AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

IMPLEMENTATION OF EPACT 2005 LOAN GUARANTEE PROGRAMS BY THE DEPARTMENT OF ENERGY

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND AIR QUALITY

OF THE

COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

APRIL 24, 2007

Serial No. 110–32

Printed for the use of the Committee on Energy and Commerce
energycommerce.house.gov

U.S. GOVERNMENT PRINTING OFFICE
40–278 PDF WASHINGTON : 2008

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON ENERGY AND COMMERCE

JOHN D. DINGELL, Michigan, *Chairman*

HENRY A. WAXMAN, California
EDWARD J. MARKEY, Massachusetts
RICK BOUCHER, Virginia
EDOLPHUS TOWNS, New York
FRANK PALLONE, JR., New Jersey
BART GORDON, Tennessee
BOBBY L. RUSH, Illinois
ANNA G. ESHOO, California
BART STUPAK, Michigan
ELIOT L. ENGEL, New York
ALBERT R. WYNN, Maryland
GENE GREEN, Texas
DIANA DEGETTE, Colorado
Vice Chairman
LOIS CAPPS, California
MIKE DOYLE, Pennsylvania
JANE HARMAN, California
TOM ALLEN, Maine
JAN SCHAKOWSKY, Illinois
HILDA L. SOLIS, California
CHARLES A. GONZALEZ, Texas
JAY INSLEE, Washington
TAMMY BALDWIN, Wisconsin
MIKE ROSS, Arkansas
DARLENE HOOLEY, Oregon
ANTHONY D. WEINER, New York
JIM MATHESON, Utah
G.K. BUTTERFIELD, North Carolina
CHARLIE MELANCON, Louisiana
JOHN BARROW, Georgia
BARON P. HILL, Indiana

JOE BARTON, Texas
Ranking Member
RALPH M. HALL, Texas
J. DENNIS HASTERT, Illinois
FRED UPTON, Michigan
CLIFF STEARNS, Florida
NATHAN DEAL, Georgia
ED WHITFIELD, Kentucky
BARBARA CUBIN, Wyoming
JOHN SHIMKUS, Illinois
HEATHER WILSON, New Mexico
JOHN B. SHADEGG, Arizona
CHARLES W. "CHIP" PICKERING, Mississippi
VITO FOSSELLA, New York
STEVE BUYER, Indiana
GEORGE RADANOVICH, California
JOSEPH R. PITTS, Pennsylvania
MARY BONO, California
GREG WALDEN, Oregon
LEE TERRY, Nebraska
MIKE FERGUSON, New Jersey
MIKE ROGERS, Michigan
SUE WILKINS MYRICK, North Carolina
JOHN SULLIVAN, Oklahoma
TIM MURPHY, Pennsylvania
MICHAEL C. BURGESS, Texas
MARSHA BLACKBURN, Tennessee

PROFESSIONAL STAFF

DENNIS B. FITZGIBBONS, *Chief of Staff*
GREGG A. ROTHSCHILD, *Chief Counsel*
SHARON E. DAVIS, *Chief Clerk*
BUD ALBRIGHT, *Minority Staff Director*

SUBCOMMITTEE ON ENERGY AND AIR QUALITY

RICK BOUCHER, Virginia, *Chairman*

G.K. BUTTERFIELD, North Carolina, *Vice Chairman*
CHARLIE MELANCON, Louisiana
JOHN BARROW, Georgia
HENRY A. WAXMAN, California
EDWARD J. MARKEY, Massachusetts
ALBERT R. WYNN, Maryland
MIKE DOYLE, Pennsylvania
JANE HARMAN, California
TOM ALLEN, Maine
CHARLES A. GONZALEZ, Texas
JAY INSLEE, Washington
TAMMY BALDWIN, Wisconsin
MIKE ROSS, Arkansas
DARLENE HOOLEY, Oregon
ANTHONY D. WEINER, New York
JIM MATHESON, Utah
JOHN D. DINGELL, Michigan *(ex officio)*

J. DENNIS HASTERT, Illinois, *Ranking Member*
RALPH M. HALL, Texas
FRED UPTON, Michigan
ED WHITFIELD, Kentucky
JOHN SHIMKUS, Illinois
JOHN B. SHADEGG, Arizona
CHARLES W. "CHIP" PICKERING, Mississippi
STEVE BUYER, Indiana
MARY BONO, California
GREG WALDEN, Oregon
MIKE ROGERS, Michigan
SUE WILKINS MYRICK, North Carolina
JOHN SULLIVAN, Oklahoma
MICHAEL C. BURGESS, Texas
JOE BARTON, Texas *(ex officio)*

PROFESSIONAL STAFF

SUE D. SHERIDAN, *Chief Counsel*
BRUCE C. HARRIS, SENIOR ADVISOR
LAURA VAUGHT, *Policy Coordinator*
DAVID MCCARTHY, *Minority Chief Counsel*
CHRIS TREANOR, *Clerk*

CONTENTS

	Page
Hon. Rick Boucher, a Representative in Congress from the Commonwealth of Virginia, opening statement	1
Hon. J. Dennis Hastert, a Representative in Congress from the State of Illinois, opening statement	2
Hon. Joe Barton, a Representative in Congress from the State of Texas, opening statement	3

WITNESSES

Dennis R. Spurgeon, Acting Under Secretary, Department of Energy	5
Prepared statement	8
Answer to submitted question	76
James C. Cosgrove, Acting Director, Natural Resources and Environment, Government Accountability Office	25
Prepared statement	28
Julie Jorgensen, co-president and chief executive officer, Excelsior Energy, Incorporated	36
Prepared statement	37
Denny Devos, director, corporate finance, POET	39
Prepared statement	41
Christopher Crane, president and chief nuclear officer, Exelon Generation	46
Prepared statement	47
Answers to submitted questions	81

SUBMITTED MATERIAL

The Mesaba Energy Project	58
Gary L. Kepplinger, General Counsel, U.S. Government Accountability Office, letter of April 20, 2007 to Messrs. Visclosky and Hobson	67

IMPLEMENTATION OF EPACT 2005 LOAN GUARANTEE PROGRAMS BY THE DEPARTMENT OF ENERGY

TUESDAY, APRIL 24, 2007

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENERGY
AND AIR QUALITY,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 3:15 p.m., in room 2322 of the Rayburn House Office Building, Hon. Rick Boucher (chairman) presiding.

Members present: Representatives Butterfield, Melancon, Barrow, Markey, Doyle, Gonzalez, Inslee, Hastert, Shimkus, Shadegg, Walden, Burgess, and Barton.

Staff present: Sue Sheridan, Bruce Harris, Chris Treanor, Bud Albright, David McCarthy, Kurt Bilas, Peter Kielty, and Matthew Johnson.

OPENING STATEMENT OF HON. RICK BOUCHER, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF VIRGINIA

Mr. BOUCHER. The subcommittee will come to order. The Energy Policy Act of 2005 enacted two loan guarantee programs. Title XV authorized the provision of loan guarantees for the processing and conversion of municipal solid waste and cellulosic biomass into fuel alcohol and other commercial byproducts. Title XVII provides loan guarantees for projects that avoid, reduce, and sequester air pollutants for anthropogenic emissions of greenhouse gases. To date, the Department of Energy's focus has been on the implementation of the title XVII program, which includes 10 categories of projects that are eligible for loan guarantees. But no loan guarantees, as of today, have been awarded.

In response to widespread concern surrounding the length of time associated with the making of any awards under the program, the continuing resolution providing appropriations for fiscal year 2007 addressed DOE's delays. The resolution provided for up to $4 billion in loan guarantees during the course of fiscal year 2007 and directed to DOE to complete a rulemaking on title XVII within 6 months. It further stipulated that no loan guarantees could be awarded until the final regulation has been issued.

However, at a March hearing before the Appropriations Committee, Secretary Bodman stated that it is likely impossible to promul-

gate a final rule by that August deadline. In the meantime, a number of energy industries, including cellulosic ethanol producers, have expressed the strong need for the title XV loan guarantee program in order to begin the commercial deployment phases of their technologies. Since DOE's focus has been exclusively on the title XVII program, title XV loan guarantees have not been awarded, either.

Other problems have also been voiced. For example, the statute allows for projects to self-fund the Government's risk in issuing a loan guarantee as an alternative to obtaining an appropriation to fund that risk. However, the initial DOE guidelines require that each project still receive an approval in an appropriations bill notwithstanding that self-funding authorization.

Today's witnesses will enable us to examine the current state of the implementation process, as well as to hear from a number of witnesses whose projects have been affected by the fact that no awards have been made through either program at this time. We will also learn, from the witnesses, their recommendations for changes which would enable an expeditious implementation of the loan guarantee program.

I want to say welcome to each of our witnesses and we will turn to their testimony momentarily. It is now my privilege to recognize the ranking Republican member of this subcommittee, the gentleman from Illinois, Mr. Hastert, for his 5-minute opening statement.

OPENING STATEMENT OF HON. J. DENNIS HASTERT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. HASTERT Thank you, Mr. Chairman. Thank you for holding this hearing on the status of the loan guarantee program of title XVII of the Energy Policy Act of 2005. I also want to thank our witnesses for agreeing to testify today. Your testimony is important to give perspective on the status of this program. Title XVII established a loan guarantee program at the Department of Energy to provide guarantees for new and innovative energy projects. These types of projects include ethanol, clean coal facilities, and nuclear power plants; all technologies I support.

We need to get the next generation of these technologies and others like cellulosic and coal-to-liquid technology to the market as soon as possible. Doing so will help reduce our dependence on unstable foreign sources of energy. This increases our national security by providing the right energy here at home that we need to power the American economy in the future. However, after 20 months, no loan has yet to be guaranteed. That is too long. There have been a number of reasons why the program has been slow to start and I am sure that we will hear about them today.

But the bottom line is that we need to get this loan guarantee program operational soon. Congress intended to have these loans guaranteed at a full 80 percent of the project cost, not to 80 percent of 80 percent that we are now hearing some spin. This full financing is essential for the future of energy innovation in this country. Title XVII provides the loan guarantees to get new technology like clean coal, carbon capture and sequestration, and the next generation nuclear and ethanol on the ground running and into the mar-

ket. Not only do these technologies improve our energy security, but they will also improve our environment. But again, to get there, we need new technology; that is why title XVII is so important. Properly operated, the title XVII loan guarantees could bring these new technologies to market with benefits that all Americans are certain to realize.

I look forward to today's hearing on title XVII; what has happened or not happened and why, and where this program is going. And if there are things in Congress and on this committee in particular that we can do to make this program work or changes that must be needed, let us hear about it. Mr. Chairman, I am somewhat anxious to hear the reasons why we are not getting this program in place and why some in the White House are trying to shave this down to 64 percent. With that, I want to get on with the hearing and yield back. Thank you, sir.

Mr. BOUCHER. I thank the gentleman for his very well structured comments. The gentleman from Georgia, Mr. Barrow, is recognized for 5 minutes.

Mr. BARROW. I will waive.

Mr. BOUCHER. The gentleman from Georgia waives. I would note that any Member who waives an opening statement will have the time allotted for that opening statement added to that Member's period for posing questions. The gentleman from Washington State, Mr. Inslee, is recognized.

Mr. INSLEE. I will waive, Mr. Chairman.

Mr. BOUCHER. Mr. Inslee waives. The gentleman from Massachusetts, Mr. Markey, is recognized.

Mr. MARKEY. I would like to waive.

Mr. BOUCHER. Mr. Markey waives. The gentleman from Texas, Mr. Gonzalez, is recognized.

Mr. GONZALEZ. I will waive.

Mr. BOUCHER. He waives, also. The gentleman from Texas, Mr. Barton, ranking member on the full committee, is recognized for 5 minutes.

OPENING STATEMENT OF HON. JOE BARTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BARTON. Thank you, Mr. Chairman, for holding this hearing today. I want to welcome our witnesses, also. We are here today to talk about the loan guarantee program that we authorized in the Energy Policy Act of 2005. I would like to point out that I was the chairman of that conference, in conjunction with the Senate. Senator Bingaman, Senator Domenici, and Chairman Dingell were the four major conferees on the Energy Policy Act.

We first saw the proposal for loan guarantee in the Senate version of the EPAct. Because I did chair the conference, I had the ability to change it or at least recommend that it be changed, but Senator Domenici and Senator Bingaman felt so strongly, on a bipartisan basis, that the program was well-crafted, that Congressman Dingell and myself decided to accept that. That was one of the things that we did accept from the Senate with no changes. Since it has been enacted, this program has run into one problem after another.

