Department of Energy's (DOE) loan guarantee program (LGP) for innovative energy projects was established in Title XVII of the Energy Policy Act of 2005, its scope has expanded both in the types of projects it can support and in the amount of loan guarantee authority available. DOE currently has loan guarantee authority estimated at about \$77 billion and is seeking additional authority. As of April 2010, it had issued one loan guarantee for \$535 million and made nine conditional commitments. In response to Congress' mandate to review DOE's execution of the LGP, GAO assessed (1) the extent to which DOE has identified what it intends to achieve through the LGP and is positioned to evaluate progress and (2) how DOE has implemented the program for applicants. GAO analyzed relevant legislation, prior GAO work, and DOE guidance and regulations. GAO also interviewed DOE officials, LGP applicants, and trade association representatives.

What GAO Recommends

GAO recommends that DOE develop performance goals reflecting the LGP's policy goals and activities; revise the loan guarantee process to treat applicants consistently unless there are clear, compelling grounds not to do so; and develop mechanisms for administrative appeals and for systematically obtaining and addressing applicant feedback. DOE said it is taking steps to address GAO's concerns but did not explicitly agree or disagree with the recommendations.

View GAO-10-627 or key components. For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

What GAO Found

DOE has broadly indicated the program's direction but has not developed all the tools necessary to assess progress. DOE officials have identified a number of broad policy goals that the LGP is intended to support, including helping to mitigate climate change and create jobs. DOE has also explained, through agency documents, that the program is intended to support early commercial production and use of new or significantly improved technologies in energy projects that abate emissions of air pollutants or of greenhouse gases and have a reasonable prospect of repaying the loans. GAO has found that to help operationalize such policy goals efficiently and effectively, agencies should develop associated performance goals that are objective and quantifiable and cover all program activities. DOE has linked the LGP to two departmentwide performance goals, namely to (1) double renewable energy generating capacity by 2012 and (2) commit conditionally to loan guarantees for two nuclear power facilities to add a specified minimum amount of capacity in 2010. However, the two performance goals are too few to reflect the full range of policy goals for the LGP. For example, there is no performance goal for the number of jobs that should be created. The performance goals also do not reflect the full scope of program activities; in particular, although the program has made conditional commitments to issue loan guarantees for energy efficiency projects, there is no performance goal that relates to such projects. Without comprehensive performance goals, DOE lacks the foundation to assess the program's progress and, more specifically, to determine whether the projects selected for loan guarantees help achieve the desired results.

DOE has taken steps to implement the LGP for applicants but has treated applicants inconsistently and lacks mechanisms to identify and address their concerns. Among other things, DOE increased the LGP's staff, expedited procurement of external reviews, and developed procedures for deciding which projects should receive loan guarantees. However, GAO found:

- DOE's implementation of the LGP has treated applicants inconsistently, favoring some and disadvantaging others. For example, DOE conditionally committed to issuing loan guarantees for some projects prior to completion of external reviews required under DOE procedures. Because applicants must pay for such reviews, this procedural deviation has allowed some applicants to receive conditional commitments before incurring expenses that other applicants had to pay. It is unclear how DOE could have sufficient information to negotiate conditional commitments without such reviews.
- DOE lacks systematic mechanisms for LGP applicants to administratively appeal its decisions or to provide feedback to DOE on its process for issuing loan guarantees. Instead, DOE rereviews rejected applications on an ad hoc basis and gathers feedback through public forums and other outreach efforts that do not ensure the views obtained are representative.

Until DOE develops implementation processes it can adhere to consistently, along with systematic approaches for rereviewing applications and obtaining and addressing applicant feedback, it may not fully realize the benefits envisioned for the LGP.

Contents

Letter		1
	DOE Has Broadly Indicated the Program's Direction but Is Not Well Positioned to Evaluate Progress	6
	DOE Has Taken Steps To Implement the LGP but Has Treated Applicants Inconsistently and Lacks Mechanisms to Identify and Address Applicants' Concerns	7
	Conclusions	12
	Recommendations for Executive Action	12
	Agency Comments	13
Appendix I	Scope and Methodology	15
Appendix II	Performance Measures for the LGP	17
Appendix III	Application Review Process	18
Appendix IV	Standardized Fees Associated with Obtaining a Loan Guarantee, by Solicitation	22
Appendix V	Loan Guarantee Amounts Available and Amounts Applicants Sought for Technology Categories Targeted in Solicitations	23
Appendix VI	Comments from the Department of Energy	24
	GAO Comments	29
Appendix VII	GAO Contact and Staff Acknowledgments	31

Table

Table 1: Technology Categories Targeted by Solicitations Issued for the LGP and Amounts Available under the Solicitations, as of April 2010	4
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Figures

Figure 1: 2008 Solicitation for Energy Efficiency, Renewable Energy, and Advanced Transmission and Distribution Technologies	18
Figure 2: 2008 Solicitation for Coal-based Power Generation and Industrial Gasification Facilities That Incorporate Carbon Capture and Sequestration or Other Beneficial Uses of Carbon and for Advanced Coal Gasification Facilities	19
Figure 3: 2008 Solicitation for Nuclear Power Facilities	20
Figure 4: 2008 Solicitation for Front-End Nuclear Facilities	21

Abbreviations

CRB	Credit Review Board
DOE	Department of Energy
EPAct	Energy Policy Act of 2005
FIPP	Financial Institution Partnership Program
GPRA	Government Performance and Results Act
LGP	Loan Guarantee Program
NETL	National Energy Technology Laboratory
Recovery Act	American Recovery and Reinvestment Act

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United States Government Accountability Office
Washington, DC 20548

July 12, 2010

The Honorable Byron L. Dorgan
Chairman
The Honorable Robert F. Bennett
Ranking Member
Subcommittee on Energy and Water Development
Committee on Appropriations
United States Senate

The Honorable Peter J. Visclosky
Chairman
The Honorable Rodney P. Frelinghuysen
Ranking Member
Subcommittee on Energy and Water Development
Committee on Appropriations
House of Representatives

Through calendar year 2009, the Department of Energy's (DOE) Loan Guarantee Program (LGP) received more than 170 applications seeking over \$175 billion in loan guarantees, generally to bring innovative energy technologies to market. Under normal economic conditions, companies can face obstacles in securing enough affordable financing to survive the "valley of death" between developing innovative technologies and commercializing them. Because the risks that lenders must assume to support new technologies can put private financing out of reach, companies may not be able to commercialize innovative technologies without government assistance. The financial crisis that emerged in late 2008, together with the associated economic decline, has further reduced access to capital markets for innovative energy technologies. In this constrained economic environment, even companies that might ordinarily rely on private financing are turning to the federal government for assistance.

Federal loan guarantee programs such as DOE's can help companies obtain affordable financing because the federal government agrees to reimburse lenders for the guaranteed amount if the borrowers default, which encourages lending by reducing the lenders' financial risks. In addition, to the extent that a federal loan guarantee signals confidence in a project, such guarantees can help companies raise capital from other sources, for example by selling equity. However, loan guarantee programs can also expose the government to substantial financial risks. In the past,

problems with loan guarantee programs have occurred, in part, because agencies did not exercise due diligence during the loan origination and monitoring processes.

Since the LGP was authorized under Title XVII of the Energy Policy Act of 2005 (EPAcT), its scope has expanded.¹ The act—specifically section 1703—originally authorized DOE to guarantee loans for projects that (1) use new or significantly improved technologies as compared with commercial technologies already in service in the United States and (2) avoid, reduce, or sequester emissions of air pollutants or man-made greenhouse gases. In February 2009, Congress passed the American Recovery and Reinvestment Act (Recovery Act), which amended Title XVII by adding section 1705.² Under section 1705, DOE may guarantee loans for projects using commercial technologies. Projects supported by the Recovery Act must employ renewable energy systems, electric power transmission systems, or leading-edge biofuels that meet certain criteria; begin construction by the end of fiscal year 2011; and pay wages at or above market rates.

The LGP's loan guarantee authority has also increased. In fiscal year 2007, Congress authorized up to \$4 billion in loan guarantees for projects that meet the criteria in section 1703. By fiscal year 2009, Congress had authorized an additional \$47 billion in loan guarantees for projects that meet these criteria.³ Congress did not appropriate funds to cover the associated credit subsidy costs—that is, the government's estimated net long-term cost, in present value terms, of direct or guaranteed loans over the entire period the loans are outstanding (not including administrative costs). Consequently, borrowers who obtain loan guarantees under section 1703 must pay fees to cover these costs. Under the Recovery Act, Congress has provided nearly \$4 billion to cover the credit subsidy costs

¹Pub. L. No. 109-58, Title XVII (Aug. 8, 2005).

²Pub. L. No. 111-5 (Feb. 17, 2009).

³Omnibus Appropriations Act, 2009, Pub. L. No. 111-8, Div. C, Title III (Mar. 11, 2009). The act provided that of the authorized amount of \$47 billion, \$18.5 billion shall be for nuclear power. Further congressional direction about the allocation of loan guarantee authority among technology categories was contained in the explanatory statement accompanying the act. Use of the funds appropriated for the program was subject to certain conditions, such as a requirement for DOE to submit an implementation plan to the appropriations committees prior to issuing any new solicitations inviting applications for loan guarantees.

for projects that meet the criteria in section 1705.⁴ While the Recovery Act appropriation did not specify the amount of new loan guarantee authority, DOE officials said that the department believes credit subsidy costs will average at least 15 percent of the value of loan guarantees. Accordingly, the nearly \$4 billion Recovery Act appropriation to pay credit subsidy costs could increase the amount of loans that the LGP guarantees by about \$26 billion, raising the program's total estimated loan guarantee capacity to about \$77 billion.

As of April 2010, the department had issued eight solicitations inviting applications for projects using various categories of technologies (see table 1). It had also issued one loan guarantee for \$535 million to Solyndra, one of the companies that responded to DOE's initial LGP solicitation issued in 2006, and had made nine conditional commitments to issue additional loan guarantees.⁵ The one loan guarantee and four of the conditional commitments were made under the Recovery Act; the other five conditional commitments were made under section 1703.

⁴Pub. L. No. 111-5, Div. A, Title IV (Feb. 17, 2009). Congress originally appropriated nearly \$6 billion to pay the credit subsidy costs of projects supported under section 1705, with the limitation that funding to pay the credit subsidy costs of leading-edge biofuel projects eligible under this section would not exceed \$500 million. Congress later authorized the President to transfer up to \$2 billion of the nearly \$6 billion to expand the "Cash for Clunkers" program. Pub. L. No. 111-47 (Aug. 7, 2009). The \$2 billion was transferred to the Department of Transportation, leaving nearly \$4 billion to cover credit subsidy costs of projects supported under section 1705.

⁵A conditional commitment is a commitment by DOE to issue a loan guarantee if the applicant satisfies specific requirements. The Secretary of Energy has the discretion to cancel a conditional commitment at any time for any reason prior to the issuance of a loan guarantee.

Table 1: Technology Categories Targeted by Solicitations Issued for the LGP and Amounts Available under the Solicitations, as of April 2010

Dollars in billions

Targeted technology category	Solicitation issuance date	Amount available
Mixed ^a	Aug. 8, 2006	\$4.0 ^b
Nuclear power facilities	July 11, 2008	18.5
Front-end nuclear facilities ^c	July 11, 2008	2.0 ^b
Coal-based power generation and industrial gasification facilities that incorporate carbon capture and sequestration or other beneficial uses of carbon and for advanced coal gasification facilities	Sept. 22, 2008	8.0
Energy efficiency, renewable energy, and advanced transmission and distribution technologies (EERE)	Oct. 29, 2008	10.0
EERE	July 29, 2009	8.5
Electric power transmission infrastructure projects	July 29, 2009	5.0 ^d
Commercial technology renewable energy generation projects under the Financial Institution Partnership Program (FIPP)	Oct. 7, 2009	5.0 ^d

Source: GAO presentation of DOE data.

^aThe 2006 mixed solicitation invited applications for all technologies eligible to receive loan guarantees according to the Energy Policy Act of 2005 except for nuclear facilities and oil refineries.

^bDOE received authorization to guarantee up to \$4 billion in loans in fiscal year 2007 and had planned to use this authority to support projects submitted in response to the 2006 mixed technology solicitation. On March 25, 2010, DOE informed Congress of its intention to use up to \$2 billion of its fiscal year 2007 loan guarantee authority for projects submitted in response to the 2008 front-end nuclear facilities solicitation.

^cFront-end nuclear facilities are to accelerate deployment of new uranium enrichment capacity and distribution.

^dThis amount is an estimate because the solicitation did not specify how much DOE would issue in loan guarantees. This estimate is based on the solicitation's stated plan to use \$750 million to cover credit subsidy costs and assumes credit subsidy costs of 15 percent, which DOE has told us is consistent with credit subsidy estimates to date.

For fiscal year 2011, DOE is seeking an additional \$36 billion in loan guarantee authority for nuclear power facilities and \$500 million to cover the credit subsidy costs for energy efficiency and renewable energy projects eligible under section 1703.⁶ DOE estimates that this \$500 million will cover the credit subsidy costs for about \$3 billion in loan guarantees.

⁶When asked if DOE plans to use the \$500 million to cover the credit subsidy costs for projects that are currently under review or for projects that apply under a new solicitation, the department stated that the \$500 million, if approved, will be used by the LGP at its discretion across the full spectrum of qualified energy efficiency and renewable energy projects.

We have an ongoing mandate under the 2007 Revised Continuing Appropriations Resolution to review DOE's execution of the LGP and to report our findings to the House and Senate Committees on Appropriations.⁷ Our previous reviews focused on the department's efforts to establish the tools needed to evaluate the program's effectiveness and to process applications. In 2007 and 2008, we recommended that the department take steps to further develop and improve its capabilities in these areas.⁸ In light of these recommendations and following discussions with your staffs, we assessed (1) the extent to which DOE has identified what it intends to achieve through the LGP and is positioned to evaluate progress and (2) how DOE has implemented the LGP for applicants.

To address these objectives, we analyzed Title XVII of EPCA, the Recovery Act, the Government Performance and Results Act (GPRA) and our prior work on GPRA, and DOE's program guidance and regulations. In addition, we interviewed relevant DOE officials and—to obtain a broad representation of views on DOE's implementation of the LGP—LGP applicants and trade association representatives. We selected the applicants and trade associations using a mix of criteria, including the amount of the loan guarantee requested and the relevant technology. Our review did not evaluate the technical or financial soundness of the projects that applied for DOE loan guarantees. In April 2010, we briefed your offices on the preliminary results of our review.

We conducted this performance audit from January 2009 through July 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. A further discussion of the scope of our review and the methods we used is presented in appendix I.

⁷Pub. L. No. 110-5 §20320(c) (Feb. 15, 2007).

⁸GAO, *The Department of Energy: Key Steps Needed to Help Ensure the Success of the New Loan Guarantee Program for Innovative Technologies by Better Managing Its Financial Risk*, GAO-07-339R (Washington, D.C.: Feb. 28, 2007); GAO, *Department of Energy: New Loan Guarantee Program Should Complete Activities Necessary for Effective and Accountable Program Management*, GAO-08-750 (Washington, D.C.: July 7, 2008).

DOE Has Broadly Indicated the Program's Direction but Is Not Well Positioned to Evaluate Progress

DOE has broadly indicated the direction of the LGP but has not developed all the tools necessary to evaluate progress. DOE officials have identified a number of broad policy goals that the LGP is intended to support, including helping to ensure energy security, mitigate climate change, jumpstart the alternative energy sector, and create jobs. Additionally, through DOE's fiscal year 2011 budget request and a mission statement for the LGP, the department has explained that the program is intended to support the "early commercial production and use of new or significantly improved technologies in energy projects" that "avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases, and have a reasonable prospect of repaying the principal and interest on their debt obligations."