The plain language of EPAct says that there shall be a Government loan guarantee of 80 percent of the capital cost of the project, not 80 percent of 80 percent. What a crock of horse hockey to come here and have to debate what 80 percent means. If we had known then what we know now, we would have put in an example about what 80 means. It means if you borrow a billion dollars or you need a billion dollars, you can borrow up to 80 percent of it and get a Federal loan guarantee on $800 million. That is what it means. It doesn't mean $640 million or 64 percent.

There was never one bit of conversation between Mr. Bingaman, Mr. Domenici, Mr. Dingell and myself about 80 percent meaning 64 percent, not once. So if we can get anything into the record in this hearing, Mr. Chairman, let us at least say that the intent of the conferees was that 80 percent meant 80 percent of the entire loan, period. I mean, plain language. And I think that Senators Bingaman and Domenici and Chairman Dingell will back me up on that.

Having decided in their own infinite wisdom that somehow 80 percent means 64 percent, the CBO has now come out and said that even though you can only borrow $640 million that is guaranteed, you are at risk in terms of CBO scoring for the entire $1 billion. Well, what the hey is going on here? If the most you can borrow is $640 million that mostly can be guaranteed by the Federal Government, then most of the Federal Government's risk, apparently, should be $640 million. So it just seems like the gods have it in for this loan guarantee program, that no matter which way you go, it is being viewed exactly the opposite way that the congressional intent was when we passed the law.

Our friends at OMB and CBO are not the only problems, however, for this program. The appropriation committees in both the House and the Senate have had misgivings about this and about committing real dollars. EPAct is, we need to point out, only authorized spending. It is up to the appropriation committees to put muscle behind those authorizations and I am of the opinion that this is, if we really want to get some of these alternative energy programs going, if we really want to get our commercial nuclear activities going, we need to go ahead and put some real money into the loan guarantee program and get it moving.

Now, last week, to top it off, our friends at GAO have said that even the initial steps that the Department of Energy has taken to set up an office and start communicating with potential applicants have gone too far, so every way we turn, what looked to be on paper, back when we actually did the Energy Policy Act, to be a pretty straightforward, simple program is turning into some sort of a Nightmare on Elm Street hypothesis, except it is Independence Avenue and we need to change that.

So I am glad, Mr. Chairman, that you are having this hearing. I am glad to hear we are here to talk about what I consider to be a very important part of the Energy Policy Act. I think it is central to our discussions about climate change and reducing CO^2 emissions. The very purpose of the loan guarantee program is to bridge the gap between the capital new alternative energy projects need to get built and the amount that investors are actually willing to invest and put their own capital at risk. So this is a program that we need to get moving. I hope that this hearing facilitates some

clear thinking and some re-emphasis and renewed commitment to make this program move forward. With that, I yield back.

Mr. BOUCHER. Thank you very much, Mr. Barton. The gentleman from Arizona, Mr. Shadegg, is recognized for 5 minutes.

Mr. SHADEGG. Mr. Chairman, I am going to commend you for holding this hearing and welcome our witnesses. I will waive.

Mr. BOUCHER. Thank you, Mr. Shadegg. The gentleman from Oregon, Mr. Walden, is recognized.

Mr. WALDEN. Mr. Chairman, I, too, am going to waive and look forward to the testimony of our witnesses. Thank you.

Mr. BOUCHER. Well, all Members having either given an opening statement or waived that opportunity, we now welcome our first witness and I am pleased to welcome to the subcommittee Mr. Dennis Spurgeon, who is the acting Under Secretary of the Department of Energy, with expertise on a number of DOE initiatives and projects, including the current status of the implementation of the loan guarantee program. We are glad to have you here this afternoon. We will have, I am sure, a rather candid discussion about these issues and before we turn to that, we would welcome your opening statement. Without objection, your full written statement will be made a part of the record and we would welcome your oral summary of approximately 5 minutes.

STATEMENT OF DENNIS R. SPURGEON, ACTING UNDER SECRETARY, DEPARTMENT OF ENERGY

Mr. SPURGEON. Thank you, sir. Chairman Boucher, Ranking Member Hastert and Mr. Barton, and members of the subcommittee, I am pleased to be with you today to address the important steps underway at the Department of Energy to implement the Loan Guarantee Program contained in title XVII of the Energy Policy of Act of 2005.

Title XVII authorizes the Secretary of Energy, after consultation with the Secretary of the Treasury, to make loan guarantees for projects that "avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases and employ new or significantly improved technologies as compared to commercial technologies" in service in the United States at the time the guarantee is issued. Under EPAct 2005 many types of energy related projects, including renewable energy systems, efficient electric generation and transmission systems, coal gasification, carbon sequestration, advanced nuclear energy facilities, biomass projects such as waste to cellulosic ethanol and refineries, among others, are eligible for loan guarantees under this title.

A principal goal of title XVII is to encourage commercial use in the United States of new or significantly improved energy related technologies at an earlier date than the marketplace might otherwise support. DOE believes that accelerated commercial use of new and improved technologies will help to sustain economic growth, yield environmental benefits, enhance energy security and produce a more stable and secure energy supply and economy for the United States. We believe that consumers will also benefit economically from a carefully implemented title XVII loan guarantee program. Because of the lower cost of capital achieved through loan

guarantees, consumers should experience lower utility rates and lower costs for other sources than without loan guarantees.

Moreover, Title XVII Loan Guarantee Program may provide the necessary assurance to the capital finance market to enable financing for new technologies and those not yet proven in U.S. markets, such as bio-refineries or coal-to-liquids facilities that would not otherwise be able to obtain financing at a rate competitive enough to undertake construction and operation.

Although Congress enacted title XVII in August 2005, the Department received the first necessary funding and authorizations needed under the Federal Credit Reform Act of 1990 in the continuing resolution enacted February 15, 2007. Requests by the Department in 2006 for congressional approval to reprogram funds in fiscal year 2006 to fund the Loan Guarantee Office were unsuccessful. The CR provided $7 million in funding for administrative expenses of a Loan Guarantee Program Office and the 2008 budget $8.4 million for these expenses. The CR also included authority to issue guarantees for up to $4 billion in loans. The Department anticipates having authority available to guarantee $9 billion in loans in fiscal year 2008. I want to assure you that the Department is moving aggressively to implement Title XVII Loan Guarantee Program, as this program is a high priority for everyone at DOE from the Secretary on down.

Indeed, even before the CR gave the Department authorizations and funding needed to carry out the Title XVII Loan Guarantee Program, the Department was hard at work addressing the twin objectives underpinning title XVII: advancing the early commercialization of new and improved energy technologies beneficial to the environment and minimizing the financial exposure of the United States.

Thus, to move the effort forward and to gain needed experience with the statutory, regulatory, and commercial concerns integral to the operation of a loan guarantee program, the Department, in August 2006, published guidelines in the Federal Register that specified the process by which DOE would review and approve the first round of loan guarantee applications. At the same time, we issued a solicitation under the guidelines that invited project sponsors to submit pre-applications for projects in support of the President's Advanced Energy Initiative.

We received 143 pre-applications in response to the August 2006 solicitation and are now working to evaluate them. Invitations to submit full applications will be issued to selected applicants as soon as possible. Under the CR, however, the issuance of loan guarantees in response to the August 2006 solicitation and pursuant to any future solicitations, cannot occur until the Department issues final regulations for the title XVII program. The CR states that the final regulations must be issued within 6 months of the date of enactment, or by August 15, 2007.

The August 2007 deadline for issuance of the final regulations is a challenge for the Department of Energy. Nonetheless, in response to this requirement, the administration is working very hard on a proposed rule which we hope to issue for public comment in the very near future. The draft rule was transmitted by DOE to the Office of Management and Budget on March 16, 2007, and is cur-

rently in interagency review process. While I cannot speak to the details of the draft notice of proposed rulemaking at this time, we will provide briefings to this subcommittee and others in Congress as soon as possible.

At the same time, we are reviewing the initial round of pre-applications under the August 2006 guidelines and developing final regulations. The Department is also moving aggressively to staff its Loan Guarantee Program Office. The Secretary has issued a charter for the Credit Review Board, a requirement under the policies governing Federal credit programs in OMB Circular Number A–129 and the Secretary has designated officials within the Department to serve on this board.

In addition, we are actively seeking to recruit a qualified individual to supervise the office's operations now that funding has been appropriated for the Loan Guarantee Office. Moreover, for the interim period, while we work through the process of hiring the appropriate technical experts to run this office, the Department has secured the services of certain employees with subject matter expertise detailed from elsewhere in the Federal Government.

This should give you a sense of the determination of the Department to fully implement Title XVII Loan Guarantee Program as expeditiously as possible, consistent with the requirements of the law. That concludes my prepared testimony. I would be happy to respond to any questions you may have, sir.

[The prepared statement of Mr. Spurgeon follows:]

Testimony of
Acting Under Secretary
Dennis R. Spurgeon
U.S. Department of Energy

Before the
Committee on Energy and Commerce
Subcommittee on Energy and Air Quality
U.S. House of Representatives

Regarding the Department of Energy's Implementation
of the Loan Guarantee Program
Under Title XVII of the Energy Policy Act of 2005

April 24, 2007

Chairman Boucher, Ranking Member Hastert, and members of the Subcommittee, I am pleased to be with you today to address the important steps underway at the Department of Energy to implement the Loan Guarantee Program contained in Title XVII of the Energy Policy Act of 2005.

Title XVII authorizes the Secretary of Energy, after consultation with the Secretary of the Treasury, to make loan guarantees for projects that "avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued." Under EPACT 2005, many types of energy-related projects, including renewable energy systems, efficient electric generation and transmission systems, coal gasification, carbon sequestration, advanced nuclear energy facilities, biomass projects such as waste to cellulosic ethanol, and refineries, among others, are eligible for loan guarantees under this Title.

A principal goal of Title XVII is to encourage commercial use in the United States of new or significantly improved energy-related technologies at an earlier date than the marketplace might otherwise support. DOE believes that accelerated commercial use of new and improved technologies will help to sustain economic growth, yield environmental benefits, enhance energy security, and produce a more stable and secure energy supply and economy for the United States.

We believe that consumers will also benefit from a carefully implemented Title XVII loan guarantee program which will provide access to advanced technologies. For example, such loan guarantees may provide the necessary assurance to the capital finance market to enable financing for new technologies and those not yet proven in U.S. markets (e.g., biorefineries or coal-to-liquids facilities) that would not otherwise be able to obtain financing at a rate competitive enough to undertake construction and operation.

Although Congress enacted Title XVII in August 2005, the Department received the first necessary funding and authorizations needed under the Federal Credit Reform Act of 1990 in the Continuing Resolution (CR) enacted February 15, 2007 (Public Law 110-5). Requests by the Department in 2006 for Congressional approval to reprogram funds in FY 2006 to fund a Loan Guarantee Office were unsuccessful. The CR provided $7 million in funding for administrative expenses of a Loan Guarantee Program Office and the 2008 Budget requests $8.4 million for these expenses. The CR also included authority to issue guarantees for up to $4 billion in loans. The Department anticipates having authority available to guarantee $9 billion in loans in FY 2008.

I want to assure you that the Department is moving aggressively to fully implement the Title XVII Loan Guarantee Program, as this program is a high priority for everyone at DOE from Secretary Bodman on down.

Indeed, even before the CR gave the Department the authorizations and funding needed to carry out the Title XVII Loan Guarantee Program, the Department was hard at work addressing the twin objectives underpinning Title XVII: advancing the early commercialization of new and improved energy technologies beneficial to the environment, and minimizing the financial exposure of the United States. Thus, to move the effort forward, and to gain needed experience with the statutory, regulatory and commercial concerns integral to the operation of a loan guarantee program, the Department, in August 2006, published Guidelines in the *Federal Register* that specified the process by which DOE would review and approve the first round of loan guarantee applications. At the same time, we issued a Solicitation under the Guidelines that invited project sponsors to submit Pre-Applications for projects in support of the President's Advanced Energy Initiative. These materials and other relevant documents are available at www.lgprogram.energy.gov.

We received 143 Pre-Applications in response to the August 2006 Solicitation, and are now working to evaluate them. Invitations to submit full Applications will be issued to selected applicants as soon as possible. Under the CR, however, the issuance of loan guarantees, in response to the August 2006 Solicitation and pursuant to any future

solicitations, cannot occur until the Department issues final regulations for the Title XVII program. Section 20320(c) of the CR states that the final regulations must be issued within six months of the date of enactment, *i.e.* by August 15, 2007.