To help operationalize such policy goals efficiently and effectively, principles of good governance identified in our prior work on GPRA indicate that agencies should develop associated performance goals and measures that are objective and quantifiable.⁹ These performance goals and measures are intended to allow comparison of programs' actual results with the desired results. Each program activity should be linked to a performance goal and measure unless such a linkage would be infeasible or impractical.

DOE has linked the LGP to two departmentwide performance goals:

- "Double renewable energy generating capacity (excluding conventional hydropower) by 2012."
- "Commit (conditionally) to loan guarantees for two nuclear power facilities to add new low-carbon emission capacity of at least 3,800 megawatts in 2010."

DOE has also established nine performance measures for the LGP (see app. II).

However, the departmentwide performance goals are too few to reflect the full range of policy goals for the LGP. For example, there is no measurable

⁹GAO, *Agencies' Annual Performance Plans under the Results Act: An Assessment Guide to Facilitate Congressional Decisionmaking*, GAO/GGD/AIMD-10.1.18 (Washington, D.C.: February 1998, ver. 1.); GAO, *The Results Act: An Evaluator's Guide to Assessing Agency Annual Performance Plans*, GAO/GGD-10.1.20 (Washington, D.C.: April 1998, ver. 1).

performance goal for job creation. The performance goals also do not reflect the full scope of the program's authorized activities. For example, as of April 2010, DOE had issued two conditional commitments for energy efficiency projects—as authorized in legislation—but the energy efficiency projects do not address either of the performance goals because the projects are expected to generate little or no renewable energy and are not associated with nuclear power facilities. Given the lack of sufficient performance goals, DOE cannot be sure that the LGP's performance measures are appropriate. Thus, DOE lacks the foundation to assess the program's progress, and more specifically, to determine whether the projects it supports with loan guarantees contribute to achieving the desired results.

DOE Has Taken Steps to Implement the LGP but Has Treated Applicants Inconsistently and Lacks Mechanisms to Identify and Address Applicants' Concerns

As the LGP's scope and authority have increased, the department has taken a number of steps to implement the program for applicants. For example, DOE has substantially increased the LGP's staff and in-house expertise, and applicants we interviewed have commended the LGP staff's professionalism. DOE officials indicated that, prior to 2008, staffing was inadequate to review applications, but since June 2008, the LGP's staff has increased from 12 federal employees to more than 50, supported by over 40 full-time contractor staff. Also, the LGP now has in-house legal counsel and project finance expertise, which have increased the program's capacity to evaluate proposed projects. In addition, in November 2009, the Secretary named an Executive Director, reporting directly to the Secretary, to oversee the LGP and to accelerate the application review process.¹⁰

Other key steps that DOE has taken include the following:

- DOE has identified a list of external reviewers qualified to perform legal, engineering, financial, and marketing analyses of proposed projects. Identifying these external reviewers beforehand helps to ensure that DOE will have the necessary expertise readily available during the review process. DOE officials said that the department has also expedited the procurement process for hiring these external reviewers.
- DOE developed a credit policies and procedures manual for the LGP. Among other things, the manual contains detailed internal policies and

¹⁰The Executive Director also oversees DOE's Advanced Technology Vehicles Manufacturing Loan Program.

procedures that lay out requirements, criteria, and staff responsibilities for determining which proposed projects should receive loan guarantees.

- DOE revised the LGP's regulations after receiving information from industry concerning the wide variety of ownership and financing structures that applicants or potential applicants would like to employ in projects seeking loan guarantees. Among other things, the modifications allow for ownership structures that DOE found are typically employed in utility-grade power plants and are commonly proposed for the next generation of nuclear power generation facilities.
- DOE obtained OMB approval for its model to estimate credit subsidy costs. The model is a critical tool needed for the LGP to proceed with issuing loan guarantees because it will be used to calculate each loan guarantee's credit subsidy cost and the associated fee, if any, that must be collected from borrowers. (We are evaluating DOE's process and key inputs for estimating credit subsidy costs in other ongoing work.)

Notwithstanding these actions, the department is implementing the program in a way that treats applicants inconsistently, lacks systematic mechanisms for applicants to appeal its decisions or for applicants to provide feedback to DOE, and risks excluding some potential applicants unnecessarily. Specifically, we found the following:

DOE has treated applicants inconsistently. Although our past work has shown that agencies should process applications with the goals of treating applicants fairly and minimizing applicant confusion,¹¹ DOE's implementation of the program has favored some applicants and disadvantaged others in a number of ways. First, we found that, in at least five of the ten cases in which DOE made conditional commitments, it did so before obtaining all of the final reports from external reviewers, allowing these applicants to receive conditional commitments before incurring expenses that other applicants were required to pay. Before DOE makes a conditional commitment, LGP procedures call for engineering, financial, legal, and marketing reviews of proposed projects as part of the due diligence process for identifying and mitigating risk. If DOE lacks the in-house capability to conduct the reviews, external reviews are

¹¹GAO, *Grants Management: Grants.gov Has Systemic Weaknesses That Require Attention*, GAO-09-589 (Washington, D.C.: July 15, 2009).

performed by contractors paid for by applicants.¹² In one of the cases we identified in which DOE deviated from its procedures, it made a conditional commitment before obtaining any of the external reports. DOE officials told us this project was fast-tracked because of its “strong business fundamentals” and because DOE determined that it had sufficient information to proceed. However, it is unclear how DOE could have had sufficient information to negotiate the terms of a conditional commitment without completing the types of reviews generally performed during due diligence, and proceeding without this information is contrary to the department’s procedures for the LGP.

Second, DOE treats applicants with nuclear projects differently from applicants proposing projects that employ other types of technologies. For example, DOE allows applicants with nuclear projects that have not been selected to begin the due diligence process to remain in a queue in case the LGP receives additional loan guarantee authority, while applicants with projects involving other types of technologies that have not been selected to begin due diligence are rejected (see app. III). In order for applicants whose applications were rejected to receive further consideration, they must reapply and again pay application fees, which range from \$75,000 to \$800,000 (see app. IV). DOE also provided applicants with nuclear generation projects information on how their projects ranked in comparison with others before they submitted part II of the application and 75 percent of the application fees. DOE did not provide rankings to applicants with any other types of projects. DOE officials said that applicants with nuclear projects were allowed to remain in a queue because of the expectation that requests would substantially exceed available loan guarantee authority and that the applications would be of high quality. According to DOE officials, they based this expectation on information available about projects that are seeking licenses from the Nuclear Regulatory Commission. DOE officials also explained that they ranked nuclear generation projects for similar reasons—and also to give applicants with less competitive projects the chance to drop out of the process early, allowing them to avoid the expense involved in applying for a loan guarantee. However, all of the solicitations issued through 2008 initially received requests that exceeded the available loan guarantee authority (see app. V), so nuclear projects were not unique in that respect. In addition, applicants with coal-based power generation and industrial

¹²LGP staff have generally conducted the financial reviews for the projects that have received conditional commitments or a loan guarantee to date.

gasification facility projects paid application fees equivalent to those paid by applicants with nuclear generation projects but were not given rankings prior to paying the second application fee (see app. IV). To provide EERE applicants with earlier feedback on the competitiveness of their projects, DOE instituted a two-part application for the 2009 EERE solicitation—a change from the 2008 EERE solicitation. DOE officials stated that they made this change based on lessons learned from the 2008 EERE solicitation. While this change appears to reduce the disparity in treatment among applicants, it remains to be seen whether DOE will make similar changes for projects that employ other types of technologies.

Third, DOE has allowed one of the front-end nuclear facility applicants that we contacted additional time to meet technical and financial requirements, including requirements for evidence that the technology is ready to move to commercial-scale operations, but DOE has rejected applicants with other types of technologies for not meeting similar technical and financial criteria. DOE has not provided analysis or documentation explaining why additional time was appropriate for one project but not for others.

DOE lacks systematic mechanisms for applicants to appeal its decisions or provide feedback to DOE. In its solicitations, DOE states that a rejection is “final and non-appealable.” Once a project has been rejected, the only administrative option left to an applicant under DOE’s documented procedures is to reapply and incur all of the associated costs. Nevertheless, DOE said that, as a courtesy, it had rereviewed certain rejected applications. Some applicants did not know that DOE would provide such rereviews, which appear contrary to DOE’s stated policy and have been conducted on an ad hoc basis.

DOE also lacks a systematic mechanism for soliciting, evaluating, and incorporating feedback from applicants about its implementation of the program. Our past work has shown that agencies should solicit, evaluate, and incorporate feedback from program users to improve programs.¹³ Unless they do so, agencies may not attain the levels of user satisfaction that they otherwise could. For example, during our interviews with applicants, more than half said they received little information about the

¹³GAO, *Transportation Research: Opportunities for Improving the Oversight of DOT’s Research Programs and User Satisfaction with Transportation Statistics*, GAO-06-917 (Washington, D.C.: Aug. 15, 2006).

timing or status of application reviews. Applicants expressed a desire for more information about the status of DOE's reviews and said that not knowing when a loan guarantee might be issued created difficulties in managing their projects—for example, in planning construction dates, knowing how much capital they would need to sustain operations, and maintaining support for their projects from internal stakeholders.

According to DOE officials, the department has reached out to stakeholders through its Web site, presentations to industry groups and policymakers, and other means. DOE has also indicated that it has changed the program to make it more user-friendly, based on lessons learned and applicant feedback. For example, unlike the 2008 EERE solicitation, the 2009 EERE solicitation includes rolling deadlines that give applicants greater latitude in when to submit their applications; a simplified part I application that provides a mechanism for DOE to give applicants early feedback on whether their projects are competitive; and delayed payment of the bulk of the “facility fee” that DOE charges applicants to cover certain program costs. While DOE said that these changes were based, in part, on feedback from applicants, because DOE has no systematic way of soliciting applicant feedback, the department has no assurance that the views obtained through its outreach efforts are representative, particularly since the means that DOE uses to obtain feedback do not guarantee anonymity. The department also has no assurance that the changes made in response to feedback are effectively addressing applicant concerns.

DOE risks excluding some potential applicants. Even though the Recovery Act requires that applicants begin construction by the end of fiscal year 2011 to qualify for Recovery Act funding, DOE has not yet issued solicitations for the full range of projects eligible for Recovery Act funding under section 1705. DOE has issued two solicitations specific to the Recovery Act for the LGP, but neither invites applications for commercial manufacturing projects, which are eligible under the act.¹⁴ While DOE has announced that it will issue an LGP solicitation for commercial manufacturing projects, it has given no date for doing so. The 2009 EERE solicitation provided an opportunity for some manufacturing applicants to receive Recovery Act funding, but because DOE combined

¹⁴The solicitations specific to the Recovery Act are the 2009 solicitations targeting electric power transmission infrastructure projects and commercial technology renewable energy generation projects.

the Recovery Act's requirements with the original section 1703 requirements, applicants with commercial manufacturing projects were excluded. DOE officials told us that they combined the requirements to ensure that projects that are initially eligible under section 1705 but that fail to start construction by the deadline can remain in the LGP under section 1703.

Conclusions

DOE has made substantial progress in building a functional program for issuing loan guarantees under Title XVII of EPAct; however, it may not fully realize the benefits envisioned for the LGP until it further improves its ability to evaluate and implement the program. Since 2007, we have been reporting on DOE's lack of tools necessary to evaluate the program and process applications and recommending that the department take steps to address these areas. While DOE has identified broad policy goals and developed a mission statement for the program, it will lack the ability to implement the program efficiently and effectively and to evaluate progress in achieving these goals and mission until it develops corresponding performance goals. As a practical matter, without such goals, DOE will also lack a clear basis for determining whether the projects it decides to support with loan guarantees are helping achieve the desired results, potentially undermining applicants' and the public's confidence in the legitimacy of those decisions. Such confidence could also be undermined by implementation processes that do not treat applicants consistently—unless DOE has clear and compelling grounds for disparate treatment—particularly if DOE skips steps in its review process prior to issuing conditional commitments or rereviews rejected applications for some applicants without having an administrative appeal process. Furthermore, while DOE has taken steps to increase applicants' satisfaction with the program, it cannot determine the effectiveness of those efforts without systematic feedback from applicants that preserves their anonymity.

Recommendations for Executive Action

To improve DOE's ability to evaluate and implement the LGP, we recommend that the Secretary of Energy take the following four actions:

- Direct the program management to develop relevant performance goals that reflect the full range of policy goals and activities for the program, and to the extent necessary, revise the performance measures to align with these goals.

-
- Direct the program management to revise the process for issuing loan guarantees to clearly establish what circumstances warrant disparate treatment of applicants so that DOE's implementation of the program treats applicants consistently unless there are clear and compelling grounds for doing otherwise.
 - Direct the program management to develop an administrative appeal process for applicants who believe their applications were rejected in error and document the basis for conclusions regarding appeals.
 - Direct the program management to develop a mechanism to systematically obtain and address feedback from program applicants, and, in so doing, ensure that applicants' anonymity can be maintained, for example, by using an independent service to obtain the feedback.

Agency Comments

We provided a draft of this report to DOE for review and comment. In its written comments, DOE stated that it recognizes the need for continuous improvement to its Loan Guarantee Programs as those programs mature but neither explicitly agreed nor disagreed with our recommendations. In one instance, DOE specifically disagreed with our findings: the department maintained that applicants are treated consistently within solicitations.

Nevertheless, the department stated that it is taking steps to address concerns identified in our report. Specifically, DOE pointed to the following recent or planned actions:

- *Performance goals and measures.* DOE stated that, in the context of revisions to its strategic plan, the department is revisiting the performance goals and measures for the LGP to better align them with the department's policy goals of growing the green economy and reducing greenhouse gases from power generation.
- *Consistent treatment of applicants.* DOE recognized the need for greater transparency to avoid the perception of inconsistent treatment and stated that it will ensure that future solicitations explicitly describe circumstances that would allow streamlined consideration of loan guarantee applications.
- *Appeals.* DOE indicated that its process for rejected applications should be made more transparent and stated that the LGP continues to implement new strategies intended to reduce the need for any kind of appeals, such as enhanced communication with applicants including more frequent

contact, and allowing applicants an opportunity to provide additional data at DOE's request to address deficiencies DOE has identified in applications.

While these actions are encouraging, they do not fully address our findings, especially in the areas of appeals and applicant feedback. We continue to believe that DOE needs systematic mechanisms for applicants to appeal its decisions and to provide anonymous feedback.

DOE's written comments on our findings and recommendations, along with our detailed responses, are contained in appendix VI. In addition to the written comments reproduced in that appendix, DOE provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Energy, and other interested parties. This report also is available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staffs have any questions concerning this report, please contact me at (202) 512-3841 or ruscof@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are listed in appendix VII.



Frank Rusco
Director, Natural Resources
and Environment

Appendix I: Scope and Methodology

To assess the extent to which the Department of Energy (DOE) has identified what it intends to achieve through the Loan Guarantee Program (LGP) and is positioned to evaluate progress, we reviewed and analyzed relevant provisions of Title XVII of the Energy Policy Act of 2005 (EPAcT), the American Recovery and Reinvestment Act of 2009 (Recovery Act); DOE's budget request documents; and Recovery Act planning information, as well as other documentation provided by DOE. We discussed strategic planning and program evaluation with cognizant DOE officials from the LGP office, the Office of the Secretary of Energy, the Office of the Chief Financial Officer, and the Credit Review Board (CRB) that is charged with coordinating credit management and debt collection activities as well as overall policies and procedures for the LGP. As criteria, we used the Government Performance Results Act (GPRA), along with our prior work on GPRA.