The August 2007 deadline for issuance of final regulations is a challenge for DOE. Nonetheless, in response to this requirement, the Administration is working very hard on a proposed rule which we hope to issue for public comment in the near future. The draft rule was transmitted by DOE to the Office of Management and Budget on March 16, 2007, and is currently in the interagency review process. While I cannot speak to the details of the draft notice of proposed rulemaking at this time, we will provide briefings to this Subcommittee and others in Congress as soon possible.

At the same time that we are reviewing the initial round of Pre-Applications under the August 2006 Guidelines and developing final regulations, the Department is also moving aggressively to staff its Loan Guarantee Program Office. The Secretary has issued a charter for a Credit Review Board (CRB), a requirement under the policies governing Federal credit programs in OMB Circular No. A-129, and the Secretary has designated officials within the Department to serve on the CRB. In addition, we are actively seeking to recruit a qualified individual to supervise the Office's operations now that funding has been appropriated for the Loan Guarantee Office. Moreover, for the interim period while we work through the process of hiring the appropriate technical experts to run this Office, the Department has secured the services of certain employees with subject matter expertise detailed from elsewhere in the Federal government.

This should give you a sense of the determination of the Department to fully implement the Title XVII Loan Guarantee Program as expeditiously as possible consistent with the requirements of the law. That concludes my prepared testimony. I would be happy to respond to any questions you may have.

Mr. BOUCHER. Well, thank you very much, Mr. Spurgeon. We appreciate your informing us of the status of the program from your perspective. Do you now believe that with the passage of the continuing resolution and the allocation of resources specifically to your department in order to carry forward the Loan Guarantee Program, that you have adequate staff and resources in order to perform this work?

Mr. SPURGEON. Well, we are in the process of obtaining adequate staff. We believe we have adequate resources at this time, sir.

Mr. BOUCHER. All right. Let me try to get you to be a little bit more precise about when your final rule is going to be implemented, allowing you to move forward with the program. The Appropriations Committee and the continuing resolution requires you to have that rule in place by August of this year. By August of this year, it will have been 2 years since the enactment of EPAct 2005 that established the Loan Guarantee Program and while I understand your explanation that you did not receive funding, specifically, to carry this work forward, it seems to me that from the time the CR was adopted until August you would have had a period of what, 5 or perhaps 6 months? That occurred, I think, in January or early February. And so the question really now is why can't you get this finished by August? What stands in the way of doing that? Secretary Bodman recently testified that it was highly unlikely that would happen. Why not?

Mr. SPURGEON. Well, I think the Secretary is reflecting the reality of a very important rule that we do anticipate that will have substantial public comment and input when we do issue the draft rule. For a rule of this type, 6 months is a short period in time. We do recognize we got a very late start, but we did, as I testified, and it is a matter of public record, get our draft notice of proposed rulemaking into interagency comment within 1 month of having the continuing resolution passed, so it is a priority. It is a personal priority of Secretary Bodman and I can attest to that because it is a personal priority of mine, as well.

Mr. BOUCHER. So you are saying that it is essentially out of your hands at this point; it is in the hands of OMB and other agencies that have to review it.

Mr. SPURGEON. But we do go through the interagency review and concurrence process and this is obviously a very important issue to agencies other than just the Department of Energy.

Mr. BOUCHER. All right. The statute adopted in August of 2005 also says that project applicants for a loan guarantee can self-fund the Government's risk in issuing the loan guarantee, meaning that you would not have to get an appropriation and yet, your preliminary guidance to the applicants says that you will not approve loan guarantees until you have approval of the projects from the Appropriations Committee. Well, I see a puzzled look on your face. If that is not accurate, tell me it is not accurate. It is our information that your preliminary guidance did, in fact, contain that statement. Is that not accurate?

Mr. SPURGEON. Yes, sir. At that time. It was before there had been an authorization in an appropriations bill.

Mr. BOUCHER. Well, but that avoids the question. When the applicant can self-fund the Government's risk, you would not need an

authorization in an appropriations bill. Why did you ask for one, anyway?

Mr. SPURGEON. I can only answer that it is my understanding and obviously, I would like to give you a better answer than what I can do here, personally, for the record, but it is my understanding that we did require an authorization in an appropriations bill notwithstanding the issue of the self-funding.

Mr. BOUCHER. Well, that is right and my question is why did you do that?

Mr. SPURGEON. Let me give you that answer.

[Mr. Spurgeon responded for the record:]

Section 20320(a) of Public Law 110-5, the Revised Continuing Appropriations Resolution, 2007 only authorized the DOE to accept credit subsidy cost payments from borrowers for the full subsidy costs of loan guarantees. Consistent with Public Law 110-5, no appropriation has been sought or received to cover the credit subsidy costs, which, under Public Law 110-5 and the Department's proposed final regulations must be self-funded by the loan guarantee applicant. However , the Department is required under the Federal Credit Reform Act to obtain budgetary authority to cover the loan volumes that are going to be guaranteed. For fiscal year 2007, Congress authorized the Department to issue up to $4 billion in loan guarantees under title XVII of the Energy Policy Act of 2005. Additionally, the Department is required to seek and has obtained budgetary authority and an appropriation in the amount of $7 million for the administrative costs of operating the Loan Guarantee Program in fiscal year 2007.

Mr. BOUCHER. Because that has significantly delayed projects, and in the minds of a number of project applicants who have expressed to this committee great frustration with the fact that that requirement was put in place, I would say, needlessly. Why the 64 percent cap on the amount of a project cost that will be subject to loan guarantee when the statue authorizes 80 percent?

Mr. SPURGEON. Well, what will come out in the final rule is yet to be determined. I certainly recognize the question that you ask. I certainly recognize, and we do take into consideration, the significant amount of comments that we have received following that initial effort.

[Mr. Spurgeon responded for the record:]

To harmonize and balance the twin goals of issuing loan guarantees to encourage the use of new or slightly improved technologies while limiting the financial exposure of the Federal Government, the Department expressed a preference in the August 2006 guidelines that accompanied its initial solicitation for guaranteeing no more than 80 percent of project costs. Assuming that 80 percent of a project's cost is financed by debt guaranteed by the Federal Government under title XVII, this created a theoretical limit on the amount of a guarantee under the initial solicitation equal to 64 percent of project costs.

The Department is currently reconsidering the appropriate limit to place on the percentage of debt instruments eligible for loan guarantees. In a May 16, 2007 Notice of Proposed Rulemaking, the Department proposed to raise 90 percent the portion of debt instruments that it would guarantee. Comments on the NOPR were due by July 2, 2007. Upon review of the comments, the Department will determine whether the proposed 90 percent limit, some other limit, or no limit should be adopted.

Mr. BOUCHER. All right. Well, I would leave it to you to consider very carefully that and hopefully you will come forward with 80 percent. One other question, Mr. Secretary, why a cap on the total amount of loan guarantees to be issued when applicants obviously have the opportunity to self-fund? Why is that necessary?

Mr. SPURGEON. Well, I believe there is a requirement under FCRA that there be a cap. In other words, we can't issue loan guarantees for an uncapped amount.

[Mr. Spurgeon responded for the record:]

The Federal Credit Reform Act of 1990 requires that there be budgetary authority which caps the loan volume to be guaranteed.

Mr. BOUCHER. Where does that requirement come from?

Mr. SPURGEON. Well, let me try one of two things. I would have to turn around and ask one of my attorneys or be able to give you an answer and I would prefer to give you the answer for the record, sir.

[Mr. Spurgeon responded for the record:]

Specifically, the requirement that loan guarantees be covered by budgetary authority is contained in the Federal Credit Reform Act of 1990 at 2 USC §661c(b).

Mr. BOUCHER. Well, I will look forward to receiving the answer. The CR imposes a cap, but only for a 1-year period and so that would not be a cap for the long-term program and if applicants can self-fund, there is no need for a cap and I would encourage you not to impose one as you put this final rule forward. My time has expired and I recognize the gentleman from Illinois, Mr. Hastert, for 5 minutes.

Mr. HASTERT. I thank the chairman and some of your answers really puzzle me. Explain to me, it has been 20 months after we passed this piece of legislation. How come loan guarantees have not yet been made?

Mr. SPURGEON. Well, sir, first of all, and I believe Mr. Barton also referred to it, we did request authority to reprogram funds within the Department in order to stand up a loan guarantee office very shortly after the Energy Policy Act was passed. That reprogramming request was not approved, sir, therefore we did not have the authority to stand up a loan guarantee office, to hire the people that would be responsible for reviewing and making recommendations to the Secretary relative to the issuance of those loan guarantees, so we went forward with doing what we thought we could, legally and responsibly.

Mr. HASTERT. But what was that?

Mr. SPURGEON. Well, that was the initial solicitation that was issued in the summer of 2006 in order to get preliminary solicitation for projects that would potentially, then, be eligible for those guarantees.

Mr. HASTERT. So you said 6, 7 months ago you had ability now to move forward and solicit?

Mr. SPURGEON. No, we went out for pre-solicitation.

Mr. HASTERT. Stand-up solicitation.

Mr. SPURGEON. Yes, to stand up the office and we issued a request that, to get the ball rolling, if you will, to indicate these are not applications, but they are pre-applications from parties that might be interested in loan guarantees in order to be able to get experience, as I indicated in my testimony, with the kind of system and regulations that we were going to need to put in place to actually fully implement this program. But we did not feel, at the time, that we had the authority to actually issue loan guarantees. We were trying to move the process forward.

Mr. HASTERT. Why?

Mr. SPURGEON. Because, as I mentioned, we did not have an authorization in an appropriations bill.

Mr. HASTERT. But, as the chairman said, you don't have to appropriate money.

Mr. SPURGEON. Well, we don't have to appropriate money for the cost, the administrative cost of carrying out the loan or for what we would call the subsidy cost if it is self-funded, that is correct. So it still comes down to did we feel we had the authority to issue a loan guarantee and we did not. It was the opinion of the Department and, I believe, supported by the administration, that at that time, lacking an appropriations bill. We anticipated that we would get this in the appropriations bill that never happened.

Mr. HASTERT. OK, the Department of Energy lacks the will to make the decision on this, is that what you are saying?

Mr. SPURGEON. Not at all. We have the authority at this point and we are moving forward aggressively, sir.

Mr. HASTERT. All right. Where does this whole idea of 80 percent of 80 percent come from?

Mr. SPURGEON. The basis of 80 percent of 80 percent and obviously, as I indicated, this is something that will be part of the rulemaking process and part of the comment process.

Mr. HASTERT. But rulemaking, you read the language of the bill; it said 80 percent.

Mr. SPURGEON. It does, the authorization——

Mr. HASTERT. The legislative intent was 80 percent.

Mr. SPURGEON. I understand that, sir.

Mr. HASTERT. It was the intent of this committee of 80 percent.

Mr. SPURGEON. I understand that.

Mr. HASTERT. It was the intent of the Speaker of the House at that time, it was 80 percent, not 80 percent of 80 percent. Why are you looking at something different?

Mr. SPURGEON. Well, what we will actually look at is not through the interagency process yet relative to what the recommendation——

Mr. HASTERT. That is not an answer.

Mr. SPURGEON. It is a difficult one. I have to say it is a difficult question for me because—it shall not exceed 80 percent is the language.

Mr. HASTERT. Not 90 or 100 percent.

Mr. SPURGEON. But I understand. But we also have the consideration of FCRA and whether that imposes a limit through its implementation, I think, was somewhat of the question, but nonetheless, I want to assure you that that issue is one that is receiving a great deal of attention within the administration as to what the recommended limitation on the amount of the guarantee for a loan will be and that is something that will be discussed. It will be subject to public comment and will eventually be decided on, on a broad interagency governmental basis.

Mr. HASTERT. Well, let me just say two things in closing. If there is anything that this committee is probably united on, was the intent of what that bill said and for you to do something different, I think it would be catastrophic. Second thing is if your administration was involved in World War II and it was 20 months before any

decision was made at all before we made a decision on what we were going to do in the D-Day invasion, we wouldn't have ships, we wouldn't have tanks, we wouldn't have anything to move forward with. I think what we are trying to do on energy independence and energy security in this country not quite lines up with World War II, but it is pretty important and I think your agency has been sorely lacking in making progress. I yield back.

Mr. BOUCHER. I thank the gentleman for his questions. The gentleman from Georgia, Mr. Barrow, is recognized for 8 minutes.