To evaluate DOE's implementation of the LGP for applicants, we reviewed relevant legislation, such as EPAcT and the Recovery Act; DOE's final regulations and concept of operations for the LGP; solicitations issued by DOE inviting applications for loan guarantees; DOE's internal project tracking reports; technical and financial review criteria for the application review process; minutes from CRB meetings held between February 2008 and November 2009; applications for loan guarantees; application rejection letters issued by DOE; and other various DOE guidance and procurement documents related to the process for issuing loan guarantees. We interviewed cognizant DOE officials from the LGP office, the Office of the Secretary of Energy, the Office of the Chief Financial Officer, the Office of Headquarters Procurement Services, and program offices that participated in the technical reviews of projects, including the Office of Electricity Delivery and Energy Reliability, the Office of Energy Efficiency and Renewable Energy, the Office of Nuclear Energy, and the National Energy Technology Laboratory (NETL). In addition, we interviewed 31 LGP applicants and 4 trade association representatives, using a standard list of questions for each group, to obtain a broad representation of views that we believe can provide insights to bolster other evidence supporting our findings. We selected the applicants and trade associations using a mix of criteria, including the amount of the loan guarantee requested and the relevant technology. As criteria, we used our prior work on customer service. We did not evaluate the financial or technical soundness of the projects for which applications were submitted.

We conducted this performance audit from January 2009 through July 2010 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to

Appendix I: Scope and Methodology

obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

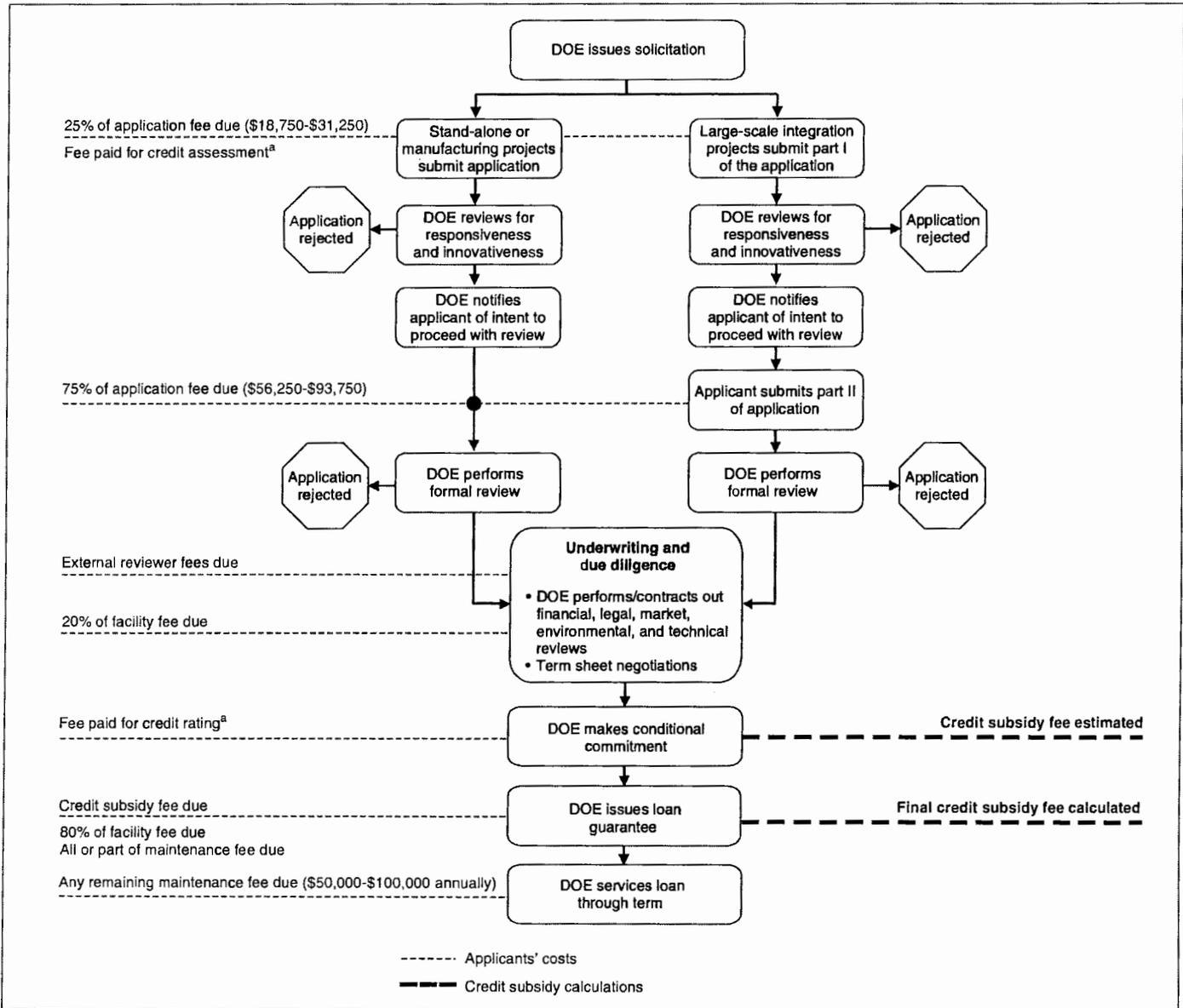
Appendix II: Performance Measures for the LGP

DOE has developed the following nine performance measures for the LGP:

- percentage of projects receiving DOE loan guarantees that have achieved and maintained commercial operations;
- contain the loss rate of guaranteed loans to less than 4 percent;
- contain the loss rate of guaranteed loans to less than 11.81 percent in fiscal year 2009 (11.85 percent for fiscal years 2010 and 2011) on a long-term portfolio basis;
- newly installed generation capacity from power generation projects receiving DOE loan guarantees;
- average cost per megawatt-hour for projects receiving DOE loan guarantees;
- forecasted greenhouse gas emissions reductions from projects receiving loan guarantees compared to 'business as usual' energy generation;
- forecasted air pollutant emissions (nitrogen oxides, sulfur oxides, and particulates) reductions from projects receiving loan guarantees compared to 'business as usual' energy generation;
- average review time of applications for Section 1705 guarantees; and
- percentage of conditional commitments issued to qualified applicants relative to plan.

Appendix III: Application Review Process

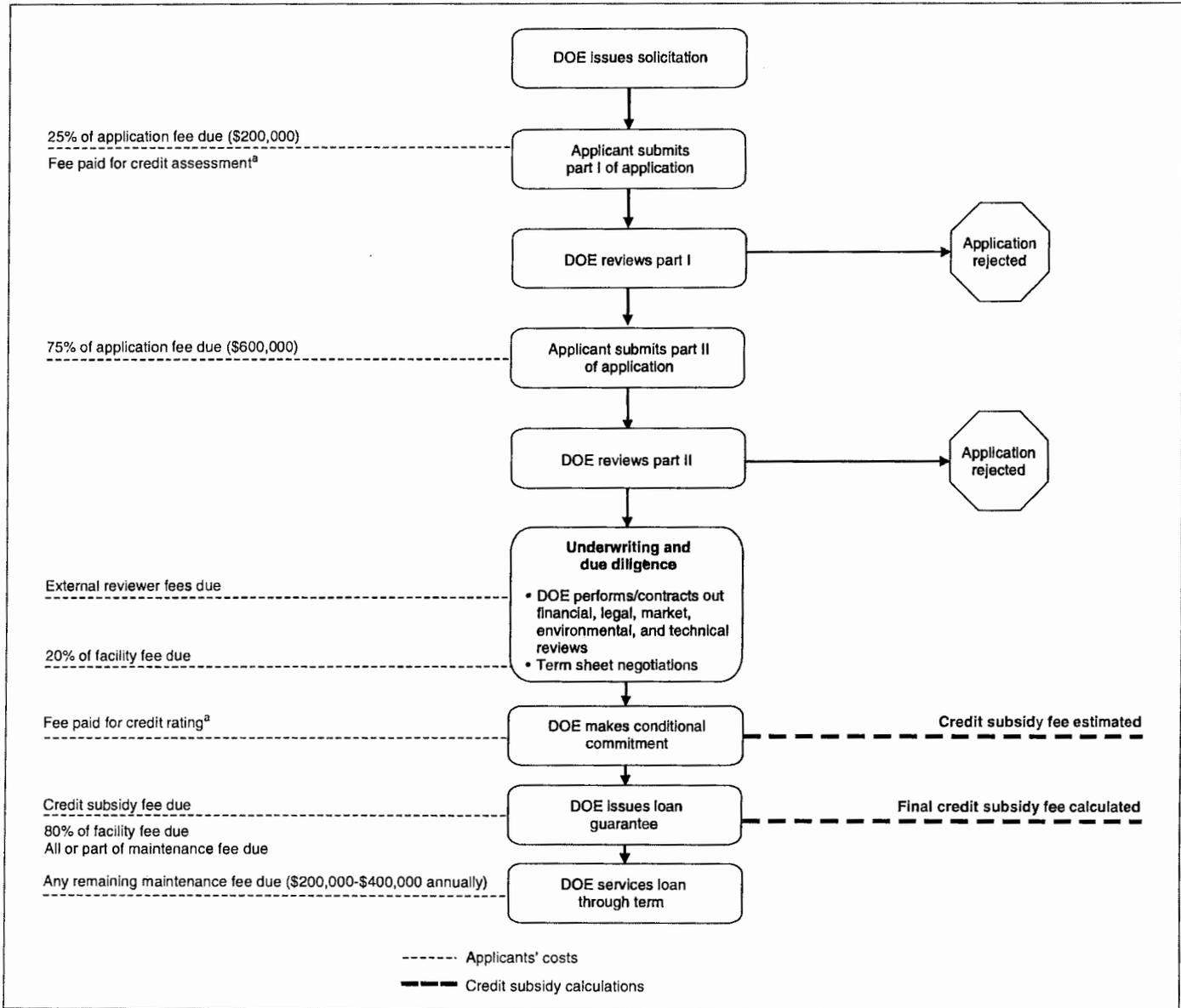
Figure 1: 2008 Solicitation for Energy Efficiency, Renewable Energy, and Advanced Transmission and Distribution Technologies



Source: GAO presentation of DOE data.

^aRequired for projects with estimated total costs exceeding \$25 million.

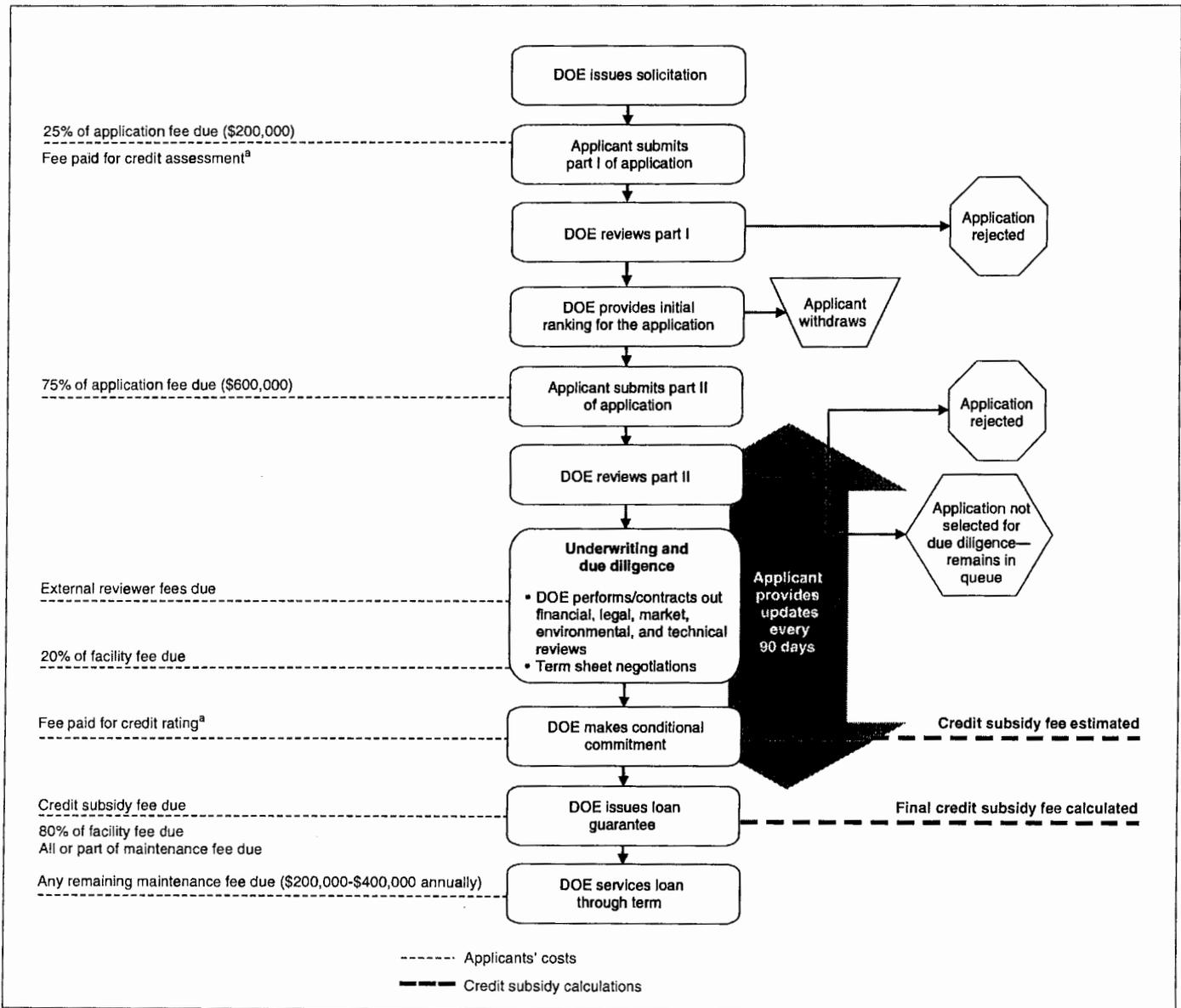
Figure 2: 2008 Solicitation for Coal-based Power Generation and Industrial Gasification Facilities That Incorporate Carbon Capture and Sequestration or Other Beneficial Uses of Carbon and for Advanced Coal Gasification Facilities



Source: GAO presentation of DOE data.

^aRequired for projects with estimated total costs exceeding \$25 million.

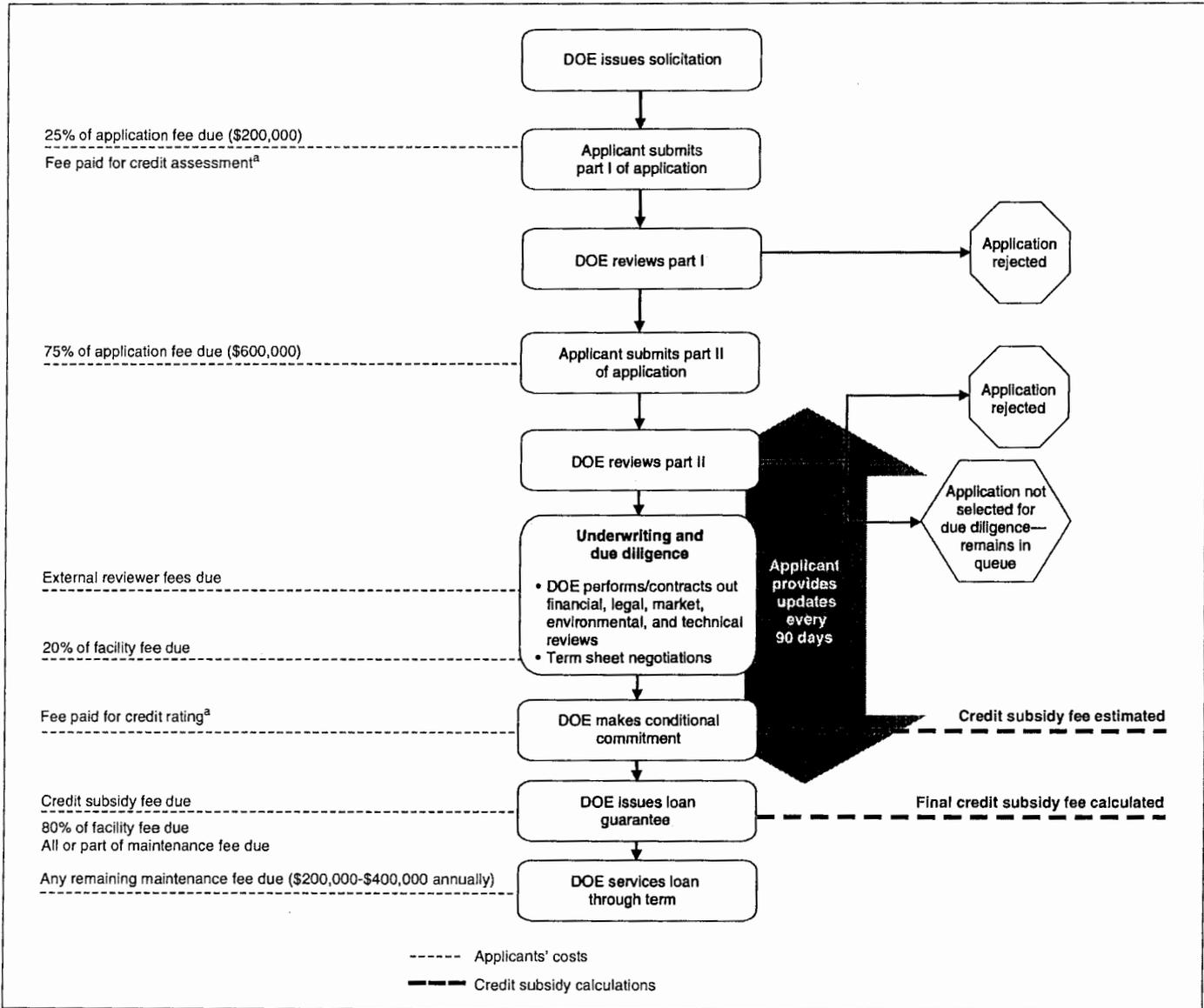
Figure 3: 2008 Solicitation for Nuclear Power Facilities



Source: GAO presentation of DOE data.

^aRequired for projects with estimated total costs exceeding \$25 million.

Figure 4: 2008 Solicitation for Front-End Nuclear Facilities



Source: GAO presentation of DOE data.

^aRequired for projects with estimated total costs exceeding \$25 million.

Appendix IV: Standardized Fees Associated with Obtaining a Loan Guarantee, by Solicitation

Solicitation	Application fee		Facility fee ^a	Annual loan maintenance fee
	1st payment of 25%	2nd payment of 75%		
2008 Front-end nuclear facilities	\$200,000	\$600,000	½ of 1% of guaranteed amount	\$200,000-400,000
2008 Nuclear power facilities	200,000	600,000	½ of 1% of guaranteed amount	200,000-400,000
2008 Coal-based power generation and industrial gasification facilities	200,000	600,000	½ of 1% of guaranteed amount	200,000-400,000
2008 Energy efficiency, renewable energy, and advanced transmission and distribution technologies (EERE)				
Loan guarantee amount:				
\$0 - 150,000,000	18,750	56,250	1% of guaranteed amount	50,000-100,000
Above \$150,000,000 - 500,000,000	25,000	75,000	\$375,000 + 0.75% of guaranteed amount	50,000-100,000
Above \$500,000,000	31,250	93,750	\$1,625,000 + 0.50% of guaranteed amount	50,000-100,000
2009 EERE				
Loan guarantee amount:				
\$0 - 150,000,000	18,750	56,250	1% of guaranteed amount	50,000-100,000
Above \$150,000,000 - 500,000,000	25,000	75,000	\$375,000 + 0.75% of guaranteed amount	50,000-100,000
Above \$500,000,000	31,250	93,750	\$1,625,000 + 0.50% of guaranteed amount	50,000-100,000
2009 Electric power transmission infrastructure projects	200,000	600,000	½ of 1% of guaranteed amount	200,000-400,000
2009 Commercial technology renewable energy generation projects under the Financial Institution Partnership Program (FIPP)	12,500	37,500	½ of 1% of guaranteed amount	10,000-25,000

Source: GAO presentation of DOE data.

^aAccording to agency documentation, this fee is intended to cover the LGP's cost of loan setup and associated legal and finance fees.

Appendix V: Loan Guarantee Amounts Available and Amounts Applicants Sought for Technology Categories Targeted in Solicitations

Dollars in billions

Targeted technology category	Solicitation issuance date	Amount available	Amount applicants sought
Mixed ^a	Aug. 8, 2006	\$4.0	\$8.6
Nuclear power facilities	July 11, 2008	18.5	93.2
Front-end nuclear facilities	July 11, 2008	2.0	4.0
Coal-based power generation and industrial gasification facilities	Sept. 22, 2008	8.0	18.6
Energy efficiency, renewable energy, and advanced transmission and distribution technologies (EERE)	Oct. 29, 2008	10.0	20.1
EERE	July 29, 2009	8.5	22.8 ^b
Electric power transmission infrastructure projects	July 29, 2009	5.0 ^c	4.3
Commercial technology renewable energy generation projects under the Financial Institution Partnership Program (FIPP)	Oct. 7, 2009	5.0 ^c	3.1

Source: GAO presentation of DOE data.

^aThe 2006 mixed solicitation invited applications for all technologies eligible to receive loan guarantees under the Energy Policy Act of 2005 except for nuclear facilities and oil refineries.

^bDOE is still accepting applications in response to the 2009 EERE solicitation, so the final total amount that applicants will seek is not yet known. Through November 2009, applicants were seeking a total of \$22.8 billion.

^cThis amount is an estimate because the solicitation did not specify how much would be issued in loan guarantees. This estimate is based on the solicitation's stated plan to use \$750 million to cover credit subsidy costs and assumes credit subsidy costs of 15 percent, which DOE has told us is consistent with credit subsidy estimates to date.

**Appendix VI: Comments from the Department
of Energy**

critical tool needed for the LGP to proceed with issuing loan guarantees because it will be used to calculate the amount of each loan guarantee's credit subsidy and the associated fee, if applicable.

While the report recognizes key steps that DOE has taken to implement the LGP program, it also discusses opportunities for improvement in LGP's performance goals and measures, the transparency of its treatment of loan applicants, and mechanisms for systematic feedback from applicants. The Department recognizes the need for continuous improvement to its Loan Guarantee Programs as those programs mature, and is taking steps to address the concerns noted in the report.

Enclosed are the Department's detailed responses to GAO's specific recommendations and separate technical and factual comments on specific language in the draft report. We look forward to working with your team on future engagements.

Sincerely,



Jonathan M. Silver
Executive Director of the Loan Programs
Office of the Secretary

Enclosures

U. S. Department of Energy
GAO-10-627 – “DEPARTMENT OF ENERGY: Further Actions Are Needed to Improve DOE’s Ability to Evaluate and Implement the Loan Guarantee Program

Response to GAO Recommendations for Executive Action

Technical and Factual Comments:

Recommendation 1: The Secretary of Energy should direct the program management to develop relevant performance goals that reflect the full range of policy goals and activities for the program, and to the extent necessary, revise the performance measures to align with these goals.

DOE Response: The Department recognizes the need for relevant and targeted performance metrics and is working to ensure that appropriate metrics are identified for Loan Guarantee Programs. Currently, the program evaluates a project based on the ability to optimize multiple metrics that are consistent with overall program objectives, and there is no mandate from Congress regarding a specific target for the number of jobs created. In the context of preparing the LGP’s contribution to the Department’s Strategic Plan, which is still under development, the LGP is revisiting its performance goals and measures to better align with the Department’s policy goals of growing the green economy and reducing green house gases in power generation.

Recommendation 2: The Secretary should direct the program management to revise the process for issuing loan guarantees to clearly establish what circumstances warrant disparate treatment of applicants so that DOE’s implementation of the program treats applicants consistently unless there are clear and compelling grounds for doing otherwise.

DOE Response: DOE disagrees with GAO’s assertion that applicants are treated inconsistently but recognizes the need for greater transparency to avoid the perception of inconsistent treatment. Currently, each solicitation states the process for submitting applications and criteria for approving loan guarantees. The Department believes that within each solicitation, the rules have been applied consistently, and no applicants have been disadvantaged. The Department will ensure that future solicitations explicitly describe circumstances that would allow for streamlined consideration of loan guarantee applications.

It is important to note that there is no one-size-fits-all approach across the various energy sectors, and processes may legitimately vary for the different energy sectors. One area highlighted by GAO was the ranking of the nuclear projects while not performing a similar ranking for other energy sectors. The LGP ranked nuclear generation projects because most nuclear power applications satisfied the requirements to proceed to due diligence, but the program did not have the loan authority to support all of the projects. A detailed analysis was required to differentiate those projects that had the strongest likelihood of readiness to proceed beyond the due diligence phase.

See comment 1.

See comment 2.

See comment 3.

See comment 3.

The LGP does not provide a comparable ranking to applicants under the energy efficiency/renewable energy solicitations because the loan authority is adequate to support all viable projects. However, DOE provides applicants under the energy efficiency/renewable energy solicitations with early feedback on the viability of their application and the opportunity to avoid 75% of the application fee by using a Part I and Part II application process.

See comment 3.

In the case of the fossil energy solicitation, DOE met with all eight of the advanced fossil project sponsors who submitted Part I applications. The Part I applicants were informed that the solicitation was significantly over-subscribed and that there was a strong possibility that a loan guarantee approved by DOE for the selected projects could be substantially lower than the amount requested. Five applicants chose to proceed and submit Part II applications. Four of the five were invited to final due diligence. DOE had no reason to rank the four remaining projects because the \$8.3 billion requested was in line with the authorized loan guarantee authority of \$8 billion.

Recommendation 3: The Secretary should direct the program management to develop an administrative appeal process for applicants who believe their applications were rejected in error and document the basis for conclusions regarding appeals.

See comment 4.

DOE Response: The Department believes that the current process for rejected applicants is working, but agrees that the process should be made more transparent to loan applicants. As GAO pointed out, DOE has reconsidered some previously rejected applications. In these situations, applicants have demonstrated to DOE that there may have been an error made in the interpretation of their data.

See comment 4.

More importantly, LGP continues to implement new strategies to increase efficiencies and improve the loan guarantee application process that should reduce the need for any kind of appeals to the final loan decisions. These strategies include enhanced communication with applicants including more frequent contact and greater transparency. Applicants are allowed to improve their applications by providing additional data at DOE's request. Applicants with Part I submissions denied further review are provided with written notification detailing the reasons for this determination. Briefings on rejected applications are given when requested. Additionally, we are improving our intake procedures, allowing for a formal dialogue between DOE and the applicant and making decisions more quickly on applications and their readiness to move to Part II. On March 22, 2010, DOE instituted this new policy to allow applicants the opportunity to address deficiencies identified by DOE during the technical and financial review.

Recommendation 4: The Secretary should direct the program management to develop a mechanism to systematically obtain and address feedback from program applicants, and, in so doing, ensure that applicants' anonymity can be maintained, for example, by using an independent service to obtain the feedback.

See comment 5.

DOE Response: The Department agrees with the overall goal of this recommendation, but believes that use of a third-party to obtain feedback to preserve anonymity is not necessary. LGP stakeholders have not been reticent about expressing their views on the program. The Department believes that the LGP staff should be accountable for obtaining feedback from stakeholders. DOE has already implemented a variety of processes for soliciting, evaluating, and incorporating feedback from applicants about its administration of the program. DOE has proactively reached out to stakeholders using a myriad of venues. Program representatives have addressed renewable energy groups, banking and finance organizations, and state policy makers. In the process to update the LGP Final Rule, DOE received over 1,000 comments from stakeholders. DOE routinely meets with prospective and current applicants. Through Requests for Information, DOE seeks out opinions of the energy and finance industries on new solicitations. DOE also maintains the LGPO website which is a source for informing the public and potential applicants.

See comment 5.

DOE is constantly using information it gathers from lessons learned to improve procedures and increase efficiencies and effectiveness. For example, the Department shortened the intake and screening procedures, and is now in the process of automating and standardizing the application submission process.

The following are GAO's comments on the Department of Energy's (DOE) letter dated June 17, 2010.

GAO Comments

1. DOE appears to concur with the spirit of our recommendation. Best practices for program management indicate that DOE should have objective, quantifiable performance goals and targets for evaluating its progress in meeting policy goals DOE has identified for the LGP. Such goals and targets are important tools for ensuring public accountability and effective program management.
2. Our finding about inconsistent treatment of LGP applicants is based on information obtained from applicants corroborated by documents from DOE. In the instance we identified in which DOE made a conditional commitment before obtaining any of the required external reports, the external reviewers were not fully engaged until after DOE had negotiated the terms of the conditional commitment, which is contrary to DOE's stated procedures and provided an advantage to the applicant. Other applicants who received conditional commitments before completion of one or more of the reports called for by DOE's due diligence procedures also had a comparative advantage in that they were able to defer some review expenses until after DOE had publicly committed to their projects. We continue to believe that DOE should revise the process for issuing loan guarantees to treat applicants consistently unless there are clearly established and compelling grounds for making an exception.
3. We agree that there may be grounds for treating applicants differently depending on the type of technology they employ but do not believe that DOE has adequately explained the basis for the differences among the solicitations. For example, DOE's response does not address the possibility that lack of ranking information for fossil energy projects, combined with the knowledge that the solicitation was significantly oversubscribed, could have factored into applicants' decisions to drop out of the process, especially given the relatively high fees associated with submitting part II of the application.
4. We disagree that DOE's current process for rereviewing rejected applications is working. As we state in our report, some applicants did not know that DOE would provide rereviews. While we are encouraged by DOE's efforts to reduce the need for appeals, we believe that an administrative appeal process would allow DOE to better plan and manage its use of resources on rejected applications.

5. We applaud DOE's efforts to reach out to stakeholders and to use lessons learned to improve procedures and increase efficiencies and effectiveness. However, we continue to believe that DOE needs a systematic mechanism for applicants to provide anonymous feedback, whether through use of a third party or other means that preserves confidentiality. Several applicants we interviewed expressed concern that commenting on aspects of DOE's implementation of the LGP could adversely affect their current or future prospects for receiving a loan guarantee. Systematically obtaining and addressing anonymous feedback could enhance DOE's efforts to improve procedures and increase efficiencies and effectiveness.

Appendix VII: GAO Contact and Staff Acknowledgments

GAO Contact

Frank Rusco (202) 512-3841 or ruscof@gao.gov

Staff Acknowledgments

In addition to the individual named above, Karla Springer, Assistant Director; Marcia Carlsen; Nancy Crothers; Marissa Dondoe; Brandon Haller; Whitney Jennings; Cynthia Norris; Daniel Paepke; Madhav Panwar; Barbara Timmerman; and Jeremy Williams made key contributions to this report.