Mr. BARROW. Thank you, Mr. Chairman. Mr. Spurgeon, my Uncle Bill, the legendary Dean Tate at the University of Georgia, was fond of saying that working with a sorry boy who won't try is a little bit like going bird hunting and having to tote the dog. But I listened to Speaker Hastert's questions and I listened to your statement, I am not sure who thinks who is the dog in this picture, but I am kind of concerned to make sure, at least, we are all hunting the same thing. So I want to ask a couple of questions, at least to make sure that we are not in for a surprise at the end of this round.

If I understand correctly, we are not moving forward much with implementing the title XV. We are still working on the title XVII and what concerns me is there is clearly a gap between the two in terms of their purpose and their intent. But I want to make sure there is something I am very concerned about that is squarely authorized under title XV is not going to wait its turn while we are trying to go forward with title XVII only to find out that it is not going to be foursquare inside of what you all have in mind.

When I look at the title XVII, we are talking about new technologies for things like cellulosic ethanol, for example. Cellulosic ethanol is something I am very interested in because we are going to break ground this year, in my district, on the first commercially viable cellulosic ethanol plant in the country and it should be operational by the end of this year. But we are going to need 13 plants like that in order for Georgia to become self-sufficient in its transport energy needs, self-sufficient; 13 of those things can do it.

Now what I am concerned about is to make sure that we are not going to find some surprise at the end of this current delay in trying to get title XVII loan program up and running to find out that that is just going to be for research and development and new technology. It is not going to be available to implement existing technology. I want to make sure the folks are doing what the range fuels people are doing in Treutlen County, GA is something they are going to qualify for at the end of this current waiting period, that we are both hunting after the same opportunity for them or people like them to be able to get going with what you are working on right now. Is that true?

Mr. SPURGEON. It is true. The whole purpose of title XVII is commercialization, sir, and you are speaking of cellulosic ethanol; that fits squarely within the intent of the program. That is a program that has a high priority within our department. It has a high priority with the Secretary.

Mr. BARROW. So you are assuring me and the industry that the end of this rulemaking process, when the regs are finally issued and the authority is there under the CR and under the appropria-

tion for the next budget, that folks who want to build something with existing technology is going to be able to apply for and qualify under the title XVII you are working on right now?

Mr. SPURGEON. Right. Yes, sir. It does apply to new and innovative technology. Something that is already in commercial application would have to be looked at based on that, but title XVII does relate to new, innovative technologies. It is not designed for something that is already in the marketplace.

Mr. BARROW. Well, this new and innovative technology that is on the drawing board, there is an experimental plant that is going up in Treutlen County, GA that just qualified for a $77 million assistance grant because it is the first one going. Is that fact that they are going to be first basically going to disqualify everybody else in the field from doing it because it is existing technology?

Mr. SPURGEON. No.

Mr. BARROW. I want to make sure that isn't going to happen.

Mr. SPURGEON. It is a matter of being commercial, sir, not being—you want technology that has been proven. Title XVII is not an R&D type program. Title XVII is a commercialization program.

Mr. BARROW. Fair enough.

Mr. SPURGEON. And so the issue is, is it in commercial use?

Mr. BARROW. So the question is going to be what is somebody who wants to replicate what they are going to do in Treutlen County at the range fuels place, what can they expect by the end of this year? What is going to be available to them and what are they going to be able to do?

Mr. SPURGEON. I am going to try and be realistic as to how long it will take to actually get loan guarantees issued through the Department.

Mr. BARROW. Exactly. That is what I want an answer to.

Mr. SPURGEON. And I would say it would be very aggressive to have a loan guarantee program that is actually issuing loan guarantees by the end of this year.

Mr. BARROW. What is going to be very realistic as opposed to very aggressive, because very aggressive says it isn't going to happen. You are basically saying right up front it isn't going to happen in this timeframe, so what is the realistic timeframe? When can folks expect to apply for something and qualify for it and actually get something?

Mr. SPURGEON. Actually get it, I would say, early in 2008, sir.

Mr. BARROW. How early? Middle of the year?

Mr. SPURGEON. No, I think it can be earlier than that. I think our target is to have it up and running so that these can be issued in the first, early part of the year but now I am off in the projection area before we even have the rule out and before we even implement it, so there is nobody who wants to have this program executed correctly more than do I.

Mr. BARROW. Oh, actually I think I want it executed much more correctly than you do because I have got something going in my district and my State has got a lot to offer in the cellulosic ethanol field, but I still want to have a realistic estimate and your desire and your anxiety to do this is commendable, but I want to know when you think it is going to happen. The first quarter of next year?

Mr. SPURGEON. That would be my guess and I am going to phrase it just like that. That is a guess.

Mr. BARROW. What is your best estimate?

Mr. SPURGEON. It would be the same. It would be the same period.

Mr. BARROW. OK. Thank you, sir. I yield back.

Mr. BOUCHER. Thank you, Mr. Barrow. The gentleman from Arizona, Mr. Shadegg, is recognized for 8 minutes.

Mr. SHADEGG. Thank you, Mr. Chairman. Mr. Spurgeon, I feel your pain. I don't want to beat up on you, but I have got to tell you, I am a little bit of a skeptic about Government programs and if I were, perhaps, trying to teach a class why I have some skepticism about the ability of government to innovate or to implement, I might want to encourage them to read your opening statement and review your testimony here today.

It says to me if you want government to innovate and move fast, you picked the wrong entity to do it because it is not government, it is going to be the private sector, which causes me to have a little bit of concern about my colleagues' enthusiasm for a loan guarantee program by government. As a matter of fact, it causes me to say if we are counting on government to solve these problems, you may be picking the wrong horse to ride.

Having given that preamble, let me begin by saying first, I want to give you an opportunity to, in your words, tell me what you would say, in a sentence or two or a paragraph, to my constituents who believe that renewable energy systems, efficient electricity generation and transmission systems, coal gasification and carbon sequestration, advanced nuclear and biomass projects are vitally important, what would you say to them in plain English at, say, a town hall meeting about where we are in the process and why there has been some delay?

Mr. SPURGEON. We are in the beginning of the process at this point. We can put a lot of reasons behind the delay, not having the necessary funding to begin the office, not getting started with the rulemaking until that point in time. We are now going through that process and it is a sometimes painful step-by-step process to put forward a major rulemaking in government and I have to say my whole career has been outside of government, not in government, so this is frustrating to me, as well. But I would explain the process.

I would explain the need to not only pursue, as aggressively as possible, loan guarantees that can be supportive of introducing this advanced technology sooner than it might otherwise have been able to support how doing this can perhaps reduce the cost of the product from that technology to the consumer, but also recognizing that we cannot afford to have programs implemented that do not protect the American taxpayer and that they are done properly. And so we are going through a painful process, but the proper process in order to allow that to actually happen and unfortunately, it is slow.

Mr. SHADEGG. And would you say a part of the fault lies with the appropriations process in the Congress? Or you are not willing to go that far?

Mr. SPURGEON. Well, I would only say we did request a reprogramming and it was not approved.

Mr. SHADEGG. My constituents would say what is a reprogramming? Since we are talking in town hall terms. So on one hand, the Government is telling you to do it immediately and on the other hand, the Government is saying well, we won't give you the money to do it immediately. Is that correct?

Mr. SPURGEON. I think we have had a divergence of opinion relative to the loan guarantee issues across the board in our Government.

Mr. SHADEGG. I believe just a moment ago, I think in response to Mr. Barton, you said we now do have the authority to proceed?

Mr. SPURGEON. Yes, sir.

Mr. SHADEGG. And yet, in response to my colleague from Georgia's comments, you said we would have to be very aggressive to get it by the end of this year and more likely it is sometime early next year. That is correct?

Mr. SPURGEON. That is an honest guess.

Mr. SHADEGG. Again, talking to my town hall, not talking to a congressional hearing, we are talking to my town hall in Phoenix, AZ, walk me through what you have left to do that could delay us beyond the end of this year? Just in layman's terms each step that needs to be accomplished and I am going to ask you at the end to say what this Congress might do to expedite that, if anything.

Mr. SPURGEON. Well, first step is the rule. We need to establish a rulemaking that will establish the process by which these loan guarantees can be applied for, the process by which one can calculate the self-funding aspect of what the subsidy costs.

Mr. SHADEGG. I want to make sure that one of my environmentalists couldn't raise his hand and say well, couldn't you have done this rule earlier?

Mr. SPURGEON. Well, we seem to be a little bit, I don't mean to put it a little bit damned if we do and damned if we don't because on the one hand——

Mr. SHADEGG. Well, you would be the first Government agency in that position.

Mr. SPURGEON. Going slow and on the other hand we are being criticized because we have gone beyond what our authority might have been.

Mr. SHADEGG. We are going to get a rule?

Mr. SPURGEON. Yes, sir. We have got to get a rule and that the mandated timeframe for that is August 15 and we have been quite forthcoming in saying we are going to do everything we can to meet that date, but the Secretary is on record as saying that is a very aggressive date and so that is the next step. Then what we have got to do is we are going to have to implement that rule and that is going to be obtaining, going out and getting the proposals.

Mr. SHADEGG. Those will be the official proposals?

Mr. SPURGEON. Those will be the official proposals.

Mr. SHADEGG. Not the preliminary proposals?

Mr. SPURGEON. Yes. And some of the ones that were part of the preliminary package can still go forward. I am not saying that—now that we have the authority, those can be evaluated and they are being evaluated at the Department at this time. But you are now looking at getting these applications in, reviewing the applications and that needs to be a careful process, so by the time you go

through that, if we are looking at the 1st of September or thereabouts for having the rulemaking done, then you are looking at the time needed to get applications in, to review those applications and to do all of the final due diligence that would be needed in order to then issue a loan guarantee for that project. And just looking realistically, that is something that would be very difficult to do in less than 90 days and that is where you get to the timeframe.

Mr. SHADEGG. So let us review. It is establish a rule, process the applications.

Mr. SPURGEON. Well, basically issue the loan guarantee.

Mr. SHADEGG. And is there anything this Congress can do to expedite that, in light of the fact that we face serious energy problems? Any recommendation you can make to this committee?

Mr. SPURGEON. Not in that process. I think that process is going on and your support, I think, obviously, when we know as an agency, that we have the strong support of the Congress to make this move in a hurry and that it is not unanimous. That is always a little bit of a stretch. But when it is a solid mandate that loan guarantees are important, that is always helpful to us.

Mr. SHADEGG. Nothing further. I yield back.

Mr. BOUCHER. Thank you, Mr. Shadegg. The gentleman from Texas, Mr. Barton, is recognized for 5 minutes.

Mr. BARTON. Thank you. And I apologize, Mr. Secretary, if I asked something that you have been asked while I am out of the room. My first question is pretty straightforward. Are we clear that the congressional intent 80 percent is 80 percent?

Mr. SPURGEON. You certainly have made that clear to me.

Mr. BARTON. Is there something that we need to do to officially follow up with DOE or OMB? I am dumbfounded that there is a debate about 80 percent isn't 80 percent.

Mr. SPURGEON. It would not be for me to tell the ranking member the means by which to exert influence, but that is something that is a matter of debate.

Mr. BARTON. If we could get Mr. Boucher and Mr. Hastert and Mr. Dingell and myself, send a letter, that might be helpful?

Mr. SPURGEON. I think it would be going beyond my position, sitting here, to suggest how one might proceed to have influence in the process.

Mr. BARTON. Well, let us go to the next question. What has been the real problem in meeting this deadline? Is it a policy problem? Is it a manpower problem? Is it a disagreement in the administration that you really don't want a loan guarantee? It would seem to me that it might take you some time to sort through the applications. I understand that and there have been a lot of preliminary requests for loans, but I don't understand why it would take a long time to set the rule up, itself. It is pretty straightforward. The law says what qualifies. You have got to put some definitions, put some timelines complying with Government procurement requests for proposals, but it is pretty straightforward. What has been the real hang up here?

Mr. SPURGEON. Well, I think it, as I mentioned in the opening testimony, we did issue a notice of proposed rulemaking, meaning our draft rule and put it into interagency comment within a month of actually having the continuing resolution passed and actually,

within about 2 weeks or so, of having funds allocated. The allocation of funds didn't come right instantly when the continuing resolution was passed, so we did move very quickly within the Department, very aggressively, to establish a proposed rule and we have put that into the interagency process, we do this in consultation with——

Mr. BARTON. Has there been some huge kickback? Has there been some amazing amount of consternation about the proposed rule that just you have gone beyond the payola and, oh my God, I can't believe that is the way you want to do it? I have not heard it. Nobody has called at my office and said you know, former Chairman Barton, you won't believe what those bozos at DOE did in the proposed rule. It would seem to me that unless you have got a manpower problem like Chairman Boucher talked about, that we could get this thing out there by the August deadline.