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Department of Energy

Washington, DC 20585

AUG 20 2010

The Honorable Arnold Schwarzenegger
Governor of California
State Capitol
Sacramento, California 95814

Dear Governor Schwarzenegger:

Thank you for your July 22, 2010, letter to Secretary Chu, regarding the Department of Energy's (DOE) Loan Guarantee Program (LGP). In your letter, you requested that DOE expedite its review of projects sited in California which are seeking both Investment Tax Credit Cash Grants (ITC Cash Grant) and a federal loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPAAct). The Secretary has asked me to reply to your letter.

As you know, the loan guarantee program was authorized under the Energy Policy Act of 2005. However, no loans were issued under the prior administration. Since this administration took office, we have made more than \$23 billion in conditional loan commitments to 18 different companies. As a reference point, the largest single year for U.S. clean energy project finance was \$19 billion, so we feel good about our early progress. Over the last year, we have also been able to build a strong, experienced team. We now have approximately 115 project finance professionals working in connection with the program, up from 15 in 2008. We have streamlined our applications process, our environmental review processes, and our credit review analytics. We continue to improve our processes every day. We are confident in our ability to move from two deals a month up to four to five deals a month as we enter the fall.

The loan program is a competitive process. The California projects have the opportunity to compete in this process, head to head with other applicants. Each project goes through three stages—general eligibility requirements are reviewed in Part I of the application process; eligible applications are invited to submit a more detailed Part II application; then successful Part II applications are invited into detailed due diligence. As of today, 12 out of 19 California-based solar and wind projects that have applied under the Energy Efficiency, Renewable Energy and Advanced Transmission and Distribution Technologies (2009) Solicitation have either been invited to submit a Part II application, are under Part II review or have been invited to detailed due diligence. Two California-based projects have withdrawn their applications and several were rejected because they did not meet the statutory criteria or competitive requirements for the loan guarantee program.

We are well aware of the ITC issue, but we do not believe that the loan status has a major bearing on whether the project will seek to qualify for an ITC grant. ITC Cash Grants are generally available to eligible property that is either placed in service between January 1, 2009 and December 31, 2010, or commences construction during that period and is placed in service by specified deadlines. Treasury guidelines include a "safe harbor" provision, which defines the



due diligence and underwriting process for such projects, but they should be able to meet the 1603 safe harbor for commencement of construction without action from the LGPO.

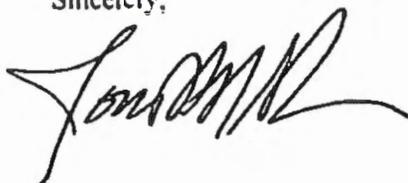
To clarify LGP's rules regarding multiple applications and projects by an individual company, under Section 609.3(a) of LGP's Final Rule, 10 CFR Part 609, for any specific Solicitation, an Applicant may submit only one Application for a project employing a particular innovative technology. That is, an Applicant may not submit Applications for multiple projects using the same innovative technology but may submit separate Applications for projects using different technologies. In addition, projects are generally located at a single project site. However, LGP may, at its discretion, consider an Application for a project using a particular innovative technology that proposes two or more locations in the United States if those locations are integral components of a unitary plan. Applicants seeking a loan guarantee for a single technology located on multiple sites must identify each of the locations in their Application and provide justification as to how the selected sites are part of a cohesive energy project. Please note further that under open Solicitations for commercial (as opposed to innovative) technology projects under Section 1705 of EAct, applicants are permitted to submit applications for multiple projects using the same technology.

LGP strives to support all projects that fulfill the program's statutory objectives, as outlined in Title XVII of EAct, and that comply with the requirements set forth in the applicable Solicitation. Once a proposed project has been determined to be eligible and accepted for due diligence, it is evaluated on its technical, financial and legal merits in a rigorous underwriting process. In addition, before a loan guarantee may be issued for a project, the Secretary (or his designee) must determine that there is a "reasonable prospect of repayment," as required by Section 1702(d) (1) of EAct.

The Department is committed to promoting the objectives of the Title XVII program. The LGP is dedicated to accelerating the commercial use of technologies that will help sustain economic growth, yield environmental benefits, and produce a more stable and secure energy supply, while maintaining program objectivity and protecting the interests of the American taxpayer. We recognize the urgency of the matter at hand and are working to expeditiously implement the LGP.

If we can be of further assistance, please do not hesitate to contact me or Ms. Amelia Jenkins, Principal Deputy Assistant Secretary for Congressional and Intergovernmental Affairs at (202) 586-5450.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jonathan M. Silver', written in a cursive style.

Jonathan M. Silver
Executive Director of the Loan Programs
Office of the Secretary

UNITED STATES DEPARTMENT OF ENERGY
1000 INDEPENDENCE AVE., SW
WASHINGTON, DC 20585

OFFICIAL BUSINESS

10

The Honorable Arnold Schwarzenegger
Governor of California
State Capitol
Sacramento, California 95814

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GOVERNOR ARNOLD SCHWARZENEGGER

July 22, 2010

The Honorable Steven Chu
Secretary of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Re: Request for expedited review of California projects seeking Department of Energy Loan Guarantee

Dear Mr. Secretary,

This has already been a remarkable year – California's 33 percent Renewable Portfolio Standard, the President's clean energy goals and federal stimulus dollars have all combined to stimulate interest and investment to shift our energy grid away from fossil fuels to clean and renewable energy sources. In California, we have over 20 large-scale solar and wind energy plants ready to break ground this year – these projects would generate more than 9,000 megawatts of clean power and create over 12,000 jobs in the parts of California that need it most.

While we have seen some significant progress, I am concerned that if these renewable energy projects are to become a reality, they must have financial assistance from both the Treasury grants in-lieu of tax credits (ITC grants) and the Department of Energy (DOE) Loan Guarantee Program. Thus, I am asking you to expedite the issuance of DOE loan guarantees, especially for large-scale California projects seeking grant funds from the Treasury's ITC grants. Without immediate and urgent attention from the DOE, many of these projects will not be financed and built. This would result in significant missed opportunities for demonstrating the success of the American Recovery and Reinvestment Act (ARRA) through increased job creation, private investment, greenhouse gas reductions and energy security and independence that these projects would otherwise provide.

If these projects do not begin significant construction by December 31, 2010, they will miss out on approximately \$5 to \$10 billion in ITC grants made available through ARRA. Of these 20, we are conservatively expecting to permit between eight and twelve big (200 megawatt plus) projects this year alone. And, in addition to these large scale projects, there are also another 30 smaller projects (200 megawatts and below) seeking approval to build here in California in time to qualify for ITC grants.



The Honorable Steven Chu
July 22, 2010
Page two

Many of these projects are also seeking a loan guarantee from DOE, and tell us that they are not financeable without both the ITC cash grants and the DOE's loan guarantee. When my staff met with Jonathan Silver, the head of your loan guarantee program, in May, he indicated that the current plan is to issue only two loan guarantees per month, and to accelerate issuance next year to perhaps five per month. At that time he also indicated that he preferred a small low-to-no risk portfolio of projects with a clear balance between different types of generation (wind, geothermal and solar) and with only one project issued to any given company.

We fully recognize the significant challenges that Mr. Silver faces with recruiting a staff and setting up policy guidelines for consistent and well managed operations. However, under DOE's current plan, between now and November – when projects must close financing – the number of projects across the nation with completed loan guarantees, both large and small, will only be around ten. This leaves many good renewable energy projects without financing, and certainly skews against California's efforts – which are naturally biased toward our plentiful solar resources – and against several very accomplished companies who plan to build more than one project this year.

I thank you and your staff for your tremendous work and for the loan guarantee offered to BrightSource's Ivanpah project, but hope that you can understand our concerns about many other equally well-structured companies and projects. This is an important moment; it is a unique chance for us to both stimulate job creation and advance our state and national goal of cleaner energy generation and production.

Here in California, we've made urgent efforts on the state-level task of issuing permits to construct and operate. Of the 20 projects I mentioned, all are expected to complete the various multiple, complex and exacting land-use reviews to receive a definitive yes or no action on a permit in time to qualify for ITC grants. We've made a number of extraordinary efforts to complete these land use procedures, but without sacrificing any of California's environmental values and legal requirements:

- Increased staff resources, including my appointment of two full time advisors who report directly to me and focus specifically on shepherding large-scale renewable projects through the process as well as appointing two new Energy Commissioners focused on renewables siting cases.
- Worked with federal partners, including Department of the Interior Secretary Ken Salazar's staff to find permit problems early and promptly fix them. A joint body – the Renewable Energy Policy Group – was created by an MOU between Secretary Salazar and myself signed in October of 2009, and now meets every two weeks both in person and by phone.
- Created a new multi-project endangered species program. This program allows projects to pay for any impacts on sensitive habitats and endangered species, and shed their liability. The state and federal governments then use this money for large conservation programs.

The Honorable Steven Chu
July 22, 2010
Page three

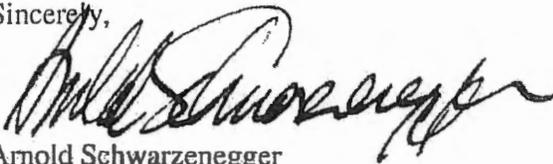
- Worked closely with utilities, transmission approval agencies and project applicants to coordinate interconnection planning and permitting in a timely fashion, linked to land use permitting.
- Developed a joint state-federal legal team to review environmental permits to ensure that they don't create legal liabilities or invite litigation.

And because of our hard work, we are seeing some significant progress and great successes:

- The US Forest Service issued a Record of Decision to allow the Sunrise Powerlink project to move forward. This transmission line will run from the coast, where the consumers live, to the Imperial Valley with all of its sun and geothermal power potential. We're already discussing the groundbreaking for early fall.
- The US Fish and Wildlife Service has issued a favorable biological opinion clearing the way for the Tehachapi Renewable Power Transmission Line, which will run from wind and solar fields in Kern County through the Antelope Valley (with even more solar potential) into Los Angeles.
- The groundbreaking for the Alta-Oak Creek Wind Project, set for next week, means 800 megawatts of peak renewable power will be available and on-line in the next year and a half.
- The California Energy Commission this week issued the Presiding Member's Proposed Decision endorsing the construction of the Beacon Solar Energy Project, with a projected peak generation capacity of 250 megawatts. Currently, the world's largest solar plant is only 160 megawatts.

We want to continue to build on this progress and hope that you can inspire your loan guarantee program leadership and staff to the same degree of urgency regarding this important and historic task. If you or your staff would like to discuss this issue further, please do not hesitate to contact me or my Renewable Energy Advisors, Michael Picker and Manal Yamout, who can be reached at (916) 445-7665.

Sincerely,



Arnold Schwarzenegger

/vw

cc: The Honorable Dianne Feinstein
The Honorable Barbara Boxer
The Honorable Harry Reid
The Honorable Nancy Pelosi

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DOJ Asks Anti-Nuke Group To Drop Los Alamos Lawsuit

BY CHRIS HOLLY

The Justice Department has asked a New Mexico antinuclear group to drop its lawsuit asking a federal court to stop construction of a massive plutonium facility at Los Alamos National Laboratory until the Energy Department conducts a new environmental review to assess major changes in the plant's design, saying DOE has decided to conduct a supplemental review of the project and thus the issue raised in the suit is not ripe for judicial review.

In a September 17 letter to Los Alamos Study Group attorney Thomas Hnasko, DOJ trial attorney John Tustin said the National Nuclear Security Administration's (NNSA) decision to conduct a supplemental environmental impact statement (SEIS) for the \$4 billion plutonium facility—known as the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF)—means that NNSA has not yet completed its National En-

(Continued on p. 2)

Renewable, Nuclear Officials Fault OMB On Loan Guarantees

BY GEORGE LOBSENZ

Amid supportive remarks and actions by key senators, renewable and nuclear energy officials Thursday firmly fingered the White House Office of Management and Budget as a major impediment to the success of the Energy Department's loan guarantee program for clean energy technologies, saying OMB officials are imposing unreasonable and excessive credit subsidy fees on companies seeking federal financial support.

At a hearing called by the Senate Energy and Natural Resources Committee, the industry officials charged that the high credit subsidy fees—which loan applicants must pay up front to DOE to cover the risk of default—are based on faulty “one-size-fits-all” OMB analyses that assume the same default rate by all kinds of innovative energy projects, even though private market analysts recognize that differing projects clearly pose different loan payback risks.

For example, a top official with First Solar Inc., the nation's leading photovoltaic (PV) manufacturer and project developer, said the OMB's assumed loan payback—or “recovery rate”—of 55 percent

(Continued on p. 3)

PHMSA To Propose ‘Hard’ Pipe Integrity Standards

The head of the Transportation Depart-

BY JOHNATHAN RICKMAN

ment's pipeline safety agency told Congress Thursday she intends to propose “hard” federal leak detection rules to replace current regulations giving oil and natural gas pipeline operators substantial discretion in carrying out their pipeline integrity management programs.

And in other testimony at a hearing called by the House Energy and Commerce Committee's subcommittee on energy and environment, National Transportation Safety Board (NTSB) Vice Chairman Christopher Hart said

recent NTSB investigations have revealed that

the current system of allowing companies to craft their own pipeline leak detection standards has “broken down.”

Hart also said the NTSB, the independent federal agency responsible for investigating pipeline accidents, in recent months has uncovered “indications” that DOT's Pipeline and Hazardous Materials Safety Administration's (PHMSA) scrutiny of operators' risk-based pipeline integrity management programs “has been lacking and has failed to detect flaws and weaknesses in

such programs.

“PHMSA... must determine whether operators are correcting the programs as needed,” said Hart.

“It's a good system, but it imposes huge responsibilities on the operators and PHMSA and we have examples where that process broke down,” added Hart.

“The NTSB believes that to ensure effective risk-based integrity management programs are employed throughout the pipeline industry, PHMSA must establish an aggressive oversight program that thoroughly examines each operator's decision-making process for each element of its integrity management program.”

Under questioning by the panel's

(Continued on p. 2)

DOJ Asks Anti-Nuke Group To Drop Lawsuit... (Continued from p. 1)

vironmental Policy Act (NEPA) analysis of the project.

NEPA, the nation's bedrock environmental protection statute, requires federal agencies contemplating major actions to conduct extensive analyses to ensure that the proposed activities will not harm the environment.

DOE and NNSA—the department's semiautonomous weapons agency—think that the group's suit would fail in court because the federal Administrative Procedures Act blocks legal challenges of projects for which environmental reviews remain incomplete, Tustin said.

"Because the NNSA has not completed its NEPA analysis of the CMRR project, it is the [government's] position that your complaint is not ripe for judicial review," Tustin said, adding that DOJ plans to ask the court to dismiss the lawsuit on those grounds if the anti-nuclear group fails to withdraw its complaint.

In a Wednesday response, however, Hnasko rejected DOJ's request to withdraw the lawsuit, saying that NNSA for years has relied and continues to rely on a Feb. 12, 2004, record of decision (ROD) on the project as a "final agency action" under NEPA—as reflected in the agency's fiscal year 2011 budget request to Congress for funds to support the CMRR-NF.

Because the latest designs for the CMRR-NF have dramatically changed from the design analyzed in the 2004 ROD, that document "is no longer a final agency action," Hnasko said in the letter.

"This belated offer to prepare an SEIS constitutes an acknowledgement that [NNSA is] conducting a major federal action significantly affecting the quality of the human environment without an applicable environmental impact statement," Hnasko continued. "We therefore respectfully request that [NNSA] halt all further expenditures on the [CMRR-NF] until an applicable, adequate EIS is prepared and a new ROD is issued."

In its August 16 complaint, filed in the U.S. District Court for the District of New Mexico, Los Alamos Study Group said DOE and NNSA are continuing to rely on a 2003 environmental review despite huge changes in the planned size and scope of the CMRR-NF over the past seven years.

In particular, due to increased security and earthquake safety requirements, the lawsuit said NNSA years ago abandoned its 2003-vintage plan for a relatively small above-ground facility and is now contemplating a far larger underground structure that would require digging down 125 feet to remove a 50-foot-thick layer of volcanic ash under the project site.

The lawsuit said the removal of the ash is necessary because it could significantly shift during an earthquake, potentially destabilizing the CMRR-NF, which will hold several tons of plutonium for nuclear weapons production.

And in what appeared to be a new disclosure, the lawsuit said DOE and NNSA are considering using the estimated 400,000 cubic yards of excavated volcanic ash to cap two old waste disposal sites at Los Alamos that contain 14 million cubic feet of nuclear and chemical residues left over from past nuclear weapons research at the lab.

The lawsuit noted that NNSA has repeatedly acknowledged to Congress—and to the Los Alamos Study Group in a July 30 letter—that the design and scope of the CMRR-NF have changed dramatically.

"However, [DOE and NNSA] have never analyzed their substantially changed nuclear facility project, with its additional project elements and its greatly expanded environmental impacts, in any EIS," the lawsuit said. "As a result, [DOE and NNSA] have been and are continuing to implement a novel nuclear facility project which differs substantially from, and has significantly different environmental impacts than, any alternative analyzed in any EIS, including the 2003 CMRR EIS."

Greg Mello, head of the Los Alamos Study Group, suggested last month that DOE and NNSA officials wanted to avoid doing an EIS for the project because it would fully expose the huge cost, building design issues—and the rationale for the massive structure—to public debate.

Antinuclear groups contend the CMRR-NF is unnecessary because the nation's nuclear arsenal is shrinking fast, meaning NNSA will not have to manufacture any new plutonium pits for warheads. The critics point out that nuclear weapons experts have told NNSA that current pits in warheads face no significant age-related degradation for decades, undermining NNSA's main argument for building a robust new CMRR-NF.

However, NNSA and the Obama administration contend the CMRR-NF is critical to efforts to downsize the U.S. nuclear arsenal because the nation currently has no sizable pit production capability in case new warheads are needed in the future.

In addition, the CMRR-NF is a political linchpin in Obama's strategy to win Senate Republican votes for a new nuclear weapons reduction pact with Russia by promising billions of dollars in new investment in the U.S. nuclear weapons complex. GOP senators say they will not vote for the pact unless Obama shows he is serious about modernizing U.S. warhead production capabilities.

PHMSA To Propose 'Hard' Pipe Integrity Standards... (Cont'd from p. 1)

chairman, Rep. Ed Markey (D-Mass.), PHMSA Administrator Cynthia Quarterman said her agency is planning to release within "the next few days" a notice of proposed rulemaking proposing to require "hard" standards for companies to follow to help detect and prevent pipeline system leaks and other problems.

"Isn't it clear that we need to establish mandatory standards to improve leak detection now? Will you commit to promulgating such standards within the next year?" asked Markey.

Quarterman said PHMSA's notice of proposed rulemaking will ask for industry comment on "whether we should put in place a particular standard that all companies have to meet across the board.

"We want to put in place a hard standard," added Quarterman.

The comments came as DOT Wednesday approved a "gradual restart" plan for Enbridge Energy Partners LP's Line 6B of its Lakehead System, which spilled more than 800,000 gallons of crude oil into Michigan's Talmadge Creek and the Kalamazoo River in July.

The hearing also occurred a week after the Obama administration proposed new legislation to reauthorize DOT's pipeline safety program and strengthen federal oversight of the nation's vast network of interstate and intrastate oil and natural gas pipelines. The reauthorization bill does not include the new leak detection standards to be proposed by PHMSA.

Renewable, Nuclear Officials Fault OMB... (Continued from p. 1)

ignored extensive credit risk experience in Europe showing that PV projects have solid repayment records on much bigger loans.

"I am not aware of a single default on \$8 billion in solar investment in Europe where leverage is much higher, said Jens Meyerhoff, president of utility systems business for First Solar, which has done most of its projects in Europe to date.

He urged U.S. officials to consider Europe's financing experience on solar projects, saying, "the risk profile around these generation projects is well defined in Europe. We don't have to re-invent the wheel."

The bottom line, Meyerhoff said, is that PV projects in Europe are getting much faster approval of much larger loan packages—enabling Europe to increase its solar generation and solar-related jobs much faster than the United States. He also said the bigger loans in Europe were cutting developer costs, translating into lower-priced electricity from solar farms in Europe.

Marvin Fertel, president of the Nuclear Energy Institute, made much the same complaint about OMB's assumed recovery rate in relation to reactor projects, saying it failed to recognize the generally strong loan repayment record compiled by utilities in building nuclear plants.

"We believe the methodology used by the executive branch inflates the credit subsidy cost well beyond the level required to compensate the federal government for the risk taken in providing the loan guarantee," he said.

He added that if OMB's 55 percent recovery rate were not adjusted, "you will probably preclude" loan guarantees for merchant nuclear generators and for large merchant power plants in general because the finances would not work.

Fertel's comments come as one merchant generator, NRG Energy, is believed to be a finalist for a DOE loan guarantee for a new nuclear plant in Texas.

The testimony fleshed out perceptions by many industry officials that the issuance of loan guarantees has been slowed by internal battles between DOE and OMB over how to calculate credit subsidy costs that must be paid up-front by companies seeking loan guarantees. Industry officials say high subsidy costs are a project killer for many smaller companies with limited financial resources, and even large energy companies have publicly balked at what they have hinted are excessive credit subsidy demands.

Expert witnesses at the hearing said addressing OMB's role in setting credit subsidy costs would be difficult because the agency is given primary responsibility for all federal loan issues under the Federal Credit Reform Act of 1990.

Committee Chairman Jeff Bingaman (D-N.M.) said OMB declined to send a witness to the hearing to answer the industry concerns—but he made it clear that he already was persuaded that Congress had to do something to limit OMB's role in the loan guarantee approval process.

Specifically, Bingaman has introduced legislation—dubbed the OMB "shot clock" legislation—that would set a 30-day limit on OMB reviews of loan guarantee applications; it also would curtail the agency's authority over approvals.

"After 30 days, the secretary [of energy] may issue a conditional commitment on the guarantee, taking into account any comments received from OMB, without any further authorization from OMB," said a summary of the legislation released by Bingaman.

However, in a key caveat, the summary said the legislation "would not affect the currently used OMB-approved subsidy cost model for loan guarantees or its application."

Other lawmakers also expressed concern about whether OMB had de facto veto power over the issuance of loan guarantees. Sen. Richard Burr (R-N.C.) repeatedly sought to pin down Jonathan Silver, executive director of DOE's loan programs office, as to

whether Energy Secretary Steven Chu had to get OMB approval on loan guarantees.

"Is he [Chu] required to get OMB sign-off?" Burr asked.

"That's not a yes and no answer," Silver replied. "There is a meaningful and important role that OMB plays in the calculation of the credit subsidy score."

"It is my understanding that OMB has the ability to say no," Burr pressed.

"We have never run into that situation..." Silver answered.

Industry officials at the hearing generally praised Chu, Silver and other new DOE officials brought in by the Obama administration for streamlining some of the other policy and bureaucratic problems that have resulted in the department issuing only 14 loan guarantees since the program was initiated in 2005.

However, they said several DOE policies were still significantly hampering the success of the loan guarantee program.

Notably, the industry officials and several senators noted that while DOE was authorized by Congress to provide loan guarantees covering up to 80 percent of project costs, the department generally was not providing that level of coverage.

Silver acknowledged that was the case, saying loan coverage in the private sector was typically between 40 and 60 percent and "we have tried to mirror" the private sector.

His remark drew criticism from Sen. Debbie Stabenow (D-Mich.) and Bingaman, both of whom said Congress specifically authorized loan guarantees of up to 80 percent because it wanted the government to fill the funding gap faced by clean energy developers who cannot get private financing for innovative technologies.

"I didn't realize we are mirroring the private sector," Stabenow said. "There is a gap that we are trying to fill that is different. The reason we put in the 80 percent was to allow things that are different."

Bingaman added: "The whole idea behind this loan guarantee program was to have the government come in and take on risk where the private sector was not willing to do so. I hope we can see this program fulfilling a larger role in accomplishing that in the future."

Silver responded: "You raise a very important point. I will go back to ensure we are providing as much capacity as we can. We are undertaking and underwriting projects that the private sector would not touch at all."

Several industry officials also faulted DOE for taking a "portfolio approach" in deciding what projects get loan guarantees. Silver explained the department wanted to assure the right mix of projects to ensure its overall loan portfolio met policy and risk objectives.

But industry officials said the portfolio approach added to the confusion and lack of transparency in DOE's loan guarantee program, with loan applicants too often lacking any clear understanding of what factors DOE really was considering in evaluating their applications. They called on DOE and Congress to ensure that the department decides on applications strictly on a "project-specific" basis that did not depend on what other types of projects were in DOE's portfolio.

Industry officials also called on DOE to change its policy regarding the interplay between the loan guarantee program and another renewable financing program under which the government is providing cash grants in place of tax credits for wind, solar and other projects. Renewable officials say the grant program has been crucial to cash-poor renewable developers during the recent economic downturn because there is scant interest in tax credits among hard-hit investment firms that have little in the way of taxable profits to offset.

However, Meyerhoff said current DOE policy requires renewable developers under some circumstances to effectively hand back some of that federally provided cash by pledging it as repayment for loan guarantees. "One program cannibalizes the other program," he said.

Sharp Buys 'Distributed-Scale' Solar Developer

Sharp Corp., one of the largest makers of photovoltaic panels, Wednesday announced the \$305 million acquisition of Recurrent Energy, a solar project developer with some 2,000 megawatts of smaller "distributed-scale" projects under way in North America and Europe.

The purchase of privately owned Recurrent for the first time gives Sharp the ability to bid for utility-scale solar projects, which is considered increasingly crucial for solar panel makers to secure demand for their output in the currently glutted photovoltaic (PV) market.

Sharp's major competitors—including First Solar Inc., SunPower and Suntech Power Holdings—all have recently acquired or expanded project development capabilities so they can win projects that will use their panels.

Sharp acknowledged its desire for project development expertise was key to its acquisition of San Francisco-based Recurrent.

"It is essential for Sharp to function as a developer in the photovoltaic field, in order to further expand its business in this

area," Toshishige Hamano, Sharp's executive vice president responsible for overseas business, said in a statement. "With Recurrent Energy's know-how as a developer, Sharp aims to become a total solutions company in the photovoltaic field, extending from developing and producing solar cells and modules to developing and marketing power generation plants."

Recurrent will retain its name, operating as a subsidiary of Sharp, and Recurrent Chief Executive Officer Arno Harris will retain his title and continue to lead the company, which previously was owned by Hudson Clean Energy Partners and Mohr Davidow Ventures, among other investors.

While large projects of several hundred megawatts have received most of the publicity of late in the solar sector, Harris has argued that his company's focus on distributed-scale projects offer significant advantages to utilities because they are easier to site, build and connect to the grid than big projects.

"One of the things that makes Recurrent Energy unique is our focus on

distributed-scale projects—our vision is to build a fleet of 2 MW-20 MW solar photovoltaic power plants connected directly to the existing distribution grid," Harris said in a recent post on his blog, Clean Energy Future.

"Distributed scale projects enjoy important advantages over large-scale projects—they're less complex, faster to interconnect and they bypass time-consuming land-use issues that often add years to project timelines."

Harris said the sale to Sharp would give Recurrent the resources it needed to grow faster.

Only about a sixth of Recurrent's 2,000 MW pipeline currently has long-term power contracts with utilities, a key for project financing. Those include some 330 MW, including 170 MW of projects with the Ontario Power Authority, 60 MW with the Sacramento Municipal Utility District and 50 MW with Southern California Edison and various joint development agreements in Europe and the Middle East.

FutureGen Alliance Taps Humphreys As New CEO

Turning to a veteran manager as the long-troubled FutureGen project faces new hurdles, the FutureGen Alliance board of directors announced Thursday it has appointed Kenneth Humphreys as its new chief executive officer.

Humphreys has been involved with the FutureGen Alliance since its inception—most recently serving as its managing director—and will succeed Michael Mudd, who recently announced his retirement.

As the new CEO of the FutureGen Alliance, Humphreys will lead the industrial consortium as it restructures its partnership with the Energy Department and the state of Illinois to help build one of the world's first near-zero emissions coal-fired power plants using carbon capture and storage (CCS) technology.

Unveiled with great fanfare by former

President George W. Bush in 2003, FutureGen was intended to demonstrate CCS technology with a 90 percent carbon-capture rate while generating electricity and producing hydrogen using technology that gasifies coal and burns the gas in a modified combustion turbine. However, DOE had all but abandoned the project by the start of 2008, citing ballooning cost estimates for the project.

FutureGen won new life in early August, when DOE announced it had awarded \$1 billion in American Recovery and Reinvestment Act funding to the alliance to repower Ameren Energy Resources' 200 megawatt coal-fired plant in Meredosia, Ill., capture 90 percent of the plant's carbon dioxide (CO₂) emissions and ship the greenhouse gas through a new pipeline to a storage site at Mattoon, Ill.—the site initially chosen by FutureGen for construction of a new

clean coal plant. The repowering project at the Ameren plant will use an advanced oxy-coal carbon-capture technology developed by Babcock & Wilcox Co. and Air Liquide Process and Construction Inc.

The project partners, working with the state of Illinois, had planned to establish a regional CO₂ storage site in Mattoon and to build a CO₂ pipeline network from Meredosia to Mattoon that would transport and store more than 1 million tons of captured CO₂ per year. The pipeline network and the Mattoon repository were expected to serve as the foundation for a new regional CO₂ storage network.

However, Mattoon in mid-August withdrew from the project, launching DOE and the industrial consortium on a new search for a suitable underground storage site for FutureGen's captured CO₂.

Will we see you at *The Energy Daily's 2nd Annual Transmission Siting Policy Summit* on October 5, 2010 at the Washington Marriott at Metro Center? Last year's summit sold out and space is limited. Register today at www.theenergydaily.com/2010TransmissionSitingSummit.

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EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

THE DIRECTOR

May 21, 2010

The Honorable Nancy Pelosi
Speaker of the House of Representatives
Washington, DC 20515

Dear Madam Speaker:

It is a priority of this Administration to take strong action to increase our energy security, reduce the threat of climate change, and position the United States to lead in the development of new clean energy industries. As President Obama has said, "The nation that leads the world in creating new sources of clean energy will be the nation that leads the 21st century global economy." I know that you share this view, and I thank you for your strong leadership on clean energy issues.

To achieve our clean energy goals, we need to invest now to develop and deploy the most promising technologies. That is why in the American Recovery and Reinvestment Act as well as in the Fiscal Year (FY) 2010 and FY 2011 budgets, the Administration has dedicated significant resources to spur the development of clean energy and the creation of new jobs.

The Department of Energy's (DOE) Title XVII Loan Guarantee Program is an important tool for promoting innovation in the energy sector across a broad portfolio of clean and efficient energy technologies. The President's FY 2011 Budget proposed providing \$500 million in new budget authority to support approximately \$3 to \$5 billion in energy efficiency and renewable energy projects in addition to providing \$36 billion in loan guarantee authority for nuclear power facilities in the Title XVII Program. To help achieve the Administration's clean energy objectives in the current fiscal year we request that the Congress provide a portion of this additional loan guarantee authority as part of the supplemental appropriations bill currently under consideration or as part of another appropriate legislative vehicle. Providing this authority now would accelerate our efforts to leverage private sector investment in clean energy projects and is integral to the President's efforts to move the Nation toward a clean energy economy that will reduce America's dependency on foreign energy sources and spur the creation of new jobs.