Mr. SPURGEON. Well, I think the next step will be, we will get comments back from the review process and then we will make modifications to the draft rule that was drafted by the Department and that that will then be for public comment.

Mr. BARTON. Have there been any unforeseen comments? Have there been something that a light went on and you said we didn't really think about that?

Mr. SPURGEON. I would not put it in that context, no.

Mr. BARTON. OK. My last question, why did you not allow nuclear projects to qualify for your original loan solicitation? What was the decision process there?

Mr. SPURGEON. It was, I think, in plain English, a little bit of a walk before you run. The total loan limitation that was established for this initial round was $2 billion and a nuclear plant would most likely be above that number, but also practically speaking, we did not see, in this timeframe for that initial round, that there would be nuclear plants that would be in position——

Mr. BARTON. So there is no philosophical opposition?

Mr. SPURGEON. There is no philosophical opposition and I think, many times in public, as well as the Secretary, we have spoken to the applicability of loan guarantees——

Mr. BARTON. And once we get this rule in place, you fully expect, as we ramp up the actual loan guarantee authorization, the availability of loans, that there will be solicitation for nuclear projects?

Mr. SPURGEON. We do anticipate that.

Mr. BARTON. It is very important. It is very important that we get that first one. We put a limitation in the Energy Policy Act. It wasn't open ended. I think it is the first five. There is a specific number.

Mr. SPURGEON. Well, there is not a limitation on a number in the loan guarantee section, sir. We do have, in standby support, a section of the Energy Policy Act that applies. The standby support would apply to the first six and there is a limitation of $500 million for the first three.

Mr. BARTON. But it is really important to get that first one to show the world that we can build a new generation of nuclear power plants in this country.

Mr. SPURGEON. I absolutely agree with you, sir, not just the first one, but that we then sustain this growth of nuclear energy in the United States.

Mr. BARTON. Thank you, Mr. Secretary, and thank you, Chairman Boucher.

Mr. BOUCHER. Thank you very much, Mr. Barton. I ask unanimous consent to place in the record a letter to Peter Visclosky, chairman of the Energy and Water Development Subcommittee of the House Appropriations Committee, and the Honorable David Hobson, the ranking Republican member of that subcommittee, a letter from the GAO dated April 20, 2007, which states that EPAct confers upon the Department of Energy independent authority to make loan guarantees notwithstanding the requirements of the Federal Reporting Act and for your information, that letter so states. So without objection, that letter will be made a part of this record.

The gentleman from Illinois, Mr. Shimkus, is recognized for 5 minutes.

Mr. SHIMKUS. Mr. Spurgeon, you are a service academy guy, I find out and you know, we academy guys, we have these interesting relationships. When we are together alone, we like to pick on each other and make fun of each other, but when the going gets tough and one is under the gun, we want to be around to be supportive. So and you are a nuke guy.

And I liked John Shadegg's line of questioning because another case study is how people who have been in the private sector come into the Government agencies and they just get eaten up by them, the bureaucracy. There are all these case studies about these great heads of major corporate America that come in that are going to be the guy to affect the bureaucracy and they usually leave with their tail between their legs because it is just too big of a monster to get a handle on.

A couple of quick questions. In your testimony you mentioned that the loan guarantees benefit consumers as opposed to a 50 percent debt/50 percent equity. Can you explain that quickly for me? Why do you believe that?

Mr. SPURGEON. Well, just based on the cost of capital. If you are financing a plant with 50 percent debt/50 percent equity, equity is going to cost for a new nuclear plant something in the neighborhood of 15 to 18 percent. Debt is going to be, if it is guaranteed debt, it could be around 6.5 percent or so. If it is straight debt, unguaranteed, it could be somewhere in the 12 percent range, but nonetheless, the greater you can leverage a project, the lower the average cost of capital will be. And those who might be attacking the loan guarantees as subsidy to major energy interests, there is probably a consumer benefit to this, as we move forward.

Mr. SHIMKUS. Isn't it true that the Export-Import Bank provides loan guarantees with 100 percent of loan coverage and that the Overseas Private Investor Corporation does the same, that the Transportation Infrastructure Financing Authority provides 100 percent loan coverage, that the Small Business Investment Corporation loan guarantees provide 100 percent loan coverage? Isn't it true that 100 percent loan coverage is a norm rather than exception?

Mr. SPURGEON. Well, there are many agencies, as you point out, that do offer 100 percent loan coverage and in the private sector, I actually had one of those kind of loans, so I understand that.

Mr. SHIMKUS. So you can understand that when we go with 80 percent and we think that is our intent, that we want to do everything we can to ensure that that is the intent? Another case study as to once the law that has been passed by the legislature is signed into law and then the Federal agency changes that and so many times we have hearings and we have to address new legislation and it is a ping pong ball that goes back and forth, which doesn't make a lot of sense to a lot of us.

Is it correct that a new electricity generation project to be built overseas can get a more favorable term from the Export/Import Bank than it could receive under the August 2006 loan guarantee guidelines published by the DOE?

Mr. SPURGEON. It is certainly possible.

Mr. SHIMKUS. Hence our frustration. This is a big issue for all of us; energy independence, a lot of great technology out there. The chairman wants to move legislation and we want to encourage and help and assist in that. A lot of that will be built upon the success of EPAct or the failure of EPAct based upon what we intended to do and what didn't occur based upon the timeline, so I think you have received enough of our frustration. We would encourage you to move expeditiously to help us move forward. And with that, Mr. Chairman, thank you for recognizing me and I yield back.

Mr. BOUCHER. Thank you very much. I appreciate the gentleman's questions. The gentleman from Texas, Mr. Burgess, is recognized for 5 minutes.

Mr. BURGESS. I apologize, Mr. Chairman, for not being here at the start of the hearing. We are having some bad weather back home and I needed to make sure everyone was OK. And I am also sensitive to the fact that we have got a vote in a few minutes, so I will try to be brief.

Mr. Secretary, thank you for being here today. I am sure that the concern has been expressed over and over again by the members of the committee about the fact that we haven't had a new nuclear facility construction in this country in 30 years. We are now faced with the possibility that some of us, some in Congress are going to want to cap carbon emissions and reliance on nuclear energy or nuclear generation for electricity seems to make a great deal of sense to me. You talked, in your testimony, about the authorization under title XVII and the documents indicate a possible allocation for $4 billion of the $9 billion for central power generation facilities. May we then assume that nuclear coal-based technologies are going to have to compete for funding under this cap?

Mr. SPURGEON. Well, the $4 billion is not stated as either a cap or a floor within the $9 billion, but I think it is a recognition of the desire to have a somewhat balanced portfolio, but obviously, we have, as the testimony shows or as the record shows, we have more in applications, even under the preliminary applications for loan guarantees than there is loan guarantee ceiling available to us, so there obviously will be some competition for loan guarantee funds.

Mr. BURGESS. And again, the rationale for that competition?

Mr. SPURGEON. It is the idea of how much ceiling would be available to issue loan guarantees.

Mr. BURGESS. But do we run the risk of being in the position of either us or the administration picking winners and losers? Shouldn't we just allow the competition to proceed and see where the market goes?

Mr. SPURGEON. Well, if there is a budgetary ceiling on the amount of loan guarantee ceiling available, bad sentence, but the idea being, then we are going to somehow have to select among those projects.

Mr. BURGESS. Thank you, Mr. Chairman. In the interest of the vote, I will yield back the balance of my time.

Mr. BOUCHER. Thank you very much and Mr. Burgess, the gentleman from Louisiana, Mr. Melancon, waives questions. Well, Mr. Spurgeon, you are now excused and we thank you very much for your attendance here today. We are going to be submitting some follow-up questions to you by a letter and we would appreciate your expeditious response. The letter and the responses will be made a part of today's proceedings. Thank you, Mr. Spurgeon.

Mr. SPURGEON. Thanks.

Mr. BOUCHER. Let me welcome our second panel of witnesses. Mr. James Cosgrove is the Acting Director of the Natural Resources and Environmental Division of the Government Accountability Office; Julie Jorgensen is the co-president and chief executive officer of Excelsior Energy, a company developing an integrated gasification cycle facility in northeastern Minnesota; Denny DeVos is the director of corporate finance for POET, the largest dry mill ethanol producer in the United States, formerly known as Broin Companies. POET is located in Sioux Falls, South Dakota.

Christopher Crane is the senior vice president of Exelon Corporation and the president and chief nuclear officer of Exelon Nuclear. I want to say welcome to each of our witnesses and thank each of them for joining us here this afternoon. Without objection, your prepared written statement will be made a part of the record and we would welcome your oral summary, hopefully contained within 5 minutes. Mr. Cosgrove, we will be happy to begin with you.

STATEMENT OF JAMES C. COSGROVE, ACTING DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, GOVERNMENT ACCOUNTABILITY OFFICE, WASHINGTON, DC

Mr. COSGROVE. Thank you, Mr. Chairman, Ranking Member Hastert, members of the subcommittee. I am pleased to be here today to discuss DOE's implementation of a loan guarantee program authorized by title XVII of the Energy Policy Act of 2005. As you have heard, this program is intended to encourage innovative technologies that show promise of decreasing air pollutants and manmade greenhouse gases. My remarks this afternoon are based on the results of our February 2007 report which reviewed DOE's initial efforts to launch the new loan guarantee program.

The findings of this report highlight the need for adequate planning and sound management, both essential to minimize Federal financial liabilities and to ensure the program's success. As you know, by guaranteeing a loan for a project, the Government shoulders some of the projects financial risk. Private lenders are thus

more willing to finance projects and borrowers gain access to credit on morer favorable terms. However, if a borrower defaults on a loan, Federal taxpayers are on the hook to repay the lender.

DOE's program guidelines call for borrowers to be charged fees that cover all program costs, including the costs associated with potential defaults and program administration. Nonetheless, depending on the details of how DOE implements the program, substantial financial risks for taxpayers would remain and let me explain why.

First, taxpayers could be stuck with a bill if DOE underestimates the agency's administrative costs over the life of the loans. DOE intends to require borrowers to pay a fee to cover these expenses. At the time of our review, however, DOE had not determined how it would estimate its administrative costs, recover those costs from borrowers, or fund revenue shortfalls if it collects too little.

The program's subsidy costs also poses financial risk for taxpayers. This cost is essentially the net amount the Government would have to pay a lender in the case of a loan default. All Federal agencies are required to estimate the expected subsidy amounts and set aside sufficient funds in a special treasury account. Estimating default risk and subsidy cost is difficult, especially for the types of innovative projects that would qualify for the program. This is because, in addition to the technological uncertainties, volatile energy prices also effect the economic viability of these projects.

DOE will have to estimate the subsidy cost to determine the amount to charge borrowers, but it had not established policies or procedures for doing so at the time of our review. Instead, DOE had asked potential borrowers, who have an incentive to underestimate these costs, to provide preliminary subsidy cost estimates. If DOE's final subsidy cost estimate is too low, the resulting shortfall would be automatically charged to taxpayers through a permanent indefinite appropriation, not through the annual appropriations process.

Our report identified multiple steps that DOE needs to take to achieve reasonable assurance the program will be well-managed, including the following five key steps: issue regulations, establish a credit review board, set policies and procedures for selecting and monitoring loans and lenders, set policies and procedures for estimating administrative and subsidy costs and accounting for loan guarantees, and set program goals and objectives.

We found that DOE's actions address these five steps either incompletely or not at all. For example, DOE had not issued regulations for implementing the program. Instead of a plan to rely on guidelines for awarding the first $2 billion in loan guarantees, regulations are preferable to guidelines because regulations are more transparent to policymakers and the public, carry the force of law and hold the agency implementing the program and participants accountable to the terms specified.

In conclusion, at the time of our review, DOE did not have in place the critical policies, procedures, and mechanisms necessary to ensure the program's success. In our report we recommended that the Department complete the five key steps just discussed before issuing loan guarantees. Since we completed our audit work, the

Revised Continuing Appropriations Resolution for fiscal year 2007 directed DOE to implement most of our recommendations by issuing final regulations before awarding loan guarantees.

The resolution also requires GAO to review the loan guarantee program annually and to report our findings to Congress. We look forward to working with you and others in Congress to help ensure the success of this program. Mr. Chairman, this concludes my prepared statements. I would be happy to respond to any questions you or the members of the subcommittee may have.