Specifically, the Administration urges the Congress to provide \$90 million in budget authority in the supplemental to support additional loan guarantees for renewable energy projects and efficient end-use energy technology projects. These funds will be available to support the credit

subsidy costs for a wide range of innovative solar, wind, geothermal, and other renewable energy projects, as well as projects that improve how we use energy.

The President is also committed to restarting our domestic nuclear industry. Earlier this year, DOE made a conditional commitment to finance construction of what will be the first nuclear reactor to break ground in the United States in decades. To help advance new nuclear reactors, the Administration also urges the Congress to provide an equal amount of budgetary resources -- \$90 million under CBO scoring conventions -- to support additional loan guarantee authority for advanced nuclear power facilities. Together with existing authority, the additional authority provided by this request would enable up to three nuclear power plant projects that are currently under review to move forward to a conditional commitment in 2010. A separate request will be transmitted in the near future to the Congress to reduce the FY 2011 Budget by the amounts in this supplemental request.

To protect taxpayer interests as well as improve the efficiency of program implementation, the Administration also proposes making several amendments to the Title XVII Loan Guarantee Program and Advanced Technology Vehicle Manufacturing statutes. These changes include allowing project credit subsidy costs for modifications to Title XVII loan guarantees to be paid from a combination of borrower payments and appropriated funds; expanding the Section 1705 program to include efficient end use energy technology projects; allowing the Loan Guarantee Program to provide guarantees to projects at multiple sites; allowing project sponsors to be eligible for multiple loan guarantees for eligible projects under the Section 1705 program; and permitting DOE to require borrowers to pay directly or to charge fees to reimburse DOE for expenses incurred for third-party consultants and advisors to the Advanced Technology Vehicle Manufacturing program.

Thank you for your strong leadership and for your consideration of these proposals. The Administration looks forward to working with the Congress on these proposals.

Sincerely,



Peter R. Orszag

Identical letter sent to The Honorable Harry Reid

DOE Loan Programs Office

California Projects Involving DOI

Project Name	Milestone/Schedule	DOI Information Needed	Comments
CA Valley Solar Ranch (Sunpower)	Draft EA/April 15 Final EA & FONSI/June 30, 2011	Expecting Draft Biological Opinion from FWS by April 15	Submitted Biological Assessment on Dec. 1. Informed by FWS it will take 135 days to receive draft BO
Abengoa Mojave (Abengoa)	Draft EA/April 1 Final EA&FONSI/June 8, 2011	SHPO Section 106 concurrence by June 8	DOE is Lead Agency for NEPA. BLM is Lead Agency for NHPA Section 106 & Tribal consultation
Blythe Solar (Solar Millennium)	DOE ROD/May-June, 2011	None	BLM is Lead Agency. DOE adopted BLM's FEIS on 12-10- 2010
Imperial Valley Solar Ctr – South (CSOLAR Development)	DOE FONSI/July 30, 2011	Final EA/April 18 FWS BO/May 18 SHPO MOA/June 22 FONSI-DR/June 23 NTP/August 15	BLM is Lead Agency. DOE to adopt EA and issue FONSI
Imperial Valley Solar Ctr – West (CSOLAR Development)	DOE FONSI/July 7, 2011	Final EA/April 11 BO/May 18 SHPO MOA/June 1 FONSI-DR/June 2 NTP/August 15	BLM is Lead Agency. DOE to adopt EA and issue FONSI
Genesis Solar (NexEra Energy)	DOE ROD/April 2011	None	BLM Lead Agency for EIS. DOE to adopt and issue ROD
Desert Sunlight (First Solar)	DOE adopt BLM FEIS/June 15 DOE ROD/September 1, 2011	SHPO MOA/April 15 BLM FEIS/April 15 FWS BO/May 5 BLM ROD/May 31	BLM Lead Agency for EIS. DOE to adopt and issue ROD
Rice (Solar Reserve)	FEIS/early April 2011 ROD/May 15	BLM comments on DEIS? FWS BO/mid-late May	BLM comments on DEIS may be gate for FEIS. FWS was assuming a June 2 ROD, so FWS BO may be gate for ROD
Topaz (First Solar)	DEIS/March 25 FEIS/August 9 ROD/September 8, 2011	FWS BO/April 25	ESA consultation initiated Feb 17
Ocotillo Wind Farm (Pattern Energy)	DOE ROD/Sept. 30, 2011	BLM Draft EIS/April? FEIS/? ROD/October 2011?	BLM ROD not expected until October 2011? (some sources say Dec. 2011) Therefore DOE timeline for ROD and commencement of construction cannot be met to qualify for 1705 credit subsidy

Bottle Rock Geothermal (Bottle Rock Power)	DOE FONSI/August 15, 2011	BLM EA&FONSI by August 15, 2011	BLM is Lead Agency. Issued EA & FONSI but project using different technology and needs new EA
Rare Earth Magnet (Molycorp)	FERC EA/May3 FERC Certificate/July 11 DOE EA&FONSI/Sept 2011 (too early to set more detailed schedule)	?	DOE Lead Agency for Mtn. Pass Mine and rare earth materials processing EA. BLM cooperating agency with FERC on connected action (8.6 mile pipeline) EA
Rentech Rialto Biodiesel (Rentech)	Draft EA/June 15 Final EA&FONSI August 12, 2011	FWS Biological Opinion by August 12, 2011	DOE due diligence just begun

U.S. Department of Energy

Energy.gov/Recovery Table

Data is as of 6/1/2010 9:45:52 PM

Projects listed below titled "Unallocated" represent Recovery Act funds for projects the Department is holding in reserve pending necessary approvals.

Program Office	Project	Authorized/ Appropriation (\$K)	Awarded/ Obligation (\$K)	Spent/ Gross Outlay (\$K)
ARPA-E	Advanced Research Projects Agency - Energy (ARPA-E)	377,556	165,515	10,784
	Program Direction - ARPA -E	11,300	1,631	1,283
ARPA-E Sum:		388,856	167,146	12,067
DA	Departmental Administration	42,000	28,622	18,260
DA Sum:		42,000	28,622	18,260
EERE	Modify Integrated Biorefinery Solicitation Program for Pilot and Demonstration Scale Biorefineries	509,172	509,128	14,558
	Commercial Scale Biorefinery Projects	94,914	81,976	0
	Fundamental Research in Key Program Areas	106,888	101,919	1,097
	Management and Oversight (EE Program Direction)	95,382	74,987	51,156
	Advanced Building Systems	74,053	1,180	340
	Residential Buildings (Building America, Builders' Challenge, and Existing Home Retrofits)	28,052	22,685	655
	National Accounts Acceleration in Support of the Commercial Buildings Initiative	52,011	24,594	477
	Buildings and Appliance Market Transformation	53,513	36,794	5,321
	Solid State Lighting	48,609	46,168	956
	Community Renewable Energy Deployment	21,890	21,127	124
	Integrated Biorefinery Research Expansion	13,433	13,433	328
	Renewable Energy and Supporting Site Infrastructure	86,764	82,515	2,075
	Lab Call for Facilities and Equipment	104,774	90,874	25
	NWTC Upgrades	9,950	9,950	117
	Enhance and Accelerate FEMP Service Functions to the Federal Government	16,253	15,816	6,675
	Energy, Water & Emissions Reporting and Tracking System	5,473	5,473	2,155
	Geothermal Demonstrations	73,973	44,949	0
	EGS Technology R&D	115,537	103,448	8,663
	Validation of Innovative Exploration Technologies	101,420	97,654	2,790
	National Geothermal Database, Resource Assessment and Classification System	35,180	27,169	439
	Ground Source Heat Pumps	63,943	61,871	3,131

Enabling Fuel Cell Market Transformation	41,554	41,554	14,195	
Combined Heat and Power (CHP), District Energy Systems, Waste Heat Recovery Implementation and Deployment of Efficient Industrial Equipment	149,382	146,093	3,818	
Improved Energy Efficiency for Information and Communication Technology	48,647	47,020	3,057	
Industrial Assessment Centers and Plant Best Practices	9,625	9,625	462	
Advanced Materials RD&D in Support of EERE Needs to Advance Clean Energy Technologies and Energy-Intensive Process R&D	46,818	45,077	7,687	
EE Conservation Block Grant Program	2,793,960	2,680,176	167,718	
Retrofit Ramp-Up: EECBG	390,040	215,000	0	
Retrofit Ramp-Up: Buildings	62,948	26,635	0	
Weatherization Assistance Program	4,975,000	4,774,138	967,235	
State Energy Program	3,084,500	3,088,450	157,316	
EE Appliance Rebate Programs	298,500	298,500	75,987	
Weatherization Innovation Pilot Program	2,500	0	0	
Concentrating Solar Power	25,472	27,881	2,284	
PV Systems Development	50,400	46,905	8,920	
High-Penetration Solar Deployment	40,091	38,328	5,707	
Wind Energy Technology R&D and Testing	13,406	13,406	2,346	
Battery Manufacturing	1,990,000	1,934,902	134,497	
Transportation Electrification	398,000	371,233	11,993	
Clean Cities AFV Grant Program	298,500	286,212	8,109	
Commercial Vehicle Integration (SuperTruck) and Advanced Combustion Engine R&D	109,249	106,055	754	
Investigation of intermediate ethanol blends, optimization of E-85 engines, and development of transportation infrastructure	19,824	19,225	6,421	
Wind Turbine Drivetrain Testing Facility	44,555	43,943	7,803	
Large Wind Turbine Blade Testing Facility	24,753	24,753	9,392	
Wind Energy Consortia between Institutions of Higher Learning and Industry	22,982	22,982	401	
Hydroelectric Facility Modernization Program	30,626	30,621	0	
NREL Ingress/Egress Project	44,000	44,000	311	
EERE Sum:	16,726,515	15,856,422	1,697,492	
EIA	Energy Information Administration ARRA Activities	8,000	7,804	3,164
EIA Sum:		8,000	7,804	3,164
EM	ANL Recovery Act Project	79,000	79,000	17,843
	BNL Recovery Act Project	61,855	61,855	29,636

ETEC Recovery Act Project	54,175	54,162	41,202
INL D&D Recovery Act Project	217,875	197,775	81,310
INL TRU Waste Recovery Act Project	130,000	120,000	62,640
INL Buried Waste Recovery Act Project	120,000	106,000	40,175
LANL Non-Defense Recovery Act Project	14,775	14,775	5,103
Moab Recovery Act Project	108,350	108,350	35,654
NTS Recovery Act Project	44,325	44,300	21,795
Oak Ridge Defense Y-12 D&D Recovery Act Project	280,000	280,000	100,258
Oak Ridge Defense ORNL D&D Recovery Act Project	132,610	116,504	22,507
Oak Ridge Defense TRU Waste Recovery Act Project	145,500	145,500	39,718
ORP Recovery Act Project	326,035	325,935	85,962
Hanford River Corridor D&D Recovery Act Project	383,889	383,889	98,887
Paducah Recovery Act Project	80,400	80,400	24,871
Portsmouth Recovery Act Project	119,800	119,800	38,430
Hanford Central Plateau D&D Recovery Act Project	701,516	701,009	206,748
Hanford Central Plateau Soil and Groundwater Recovery Act Project	235,503	235,503	58,214
Hanford TRU Waste Recovery Act Project	241,160	241,160	97,210
Hanford River Corridor Soil and Groundwater Recovery Act Project	72,432	72,432	15,198
SRS D&D P & R Areas Recovery Act Project	552,794	379,274	110,663
SRS D&D M & D Areas Recovery Act Project	14,925	21,056	8,812
SRS D&D, Soil & Groundwater Activities Site-wide Recovery Act Project	234,609	227,196	108,372
SRS TRU & Solid Waste Recovery Act Project	613,072	537,748	293,972
SPRU Recovery Act Project	51,775	51,775	16,202
Title X Uranium/Thorium Reimbursement Program	69,650	46,024	45,629
West Valley Recovery Act Project	73,875	62,875	22,889
WIPP Recovery Act Project	172,375	172,344	58,394
Oak Ridge UE D&D Funded Recovery Act Project	118,200	82,207	21,036
Mound Operable Unit 1 Recovery Act Project	19,700	19,700	8,975
Oak Ridge Non-Defense Recovery Act Project	78,800	33,352	9,821
SLAC Recovery Act Project	7,925	7,925	5,351
LANL Defense D&D Recovery Act Project	64,200	64,200	13,609
LANL Defense Soil and Groundwater Recovery Act Project	132,800	132,800	45,522

	Program Direction - EM - Defense Environmental Management	25,635	16,834	10,817
	Program Direction - EM - Non-Defense Environmental Management	2,415	1,483	867
	Program Direction - EM - Uranium Enrichment D&D Fund	1,950	287	52
	Liquid Waste Tank Infrastructure	200,000	198,650	41,473
	Unallocated	16,100	0	0
EM Sum:		6,000,000	5,544,080	1,945,818
FE	Carbon Capture and Storage	1,000,000	0	0
	Industrial Carbon Capture and Storage Applications	1,517,838	94,671	18,824
	Expand and Extend Clean Coal Power Initiative Round III	800,000	795,988	12,217
	Geologic Sequestration Site Characterization	48,607	46,971	1,447
	Geologic Sequestration Training and Research Grant Program	20,000	19,900	1,045
	Program Direction - FE	10,000	7,989	4,918
FE Sum:		3,396,445	965,519	38,450
LGPO	Credit Subsidy Program Section 1705	3,935,000	40,500	25,505
	Administrative Fees Section 1705	25,000	9,605	6,861
	ATVM Administrative Fees Transfer	10,000	9,954	6,814
LGPO Sum:		3,970,000	60,059	39,180
OE	Smart Grid Investment Grant Program (EISA 1306)	3,475,578	3,366,260	79,320
	Smart Grid Regional and Energy Storage Demonstration Project (EISA 1304)	695,122	637,248	6,530
	Workforce Development	100,000	13,309	451
	Interconnection Transmission Planning and Analysis	80,000	30,000	70
	State Assistance on Electricity Policies	50,000	48,619	1,215
	Enhancing State and Local Governments Energy Assurance	55,000	49,744	1,742
	Interoperability Standards and Framework (EISA 1305)	10,000	10,000	10,000
	Program Direction - OE	29,452	19,911	5,406
OE Sum:		4,495,152	4,175,091	104,733
SC	Energy Frontier Research Centers	277,020	275,920	23,132
	National Synchrotron Light Source II	150,000	150,000	45,187
	Advanced Light Source User Support Building	14,682	14,682	12,531
	Linac Coherent Light Source Ultrafast Science Instruments MIE	33,600	33,600	10,382

Nanoscale Science Research Centers	25,000	25,000	5,007
Light Source Improvements	24,000	24,000	3,671
Advanced Networking Initiative	66,818	66,818	2,104
Computational Partnerships (SciDAC-e)	29,195	18,300	997
Magellan Distributed Computing and Data Initiative	32,768	32,768	13,497
Advanced Computer Architectures	5,179	5,170	38
Leadership Computing Upgrade	19,865	19,865	19,865
ARM Climate Research Facility Initiative	60,000	60,000	21,428
Bioenergy Research Center Capital Equipment	13,500	13,500	5,976
Integrated Assessment Research	4,860	4,860	2,894
Joint Genome Institute	13,122	13,122	9,438
Environmental Molecular Sciences Laboratory	60,000	60,000	26,819
Knowledgebase R&D	3,188	3,188	1,759
NOvA MIE	55,000	55,000	12,622
Superconducting Radio Frequency R&D	52,672	52,672	3,894
Fermilab GPP augmentation	25,000	25,000	6,147
Advanced Plasma Acceleration Facility MIE	33,718	31,500	7,570
Research and Infrastructure augmentation at universities in the HEP program	15,000	3,875	326
Advanced technology R&D augmentation	20,000	14,978	3,475
Long Baseline Neutrino Experiment	15,000	15,000	2,916
Advance funding of 12 GeV CEBAF Upgrade	65,000	65,000	18,054
Fundamental Neutron Physics Beamline MIE at SNS full funding (ORNL)	600	600	600
PHENIX Silicon Vertex MIE full funding (RHIC at BNL)	250	250	99
PHENIX Forward Vertex Detector MIE full funding (RHIC at BNL)	2,000	2,000	329
Enhanced AIP funding at NP user facilities	25,000	25,000	3,196
Enhanced utilization of Isotope facilities	10,000	10,000	10,000
TJNAF Infrastructure Investments	10,000	10,000	2,741
Nuclear Data Program Initiative	1,944	1,944	228
Lattice Quantum ChromoDynamics Computing	4,965	4,965	3,199
Nuclear Science Workforce	19,440	18,414	2,220
R&D on Alternative Isotope Production Techniques	4,617	4,617	4,617
DIII-D Facility Upgrades	11,730	11,729	3,208
Alcator C-Mod Facility Upgrades (MIT)	4,960	4,960	33
NSTX Facility Upgrades	7,034	7,034	2,132
Enhanced operation of Major Fusion Facilities	4,900	4,900	4,364
PPPL GPP	5,000	5,000	318

High Energy Density Laboratory Plasma, Matter in Extreme Conditions (MEC) Instrument Project	19,973	19,973	656
High Energy Density Laboratory Plasma, NDCX-II	11,000	11,000	2,025
Infrastructure Improvements for Innovative Confinement Concepts (ICC) Experiments	4,868	2,278	255
Plasma Science Centers	9,700	9,700	634
Infrastructure Improvements for General Plasma Science User Facilities	3,888	883	79
SLI Construction	108,542	108,542	43,076
General Plant Project funding across all SC laboratories	90,572	88,597	26,714
OSTI Technology Infrastructure	1,600	1,242	571
Energy Sciences Fellowships and Early Career Research Program	97,511	97,511	61
SBIR/STTR	95,750	18,233	10,218
Management and Oversight (SC Program Direction)	3,000	2,750	481
SC Sum:	1,673,031	1,555,941	381,781
WAPA	10,000	3,940	3,155
WAPA Sum:	10,000	3,940	3,155
Report Sum:	36,710,000	28,364,823	4,244,099

Authorized/ Appropriation (\$K): Funds made available to DOE in the Recovery Act.
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Spent/ Gross Outlay (\$K): Amount of awarded/obligated funds that have been paid.

U.S. Department of Energy

Energy.gov/Recovery Table

Data is as of October 22, 2010

Projects listed below titled "Unallocated" represent Recovery Act funds for projects the Department is holding in reserve pending necessary approvals.

Program Office	Project	Authorized/ Appropriation (\$K)	Awarded/ Obligation (\$K)	Spent/ Gross Outlay (\$K)
ARPA-E	Advanced Research Projects Agency - Energy (ARPA-E)	368,616	368,606	29,175
	Program Direction - ARPA -E	18,300	18,282	7,709
ARPA-E Sum:		386,916	386,888	36,883
DA	Departmental Administration	143,475	49,638	29,508
DA Sum:		143,475	49,638	29,508
EERE	Advanced Building Systems	67,033	67,033	2,983
	Advanced Materials RD&D in Support of EERE Needs to Advance Clean Energy Technologies and Energy-Intensive Process R&D	46,711	46,710	17,486
	Battery Manufacturing	1,990,000	1,990,000	328,299
	BetterBuildings: Buildings	62,000	62,000	9,626
	BetterBuildings: EECBG	390,040	390,040	27,952
	Buildings and Appliance Market Transformation	51,961	51,961	10,507
	Clean Cities AFV Grant Program	298,500	298,500	29,902
	Combined Heat and Power (CHP), District Energy Systems, Waste Heat Recovery Implementation and Deployment of Efficient Industrial Equipment	150,480	150,480	27,704
	Commercial Scale Biorefinery Projects	81,976	81,976	1,141
	Commercial Vehicle Integration (SuperTruck) and Advanced Combustion Engine R&D	106,055	106,055	8,669
	Community Renewable Energy Deployment	21,227	21,227	509
	Concentrating Solar Power	24,131	24,131	4,086
	EE Appliance Rebate Programs	298,500	298,500	201,589
	EE Conservation Block Grant Program	2,803,260	2,803,260	513,175
	EGS Technology R&D	111,882	111,882	25,530
	Enabling Fuel Cell Market Transformation	41,554	41,554	21,579
	Energy, Water & Emissions Reporting and Tracking System	5,473	5,473	4,613
	Enhance and Accelerate FEMP Service Functions to the Federal Government	16,253	16,253	14,511
	Fundamental Research in Key Program Areas	106,888	106,888	17,271
	Geothermal Demonstrations	62,973	62,973	3,193
Ground Source Heat Pumps	62,448	62,448	13,280	

High-Penetration Solar Deployment		42,052	42,052	10,909
Hydroelectric Facility Modernization Program		30,626	30,626	13,661
Improved Energy Efficiency for Information and Communication Technology		47,020	47,020	20,635
Industrial Assessment Centers and Plant Best Practices		9,625	9,625	3,020
Integrated Biorefinery Research Expansion		13,433	13,433	2,626
Investigation of intermediate ethanol blends, optimization of E-85 engines, and development of transportation infrastructure		19,824	19,824	14,484
Lab Call for Facilities and Equipment		104,774	104,774	4,124
Large Wind Turbine Blade Testing Facility		24,753	24,753	18,190
Management and Oversight (EE Program Direction)		119,500	118,787	91,592
Modify Integrated Biorefinery Solicitation Program for Pilot and Demonstration Scale Biorefineries		509,169	509,167	49,712
NREL Ingress/Egress Project		44,000	44,000	1,648
NWTC Upgrades		9,950	9,950	796
National Accounts Acceleration in Support of the Commercial Buildings Initiative		24,594	24,594	2,145
National Geothermal Database, Resource Assessment and Classification System		33,650	33,650	2,729
PV Systems Development		50,667	50,667	20,446
Renewable Energy and Supporting Site Infrastructure		86,764	86,764	19,719
Residential Buildings (Building America, Builders' Challenge, and Existing Home Retrofits)		23,633	23,633	4,560
Solid State Lighting		46,168	46,168	7,326
State Energy Program		3,084,500	3,084,500	743,501
Transportation Electrification		386,233	386,233	37,182
Validation of Innovative Exploration Technologies		97,284	97,284	7,046
Weatherization Assistance Program		4,975,000	4,975,000	1,721,160
Wind Energy Consortia between Institutions of Higher Learning and Industry		22,982	22,982	9,067
Wind Energy Technology R&D and Testing		16,198	16,198	6,294
Wind Turbine Drivetrain Testing Facility		44,555	44,555	10,540
EERE Sum:		16,666,299	16,665,583	4,106,717
EIA	Energy Information Administration ARRA Activities	8,000	8,000	7,093
EIA Sum:		8,000	8,000	7,093
EM	ANL Recovery Act Project	79,000	79,000	34,549
	BNL Recovery Act Project	70,810	70,810	46,747

ETEC Recovery Act Project	51,675	51,675	43,080
Hanford Central Plateau D&D Recovery Act Project	625,115	625,115	290,436
Hanford Central Plateau Soil and Groundwater Recovery Act Project	272,414	272,414	113,465
Hanford River Corridor D&D Recovery Act Project	344,554	344,554	202,172
Hanford River Corridor Soil and Groundwater Recovery Act Project	76,754	76,754	31,218
Hanford TRU Waste Recovery Act Project	315,663	315,663	153,128
INL Buried Waste Recovery Act Project	123,000	123,000	63,451
INL D&D Recovery Act Project	207,875	207,875	111,365
INL TRU Waste Recovery Act Project	137,000	137,000	86,886
LANL Defense D&D Recovery Act Project	47,100	47,100	26,364
LANL Defense Soil and Groundwater Recovery Act Project	150,100	150,100	91,595
LANL Non-Defense Recovery Act Project	14,775	14,775	13,666
Liquid Waste Tank Infrastructure	200,000	200,000	98,251
Moab Recovery Act Project	108,350	108,350	60,356
Mound Operable Unit 1 Recovery Act Project	17,900	17,900	16,781
NTS Recovery Act Project	44,325	44,325	32,692
ORP Recovery Act Project	326,035	326,035	167,027
Oak Ridge Defense ORNL D&D Recovery Act Project	132,610	132,610	38,182
Oak Ridge Defense TRU Waste Recovery Act Project	145,500	145,500	64,285
Oak Ridge Defense Y-12 D&D Recovery Act Project	280,000	280,000	148,258
Oak Ridge Non-Defense Recovery Act Project	78,800	78,800	15,843
Oak Ridge UE D&D Funded Recovery Act Project	118,200	118,200	32,895
Paducah Recovery Act Project	80,400	80,400	40,548
Portsmouth Recovery Act Project	119,800	119,800	83,799
Program Direction - EM - Defense Environmental Management	24,905	24,850	16,639
Program Direction - EM - Non-Defense Environmental Management	2,415	2,415	1,369
Program Direction - EM - Uranium Enrichment D&D Fund	600	600	213
SLAC Recovery Act Project	14,300	14,300	7,584
SPRU Recovery Act Project	58,575	58,575	27,864
SRS D&D M & D Areas Recovery Act Project	23,550	23,550	13,157

	SRS D&D P & R Areas Recovery Act Project	417,715	417,715	186,760
	SRS D&D, Soil & Groundwater Activities Site-wide Recovery Act Project	236,199	236,199	145,843
	SRS TRU & Solid Waste Recovery Act Project	737,936	737,936	382,640
	Title X Uranium/Thorium Reimbursement Program	70,000	70,000	45,707
	WIPP Recovery Act Project	172,175	172,175	87,655
	West Valley Recovery Act Project	62,875	62,875	36,185
EM Sum:		5,989,000	5,988,944	3,058,653
FE	Carbon Capture and Storage	994,985	994,985	0
	Expand and Extend Clean Coal Power Initiative Round III	795,988	795,988	42,455
	Geologic Sequestration Site Characterization	48,356	48,356	4,866
	Geologic Sequestration Training and Research Grant Program	19,900	19,900	3,426
	Industrial Carbon Capture and Storage Applications	1,510,216	1,510,216	39,963
	Program Direction - FE	10,000	9,973	7,799
FE Sum:		3,379,445	3,379,418	98,508
LGPO	ATVM Administrative Fees Transfer	10,000	9,176	8,164
	Administrative Fees Section 1705	25,000	19,533	12,458
	Credit Subsidy Program Section 1705	2,435,000	60,522	39,102
LGPO Sum:		2,470,000	89,231	59,724
OE	Enhancing State and Local Governments Energy Assurance	51,525	51,525	5,240
	Interconnection Transmission Planning and Analysis	80,000	80,000	2,021
	Interoperability Standards and Framework (EISA 1305)	12,000	12,000	12,000
	Program Direction - OE	27,812	27,811	10,001
	Smart Grid Investment Grant Program (EISA 1306)	3,482,831	3,482,831	421,157
	Smart Grid Regional and Energy Storage Demonstration Project (EISA 1304)	684,829	684,829	32,144
	State Assistance on Electricity Policies	48,619	48,619	5,042
	Workforce Development	100,000	100,000	1,332
OE Sum:		4,487,617	4,487,616	488,938
SC	ARM Climate Research Facility Initiative	60,000	60,000	37,591
	Advance funding of 12 GeV CEBAF Upgrade	65,000	65,000	32,359
	Advanced Computer Architectures	5,170	5,170	273
	Advanced Light Source User Support Building	14,682	14,682	14,624
	Advanced Networking Initiative	66,818	66,818	3,283

Advanced Plasma Acceleration Facility MIE	33,718	33,718	11,503
Advanced technology R&D augmentation	20,120	20,120	8,081
Alcator C-Mod Facility Upgrades (MIT)	4,960	4,960	859
Bioenergy Research Center Capital Equipment	13,500	13,500	12,256
Computational Partnerships (SciDAC-e)	29,204	29,204	3,524
DIII-D Facility Upgrades	11,730	11,730	6,384
Energy Frontier Research Centers	277,020	277,020	47,753
Energy Sciences Fellowships and Early Career Research Program	97,511	97,511	5,926
Enhanced AIP funding at NP user facilities	25,000	25,000	7,162
Enhanced operation of Major Fusion Facilities	4,900	4,900	4,828
Enhanced utilization of Isotope facilities	10,000	10,000	10,000
Environmental Molecular Sciences Laboratory	60,000	60,000	47,139
Fermilab GPP augmentation	25,000	25,000	15,943
Fundamental Neutron Physics Beamline MIE at SNS full funding (ORNL)	600	600	600
General Plant Project funding across all SC laboratories	90,572	90,572	52,121
High Energy Density Laboratory Plasma, Matter in Extreme Conditions (MEC) Instrument Project	19,973	19,973	2,607
High Energy Density Laboratory Plasma, NDCX-II	11,000	11,000	4,468
Infrastructure Improvements for General Plasma Science User Facilities	3,888	3,888	688
Infrastructure Improvements for Innovative Confinement Concepts (ICC) Experiments	4,868	4,868	1,180
Integrated Assessment Research	4,860	4,860	4,712
Joint Genome Institute	13,122	13,122	12,767
Knowledgebase R&D	3,188	3,188	3,187
Lattice Quantum ChromoDynamics Computing	4,965	4,965	4,027
Leadership Computing Upgrade	19,865	19,865	19,865
Light Source Improvements	24,000	24,000	7,932
Linac Coherent Light Source Ultrafast Science Instruments MIE	33,600	33,600	20,517
Long Baseline Neutrino Experiment	15,000	15,000	6,854
Magellan Distributed Computing and Data Initiative	32,768	32,768	19,577
Management and Oversight (SC Program Direction)	3,000	3,000	1,323
NOVA MIE	55,000	55,000	19,921
NSTX Facility Upgrades	7,034	7,034	4,271
Nanoscale Science Research Centers	25,000	25,000	16,324

National Synchrotron Light Source II	150,000	150,000	82,175	
Nuclear Data Program Initiative	1,944	1,944	450	
Nuclear Science Workforce	19,440	19,440	4,239	
OSTI Technology Infrastructure	1,600	1,600	787	
PHENIX Forward Vertex Detector MIE full funding (RHIC at BNL)	2,000	2,000	980	
PHENIX Silicon Vertex MIE full funding (RHIC at BNL)	250	250	244	
PPPL GPP	5,000	5,000	1,200	
Plasma Science Centers	9,700	9,700	1,490	
R&D on Alternative Isotope Production Techniques	4,617	4,617	4,617	
Research and Infrastructure augmentation at universities in the HEP program	14,880	14,880	3,880	
SBIR/STTR	91,967	91,967	18,483	
SLI Construction	108,542	108,542	66,790	
Superconducting Radio Frequency R&D	52,672	52,672	11,496	
TJNAF Infrastructure Investments	10,000	10,000	9,211	
SC Sum:	1,669,248	1,669,248	678,470	
WAPA	WAPA Recovery Act Implementation Appropriation	10,000	6,325	4,150
WAPA Sum:	10,000	6,325	4,150	
Report Sum:	35,210,000	32,730,890	8,568,645	

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