[The prepared statement of Mr. Cosgrove follows:]

United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, House of Representatives

For Release on Delivery
Expected at 2 p.m. EDT
April 24, 2007

DEPARTMENT OF ENERGY

Observations on Actions to Implement the New Loan Guarantee Program for Innovative Technologies

Statement of James C. Cosgrove, Acting Director
Natural Resources and Environment

GAO-07-798T

GAO
Accountability·Integrity·Reliability
Highlights

Highlights of GAO-07-798T, testimony before the Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

The Energy Policy Act of 2005 (EPAct 05) authorized the Department of Energy (DOE) to establish a loan guarantee program (LGP) for energy-related projects that are intended to decrease air pollutants or man-made greenhouse gases and employ new or significantly improved technologies, and that have a reasonable prospect of repayment. Federal law requires appropriated budget authority for LGP costs before program can be implemented. In 2006, before it received appropriations for the program, DOE solicited preapplications to the LGP, stating it intended to issue up to $2 billion in guarantees. It also issued guidelines for these proposals, stating that borrowers would ultimately pay for all costs. Questions were raised about DOE's authority to undertake these activities and whether the activities were based on sound policy.

This testimony is based on GAO's February 2007 report, *Department of Energy: Key Steps Needed to Help Ensure the Success of the New Loan Guarantee Program*, GAO-07-339R. GAO discusses (1) the sources and use of funds for the LGP in fiscal years 2006 and 2007; (2) extent to which the LGP could result in a financial risk to the taxpayer; and (3) steps DOE had taken to implement the LGP. The questions concerning DOE's legal authority were addressed in a recent GAO opinion, B-308715, April 20, 2007.

www.gao.gov/cgi-bin/getrpt?GAO-07-798T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact James C. Cosgrove at 202.512.7029.

April 24, 2007

DEPARTMENT OF ENERGY

Observations on Actions to Implement the New Loan Guarantee Program for Innovative Technologies

What GAO Found

In fiscal year 2006, and continuing through October 2006, DOE used about $503,000 from three separate appropriation accounts to fund LGP activities. DOE used these funds for the salaries of three staff detailed to the LGP office and for contracts to support the program. DOE stopped most LGP development activities at the end of October, but according to the deputy general counsel for energy policy, he and others continued to work on the program by, for example, preparing a notice of proposed rulemaking and reviewing pre-applications for completeness. At the time of GAO's review, DOE officials said they were awaiting appropriations before taking additional implementation steps.

LGP guidelines call for borrowers to be charged fees to cover all program costs, but the program could result in substantial financial costs to the taxpayer if DOE underestimates these costs. Program costs are administrative costs and subsidy costs. While DOE must recover administrative costs, such as its costs for evaluating applications, it had not developed a plan for determining how to estimate costs or recover any shortfalls from borrowers at the time of GAO's review. Appropriated funds may be necessary to cover shortfalls. Subsidy costs are the estimated net present value of the long-term cost to the federal government of guaranteeing the loans over the entire period that the loans are outstanding, excluding administrative costs. Subsidy costs take into account estimated future loan performance, including defaults and delinquencies. DOE will have to estimate the subsidy cost to determine the fees to charge borrowers, but it had no policies or procedures for doing so at the time of our review. Estimating subsidy costs could be difficult because the program targets innovative energy technologies whose future success is uncertain, and loan performance could depend heavily on future economic conditions, including energy prices, which are hard to predict accurately. Under federal law, shortfalls in subsidy costs are funded automatically by a permanent indefinite appropriation, not through the annual appropriations process.

GAO identified five key steps that DOE should take to help ensure that the program will be well managed: issuing implementing regulations, establishing a credit review board to coordinate credit management and debt collection activities, setting policies and procedures for selecting and monitoring loans and lenders, setting policies and procedures for estimating program costs and accounting for loan guarantees, and setting program goals and objectives tied to outcome measures for determining program effectiveness. Rather than taking and completing these key steps, DOE initiated the LGP by soliciting pre-applications for proposed projects. The Revised Continuing Appropriations Resolution for Fiscal Year 2007 (Feb. 15, 2007) appropriated funds for implementing the program and directed DOE to implement most of GAO's recommendations within 6 months of the act.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the results of our February 2007 report on DOE's implementation of the new loan guarantee program for innovative technologies.[1] We prepared this report at the request of the Subcommittee on Energy and Water Development, House Committee on Appropriations.

As you know, the Energy Policy Act of 2005 (EPAct05)[2] authorized the Department of Energy (DOE) to establish a loan guarantee program (LGP) to guarantee loans for projects that were intended to, among other things meet the following three conditions: (1) decrease air pollutants or man-made greenhouse gases by reducing their production or by sequestering them (storing them to prevent their release into the atmosphere), (2) employ new or significantly improved technologies compared with commercial technologies currently used, and (3) have a "reasonable prospect" of repayment. Such projects could include renewable energy systems, advanced fossil energy technologies, and production facilities for fuel-efficient vehicles.

In August 2006, DOE issued a solicitation for preapplications to the LGP, announcing its intention to issue up to $2 billion in loan guarantees. At the same time, it issued guidelines for proposals submitted in response to this first solicitation, stating that the department expected borrowers to ultimately pay for all program costs, including DOE's

---

[1]GAO, *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.: February 28, 2007). Last week, we issued a legal opinion on certain questions regarding DOE's implementation of the loan guarantee program (LGP) under § 1702 of the EPAct 05 and 42 U.S.C. § 7278—*Department of Energy—Title XVII Loan Guarantee Program,* B-308715, April 20, 2007. This opinion discusses DOE's authority to implement and fund the LGP before Congress had appropriated funding for the program in the continuing resolution. We concluded that § 1702(b)(2), confers upon DOE independent authority to make loan guarantees, notwithstanding Federal Credit Reform Act requirements. We also concluded that DOE engaged in activities to implement a LGP under title XVII of the act during a period when DOE was affirmatively prohibited from implementing the LGP. These activities violated § 7278; the purpose statute, 31 U.S.C. § 1301(a); and the Antideficiency Act, 31 U.S.C. § 1341(a). DOE must report the violations of the Antideficiency Act to Congress and the President, and submit a copy of that report to the Comptroller General of the United States under 31 U.S.C. § 1351, as amended.

[2]Pub. L. No. 109-58, Title XVII (August 8, 2005).

administrative costs.[3] When it issued this solicitation, DOE had not yet received appropriated funds to carry out the LPG. After we had completed our audit work, Congress appropriated funds for the program.[4]

My testimony today discusses the (1) sources and use of funds for the LGP in fiscal years 2006 through October 2006, (2) extent to which the LGP could result in a financial risk to the taxpayer, and (3) steps DOE had taken at the time of our February report to implement the LGP.

To identify sources and use of funds for DOE's LGP, we interviewed DOE LGP and budget officials and reviewed and analyzed relevant DOE budget documentation as well as agency LGP guidance and planning documents. To examine the extent to which the LGP could result in financial risks to taxpayers, we analyzed DOE's plans and guidance for implementing the LGP and discussed these plans and the guidance with DOE and Office of Management and Budget (OMB) officials. To assess the steps DOE has taken to ensure the LGP will be well managed, we compared DOE's plan with OMB budget guidance, internal control and accounting standards, and practices used by other selected agencies that manage loan guarantee programs. We performed our work in accordance with generally accepted government auditing standards from October 2006 through February 2007.

In February 2007, we reported the following:

In fiscal year 2006, and continuing through October 2006, DOE used about $503,000 from three separate appropriation accounts to fund LGP activities. DOE used these funds for the salaries of three staff detailed to the LGP office and for contracts to support program development, including the development of a LGP Web site. As of the end of October,

[3]For the first round of loan guarantees, the guidelines stated that DOE anticipated that borrowers would pay the subsidy costs and that those borrowers would be assessed fees to cover some administrative costs.

[4]Revised Continuing Appropriations Resolution for Fiscal Year 2007, Pub. L. No. 110-5, title II, ch. 3, §§ 20315, 20320 (February 15, 2007).

DOE had discontinued most funding, and the staff initially detailed to the LGP had returned to their home units. However, DOE continued to pay for task order support services to respond to program inquiries, and these payments were in addition to the $503,000 already spent to initiate the program. At the same time, according to the deputy general counsel for energy policy, he and others in his office continued to work on the program by, for example, preparing a notice of proposed rulemaking and reviewing pre-applications for completeness. At the time of our review, DOE officials said they were awaiting appropriations before taking additional steps to implement the LGP.

Although LGP guidelines call for borrowers to be charged fees to cover all program costs, the program could result in substantial financial costs to the taxpayer if DOE underestimates total program costs and therefore does not charge fees sufficient to cover them. There are primarily two types of program costs: administrative and subsidy. Administrative costs include, for example, costs for evaluating applications; offering, negotiating and closing guarantees; and servicing and monitoring the guarantees. At the time of our review, DOE had not determined how it would estimate administrative costs, recover these costs from LGP borrowers, or fund shortfalls if the agency collected too little from borrowers.

The other type of program cost that poses financial risk to taxpayers is the LGP subsidy cost: the estimated net present value of the long-term cost to the federal government of guaranteeing the loans over the entire period that the loans are outstanding, excluding administrative costs. The subsidy cost takes into account (1) estimated federal payments to cover defaults, delinquencies, or other payments; and (2) estimated payments to the government, including origination and other fees, penalties, and recoveries on defaults. DOE will have to estimate the subsidy cost to determine the fees to charge borrowers, but it had no policies or procedures for doing so at the time of our review. Estimating the subsidy cost could be difficult because the program targets innovative energy technologies that have not been proven commercially viable and loan performance could depend the success of the unproven technologies and on future economic conditions, including energy prices, which are hard to predict accurately. Under the Federal Credit

Reform Act of 1990 (FCRA), shortfalls in subsidy costs are funded automatically by a permanent indefinite appropriation, not through the annual appropriations process.

DOE has taken some steps to implement the LGP, but these steps are not sufficient to help ensure the long-term success of the program. From OMB guidance, internal control and accounting standards, and the experience of other loan guarantee programs, we identified multiple steps that DOE needs to take to achieve reasonable assurance that the program will be well managed, including the following five key steps:

- *Issue regulations, which* go *through the public notice and comment process and thus are transparent; carry the force of law; and hold the agency implementing the program and program participants accountable to the terms specified in the regulations.* DOE had not issued regulations for implementing the LGP; instead it planned to rely on guidelines for awarding the first $2 billion in loan guarantees. DOE officials told us that they would enforce the guidelines through the terms of the loan guarantee contracts and thus saw no need to issue regulations before issuing the first $2 billion in loan guarantees. The officials also told us they would have regulations in place for later guarantees.[5]

- *Establish a credit review board to coordinate credit management and debt collection activities and ensure full consideration of credit management and debt collection issues.* DOE drafted a charter for a credit review board, but it had not yet provided the charter to the Secretary of Energy for approval at the time of our review.

- *Set policies and procedures for selecting and monitoring loans and lenders that protect the government's interests.* For example, these policies and procedures should establish mechanisms to screen and select applicants and lenders and to

[5]EPAct 05 requires DOE to issue (1) regulations defining conditions for determining when a borrower has defaulted on a loan and (2) requirements for the documentation borrowers must make available for audits. At the time of our review, DOE officials told us that the department planned to include these requirements in its final regulations. If DOE issues guarantees before the regulations are final, officials said they would issue procedural rules covering these requirements before they issued the guarantees.

monitor loan and lender performance. DOE had taken some steps towards establishing such policies and procedures through its guidelines, but it had not completed them.

- *Set policies and procedures for adequately estimating administrative and subsidy costs and accounting for loan guarantees to help ensure funds are properly accounted for and that fees cover program costs.* DOE had not developed policies or procedures for estimating administrative or subsidy costs. In addition, it had not developed policies or procedures for accounting for loan guarantees. Instead, DOE asked potential borrowers—who have an incentive to underestimate the costs—to provide preliminary estimates of subsidy costs so that it could gain experience in developing these estimates. DOE expected the necessary accounting policies and procedures would be in place before guarantees were issued.

- *Set program goals and objectives tied to outcome measures for determining program effectiveness.* Rather than establishing outcome measurements, DOE set broad objectives of furthering the policy goals generally set forth in EPAct 05 and promoting the President's Advanced Energy Initiative. This initiative supports clean energy technology research to reduce reliance on oil and address high natural gas and electricity prices.

- - - -

In conclusion, Mr. Chairman and Members of the Subcommittee, at the time of our review, DOE had not taken steps to ensure that it had in place the critical policies, procedures, and mechanisms necessary to ensure the program's success. In our report we recommended that the department take these steps: issuing regulations; establishing a credit review board, setting policies and procedures for selecting and monitoring loans and lenders, setting policies and procedures for estimating administrative and subsidy

costs and accounting for loan guarantees, and setting program goals and objectives tied to outcome measures for determining program effectiveness.

Since we completed our audit work, the Revised Continuing Appropriations Resolution for Fiscal Year 2007 directed DOE to implement most of our recommendations by issuing final regulations before awarding loan guarantees. These regulations are to include (1) programmatic, technical, and financial factors for selecting projects for loan guarantees; (2) policies and procedures for selecting and monitoring lenders and loan performance, and (3) any other policies or information necessary to implement the LGP. DOE was also instructed to complete these regulations within 6 months of the appropriations act.

- - - -

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions that you or Members of the Subcommittee may have.

Contacts and Staff Acknowledgements

Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony. For further information about our review of the loan guarantee program, please contact James Cosgrove at 202-512-3841 or cosgrovej@gao.gov. Key contributors to this statement were Marcia Carlsen, Assistant Director; Doreen S. Feldman, Assistant General Counsel; Marcia Brouns McWreath; Karla Springer, Assistant Director; Carol Herrnstadt Shulman; and Barbara R. Timmerman, Senior Attorney.

(360839)

Mr. BOUCHER. Thank you very much, Mr. Cosgrove. Ms. Jorgensen.

STATEMENT OF JULIE JORGENSEN, CO-PRESIDENT AND CEO, EXCELSIOR ENERGY, INC., Minnetonka, MN

Ms. JORGENSEN. Good afternoon, Chairman Boucher, Congressman Hastert and members of the subcommittee and thank you for the invitation to appear before you today. My name is Julie Jorgensen and I am the co-president and CEO of Excelsior Energy. We are an independent power company located in Minnesota and we are the developers of the Mesaba Energy Project, which is a 600 megawatt IGCC facility to be located in northeastern Minnesota. Excelsior is appreciative of the very strong local, State, and Federal support we have received.

In 2003, Minnesota passed groundbreaking enabling legislation for the Mesaba Project that created a market for its output and removed the barriers to entry for the IGCC technology that were within the State's control. Several State agencies also provided important early funding for the Mesaba Project. In 2004, the United States Department of Energy selected the project for funding under Round II of the Clean Coal Power Initiative.

The project will use ConocoPhillips' E-Gas Technology and has the ConocoPhillips Wabash River IGCC facility as its design starting point. The Mesaba Project will pave the way for the use of western coal in IGCC applications, a key impediment to widespread IGCC market adoption. We appreciate the leadership of Congress in authorizing the DOE loan guarantees for advanced technologies like IGCC. We particularly appreciate the specific authorization for a loan guarantee for our Mesaba Project in EPAct title XVII. EPAct also specifically provides that the Project's Clean Coal Power Initiative award can be used as budget authority for the loan guarantee.

The project is in the advanced development phase with all permits filed and the joint State and Federal EIS expected to be published in the next several months. Implementation of the loan guarantee program authorized by EPAct is now directly on the project's critical path schedule. With the loan guarantee, the project's costs of capital is reduced so that its cost of energy can compete with a conventional coal plant. This is achieved by reducing the interest rate on the debt and ensuring that adequate leverage levels are achieved. Both of these are critical to the goal.

In addition to bringing down the costs of capital for the first mover IGCC plants, the guarantee serves as an essential catalyst to the financing of these facilities. The Mesaba Energy Project is structured to meet all of the credit quality requirements for an investment grade financing. Nonetheless, the rating agencies indicate that an investment grade rating will not be possible for the first fleet of IGCC plants. Without the guarantee, there may simply not be debt capacity in the markets for these first mover projects, given their $2 billion size.

Every day the first movers are delayed spells delay for the market shift to carbon capture ready IGCC. We believe that the proposed guidance to limit the guarantee to less than 80 percent of total project costs and to require lenders to hold both guaranteed

and un-guaranteed debt creates problems and adds complexity that work against Congress's goal in enacting EPAct. Instead, we believe the best approach is to guarantee debt representing 80 percent of total project costs with the DOE obtaining the same type of input and advice that commercial underwriters receive from rating agencies and independent engineers in order to ensure that default risk is adequately addressed.

In conclusion, the guarantee program and the specific guarantee authorized by the Energy Policy Act for the Mesaba Project are essential to remove the final barriers to the timely implementation of the project and the handful of other projects that are close behind it, a successful culmination of the U.S. Government's 30-year program to develop and implement the IGCC technology. Again, I thank you for the opportunity to appear here today and look forward to your questions.

[The prepared statement of Ms. Jorgensen follows:]

TESTIMONY OF JULIE JORGENSEN

Good afternoon Chairman Boucher, Congressman Hastert, and members of the subcommittee, and thank you for the invitation to appear before you today. My name is Julie Jorgensen and I am the co-president and CEO of Excelsior Energy. Excelsior is an independent power company based in Minnesota. We are the developers of the Mesaba Energy Project, a 600MW Integrated Gasification Combined Cycle (IGCC) plant to be located in northeastern Minnesota.

While I am sure the subcommittee is familiar with IGGC technology, let me briefly describe the process. The plant we are developing will combine a gasification process with a combined cycle power plant to produce electricity from coal with less air pollution. In an IGCC plant, coal, petroleum coke, or blends of coal and petroleum coke are crushed and then slurried with water. The slurry is pumped into a pressurized vessel (the gasifier) along with sub-stoichiometric amounts of purified oxygen. In the gasifier, controlled reactions take place, thermally converting the feedstock materials into a gaseous fuel known as synthesis gas, or syngas. The syngas is cooled and cleaned of contaminants prior to combustion. Cleaning the fuel, rather than scrubbing stack emissions, is inherently more efficient because the fuel is at high pressure and temperature, and requires treatment of 1/130 of the volume of gases that require scrubbing in conventional coal plants. Carbon dioxide can also be captured efficiently at this pre-combustion stage. IGCC results in-highly efficient power generation with lower levels of air emissions through the operation of a combustion turbine and a steam turbine generator in tandem.

The plant will be fuel flexible and will run on fuel blends including 100 percent Powder River Basin sub-bituminous coal, Illinois 6 bituminous coal and coal/petcoke blends. I have attached a more extensive description of the Mesaba Energy Project for the record.

Excelsior is appreciative of the strong local, State and Federal support we have received. In 2003, Minnesota passed groundbreaking enabling legislation for the Mesaba Project that created a market for its output and removed the barriers to entry for the IGCC technology that were in the State's control. Several state agencies also provided important early funding for the Mesaba Project.

In 2004, the U.S. Department of Energy (DOE) selected the Project for funding as part of Round II of the Clean Coal Power Initiative. The Project will use ConocoPhillips' E-GasTM Technology, and has the ConocoPhillips Wabash River IGCC facility as its design starting point. The Project will have two gasification trains rather than the single train at Wabash, with a third gasification train for back-up and reliability, and incorporates over 1600 lessons learned in 12 years of operation at the Wabash plant and a DOE optimization study of that facility. The Mesaba Project will pave the way for the use of Western fuel in IGCC applications, a key impediment to widespread IGCC market adoption.

We appreciate the leadership of the Congress in authorizing DOE loan guarantees for advanced technologies like IGCC. In the Energy Policy Act of 2005 (EPAct), Congress recognized the strong public policy interest in advancing the commercial deployment of clean energy technologies, technologies that will enhance our energy security, reduce local air pollution, and provide tools to help reduce our emissions of greenhouse gases.

We are particularly appreciative of the specific authorization for a loan guarantee for the Mesaba Project in EPAct Title 17. EPAct also specifically provides that the Project's Clean Coal Power Initiative award can be used as budget authority for the loan guarantee.

The project is in the advanced development phase, with all permits filed and the joint state/Federal environmental impact statement expected to be published in the next few months. All transmission planning is underway. Because of the detailed technical work that has been completed by Excelsior, ConocoPhillips and Fluor on the Project, and its fuel flexible, multi-train design, the Electric Power Research Institute recently selected the Mesaba Energy Project as the pioneering sub-bituminous coal IGCC template in its CoalFleet program, which is developing IGCC reference designs for the utility industry. ConocoPhillips is working on the first stage of front end engineering design (FEED), a preparatory step to ordering long lead equipment items and completing the engineering design required before construction starts.

The Project's power purchase agreement (PPA) is pending before the Minnesota PUC. The tariff structure assumes the debt is guaranteed as authorized under EPAct. As a result, the tariff, or cost of energy, under the PPA is comparable to that of a new utility-owned super-critical pulverized coal plant. This price parity demonstrates that the loan guarantee program will achieve the stated goal of reducing the cost of energy from the first commercial fleet of IGCC facilities in order to ensure rapid market penetration of the technology. This is achieved by reducing the cost of capital by both reducing the interest rate on the debt and ensuring that adequate leverage levels are achieved. Both are critical to the goal.

In addition to bringing down the cost of capital for the first mover IGCC plants, the guarantee serves as an essential catalyst to the financing of these facilities. The Mesaba Energy Project is structured to meet all of the credit quality requirements for an investment grade financing. The Project output will be sold under a long-term offtake agreement, removing the largest default risk. The Project will have an engineering, procurement and construction turnkey contract with a world-class engineering firm that will guarantee plant performance, the other principal default risk. Nonetheless, the rating agencies indicate that an investment grade rating will not be possible for the first fleet of IGCC plants. Utility owned, rate-based plants will face similar constraints due to the $2 billion size of these facilities, and their material impact on utility balance sheets. Without the guarantee, there may simply not be debt capacity in the markets for these first mover projects. Every day the first movers are delayed spells delay for the market shift to carbon capture ready IGCC and further lock-in of conventional technologies that tie our hands in efforts to craft meaningful climate policy that does not adversely affect economic activity.

By late summer, we expect to move to the financing phase of the Project. Implementation of the loan guarantee authorized by the Energy Policy Act for the Project is now directly on the Project's critical path schedule. We have worked with major financial institutions, law firms and turnkey contractors to identify the optimal financing structure to implement the guarantee. We believe that the proposed guidance to limit the guarantee to less than 80 percent of total project costs, and to require lenders to hold both guaranteed and non-guaranteed debt, creates problems and adds complexity that work against Congress' goals in enacting EPAct. Instead, we believe the best approach is to guarantee debt representing 80 percent of total project costs, with the DOE obtaining the same type of input and advice that commercial underwriters receive from rating agencies and independent engineers in order to ensure that default risk is adequately addressed.

IGCC has moved front and center as a national energy security and climate change policy priority because of its flexibility to capture carbon dioxide emissions. The Project is participating in the DOE's Plains CO^2 Reduction Partnership which is spearheaded by the Energy and Environment Research Center at the University of North Dakota. The Project has filed a carbon capture and sequestration plan with the Minnesota Public Utilities Commission (PUC) that is the first of its kind anywhere in the United States. The plan contemplates 30 percent capture and sequestration of CO^2 when the Minnesota PUC determines that it is in the ratepayers' interests. Excelsior and Fluor have identified a means to achieve 30 percent capture using currently commercially available technology, by removing CO^2 that is present in the syngas. This capability provides an early source of a large CO^2 stream for one of the demonstrations of carbon capture and sequestration that are essential to the DOE's roadmap to low carbon impact coal utilization. The DOE programs to demonstrate large scale CO^2 sequestration could be accelerated by years by the Mesaba Project. The Project can then undertake 90 percent sequestration when the research and development path identified by the DOE for the technology is completed and ready for implementation.

The Mesaba Project therefore offers an opportunity to jump start the carbon capture and sequestration demonstrations that are critical to any meaningful climate change policy. The Clean Air Task Force has calculated that moving up the date of commercialization of IGCC with carbon capture and sequestration by six months, in China alone, will do more to stabilize atmospheric carbon dioxide concentrations than all the wind capacity installed in the world.

The guarantee program and the specific guarantee authorized by the Energy Policy Act for the Mesaba Energy Project are essential to remove the final barriers to the timely implementation of the Project and the handful of others that are close behind it, a successful culmination of the U.S. Government's 30-year program to develop and implement the IGCC technology.

Again, I thank you for the opportunity to appear before you today and look forward to answering any questions you may have.

Mr. BOUCHER. Thank you, Ms. Jorgensen. Mr. DeVos.

STATEMENT OF DENNY DEVOS, DIRECTOR OF CORPORATE FINANCE, POET, SIOUX FALLS, SD

Mr. DEVOS. Thank you. Mr. Chairman and distinguished members, thank you for the opportunity to visit with you today. My name is Denny DeVos. I am the director of corporate finance for POET. I would like to talk with you today about challenges and opportunities to utilize loan guarantees on financing cellulosic and other innovative renewable energy projects. POET, headquartered in Sioux Falls, SD, is the largest dry mill ethanol producer in the United States. POET, formerly Broin Companies, is an established leader in the bio-refining industry. The 20-year-old company has built 25 ethanol production facilities, marketing more than 1 billion gallons of ethanol annually. Additionally, four projects are under construction with several others in development.

The POET development model is unique. It started on the Broin family farm in Minnesota and has spurred growth of investment by thousands of farmers and individual main street investors. Just 10 years ago, most ethanol plants' capacity was 10 to 15 million gallons per year. Those plants are small by today's standards. Most dry mill ethanol facilities are now designed at 50 to 125 million gallons. Today, the design and construction costs exceed $2 per gallon, reaching upwards of $250 to $300 million. The cost to expand an existing facility to a cellulosic ethanol facility is approximately 100 percent greater than a traditional corn-to-ethanol facility.

Project LIBERTY, POET's commercial cellulose project for converting corn fiber and corn cobs to ethanol will expand the 50 million gallons per year traditional corn-to-ethanol plant in Emmetsburg, IA to 125 million gallons per year bio-refinery that will produce 25 million gallons of ethanol from corn stover and fiber from the corn kernel. POET was fortunate to be selected as a recipient of a Department of Energy grant for up to $80 million to support Project LIBERTY.

In addition to producing 27 percent more ethanol from an acre of corn, Project LIBERTY will reduce natural gas needs to operate the 125 million gallon per year plant by 83 percent and utilize 23 percent less water. To better position the Department of Energy's loan guarantee program, we believe a review of the challenges we see with the program POET has considered in the past as of value. The programs we have considered are the Department of Energy Loan Guarantee Program, the USDA Business and Industry Pro-

gram and the USDA Renewable Energy Systems and Energy Efficiency Improvement Programs.

Concerning the Department of Energy program, POET has submitted a pre-application to guarantee a $137 million loan. We see the following challenges to a successful final application and issuance of a loan guarantee. Statutory provision requires the Department of Energy to possess a first lien priority in the assets. It would be difficult, if not impossible, to obtain commitments for the un-guaranteed portion of the loan. Delays in processing our application may cause delays in construction of the project. The subsidy cost of the expected liability to the Federal Government in issuing the guarantee is an extreme burden and difficult to define for a startup and expanding company.

Concerning the USDA Business and Industry Loan Guarantee Program, the maximum loan amount of $25 million is too low. Loans greater than $5 require national office approval. The percent of loan guaranteed diminishes to 60 percent for loans greater than $10 million. And lastly, the Renewable Energy Systems Program, loans cannot exceed 50 percent of the total project cost and the maximum loan amount is $10 million. Personal and corporate guarantees are not possible due to the large number of investors and the need to treat investors equally regardless of percent of ownership.

As outlined previously, we have found challenges with the proposed Department of Energy as well past United States Department of Agriculture guarantee programs. An enhanced program that draws from aspects of all three programs, we believe, would be acceptable to the lending community and significantly increase investments in new technologies. The following are highlights of specific recommendations for proposed Federal loan guarantee program.

Eligibility. Projects that employ innovative technologies for renewable energy and energy efficiency. Benefit to lenders, provide lenders with another tool to expand their loan portfolio, improve the economic and environmental living climate in rural communities and allow the lenders to make loans above their loan limits. Maximum loan amount, as it would pertain to the industry that we are involved with would be limited to the maximum of $200 million in loan per borrower or a $160 million 80 percent of $200 million loan. It is important for all parties involved in financing or owning renewable energy projects to have something at risk, therefore POET does not support 100 percent loan guarantee.

Fees and costs. No subsidy costs should be assessed for potential future costs to the Federal Government for making payments due to lack of cash flow or upon liquidation. While assuring in the event of default, 80 percent of should be paid by the Department of Energy and 20 percent of the shortage should be covered by the holder of the un-guaranteed portion. Concerning servicing, knowledgeable and adequate staff resources are essential to providing prompt response to loan guarantee applications.

POET is honored to have testified to the Energy and Commerce Subcommittee on Energy and Air Quality. Thank you.

[The prepared statement of Mr. DeVos follows:]

STATEMENT OF DENNY DEVOS

Mr. Chairman and distinguished committee members, thank you for the opportunity to visit with you today. My name is Denny DeVos. I am Director of Corporate Finance for POET. I would like to talk with you today about challenges and opportunities to utilize loan guarantees when financing cellulosic and other innovative renewable energy projects.

POET, headquartered in Sioux Falls, South Dakota, is the largest dry mill ethanol producer in the United States. POET, formally Broin Companies, is an established leader in the bio-refining industry through project development, design and construction, research and development, plant management, ownership, and product marketing. The 20-year old company has built 25 ethanol production facilities and currently manages 19 plants in the United States while marketing more than one billion gallons of ethanol annually.

Since 2000, POET Design and Construction, formally Broin and Associates, has constructed 19 green field ethanol plants in 5 States and completed 5 major expansions of existing facilities. The value of our design build contracts since 2000 has exceeded $900 million. Additionally, four green field projects of similar size and scope are currently under construction with several others in development. Each project has been successfully designed, built and managed by POET. These projects have resulted in the addition of 875 millions of gallons per year (MGPY) of new fuel ethanol capacity.

The POET development model is unique. It started on the Broin family farm in Minnesota and has spurred the growth of investment by thousands of farmers and individual main street investors. POET's business model is to invest in, develop, design, construct and manage ethanol production facilities called Premier Partner Plants. However, the facilities are independent limited liability companies (LLC) owned primarily by individuals and local farmers that provide the corn feedstock. POET employs the facilities general manager and on-site technical engineer. All other employees are employed by the LLC. POET also has Board of Director representation at each plant.

By leveraging business size and position, POET has created the most successful and profitable ethanol facilities in the industry. POET has achieved breakthrough progress beyond ethanol processing, extracting extraordinary new value from each kernel of corn.

Just 10 years ago, most ethanol plants' capacity was 10–15 MGPY. POET's first plant was 1 MGPY and was one of the largest in operation at the time. Traditional ethanol plants were built in corn producing states which put incentives in place to stimulate investment by farmers and other local main street investors. Incentives stimulated development of an industry at a time when new interest was sparked by technology advancements. Public policy, which was driving these incentives, was sparked by the oil crisis in the 1970's and the clean air initiatives that followed. The cost per gallon to build and fund working capital for these plants was approximately $1.75 per gallon or a total of $20–25 million.

Those plants are small by today's standards. Most dry mill ethanol facilities are now designed at 50–125 MGPY capacity. The cost of an ethanol plant project just five years ago was $1.20 per gallon capacity. Today, the design and construction costs exceed $2 per gallon, reaching upwards of $250 million to $300 million or more to deliver a completed project. The significant increase is due to inflation of construction materials and labor. Most notably are stainless steel, concrete, other metals and qualified, skilled, manpower.

Due to additional storage, feedstock and waste handling, and pre-treatment equipment, the cost to expand an existing facility to a cellulosic ethanol facility is approximately 100 percent greater than a traditional corn-to-ethanol facility. Project LIBERTY, POET's commercial cellulose project for converting corn fiber and corn cobs to ethanol, will expand an existing 50 MGPY traditional corn-to-ethanol plant in Emmetsburg, IA to a 125 MGPY bio-refinery that will produce 25 million gallons of ethanol from corn stover and fiber from the corn kernel. POET was fortunate to be selected as the recipient of a DOE grant for up to $80 million to support Project LIBERTY. In addition to producing 27 percent more ethanol from an acre of corn, Project LIBERTY will reduce the natural gas needs to operate the 125 MGPY plant by 83 percent and utilize 23 percent less water. Expansion costs to an existing facility are projected in the range of $4.00 per gallon expanded capacity. A cellulose facility designed and constructed on a "green field" site would be substantially greater due to utility and product handling infrastructure.

The following table depicts the design and construction costs per gallon of plant capacity:

Corn-to-Ethanol Facility 1995 $1.75–$2
Corn-to- Ethanol Facility 2000 $1.15–$1.35
Corn-to-Ethanol Facility 2007 $2–$2.25
Cellulose-to-Ethanol Expansion Facility 2009 $4+

As technology develops and the cellulosic ethanol industry matures, the cost of construction is predicted to go down as long as the materials of construction do not inflate at a greater rate.

Historically, the majority of financing for ethanol plant construction has been accomplished using local individual investment and bank debt financing provided through the farm credit system and a few other Midwestern lending groups. All POET projects have a strong local farmer investment component, which promotes not only delivery of corn to the plant but ownership as well.

In terms of financing cellulose-to-ethanol production facilities, success will be achieved using new cellulosic processing technology. To achieve production at commercial volumes, we believe the use of properly designed loan guarantee programs will be absolutely necessary to attract investors, creditors and banks. The involvement of these groups is essential in supporting rapid development of these new, evolutionary cellulosic technologies. To better position the Department of Energy in its loan guarantee program we believe a review of the challenges we see with the programs POET has considered is of value.

POET has considered utilizing the three programs below:

• DOE Loan Guarantees for Projects that Employ Innovative Technology in Support of the Advanced Energy Initiative
• USDA Business and Industry
• USDA Renewable Energy Systems and Energy Efficiency

IMPROVEMENTS GUARANTEE PROGRAM

POET has not utilized any of the above loan guarantee programs due to the challenges detailed in the next few paragraphs.

While POET has submitted a pre-application to guarantee a $137 million loan under this program for construction of a cellulosic ethanol facility, we see the following challenges to a successful final application and issuance of a loan guarantee:

§1702(g)(2)(b) requires, with respect to any property acquired pursuant to a guarantee, "the secretary" shall be superior to the rights to any other person with respect to the property. This statutory provision requires DOE to possess a first lien priority in the assets of the project and other collateral security pledged. Therefore any holders of non-guaranteed debt have a subordinate claim to the DOE in the event of default and will not receive payment on their debt until the DOE is paid in full. Since the need for a guarantee is a result of a lender's perceived higher risk, when compared to other lending opportunities, it will be difficult, if not impossible to obtain commitments for the un-guaranteed portion of the loan, due to the un-guaranteed portions' subordinate position.

• The guaranteed portion of the loan must not be separated from, or stripped from the un-guaranteed portion of the loan, or sold in secondary debt markets. To meet this requirement, the lender that originated the guarantee is required to hold the un-guaranteed loan. It is highly probable that a lenders risk appetite, at least one who is willing to do a guaranteed loan, is much different than a lender who focuses on the subordinated debt market. Since the originating lender is required to hold both types of debt, it will be difficult, if not impossible to find a lender to hold both portions of the loan.

• Delays in processing our application may cause delays in start-up and delays in the commencement in construction of the project.

• The guaranteed loan cannot be subordinate to other debt. In some cases the new loan is for expansion of an existing facility with prior debt that is still outstanding.

• Payment of fees to cover administrative cost for DOE issuing the guarantee, servicing and monitoring costs of the DOE, and normal fees charged by the originating lender, are a significant challenge for a start-up or expanding company.

• The subsidy cost of the expected liability to the Federal Government from issuing the guarantee, which is the estimated net present value at the time the guaranteed loan is dispersed, is an extreme burden to a start-up or expanding company. The liability would be a result of default payments made to the originating lender on the loan, due to lack of payment by the company from cash-flow or liquidation of the collateral. The subsidy cost is wholly distinct and separate from fees for issuing and servicing the loan guarantee. The subsidy fee can either be an appropriation by congress or payment by the borrower.

At present, it is our understanding that the borrower is expected to make this payment and no appropriation has been made. Since we do not intend to bring a project that we do not expect to be successful, we do not feel a subsidy payment should be required. Should the DOE, through their analysis, require an upfront cash subsidy payment, this undo burden may keep the project from moving forward.

• The Maximum Loan amount of $25 million is too low. Most renewable energy projects are now of a capacity in excess of 50 million gallons, with total project costs in excess of $100 million (current facilities cost $2–$2.25 per gallon to construct).

• Loans greater than $5 million require national office approval. (Due to the seasonal nature of construction in cold climates, if the time to receive a commitment for guarantee is lengthy, the project could be delayed for a full year.)

• The percent of the loan guarantee diminishes to 60 percent for loans greater than $10 million. Lending institutions see almost no value in a guarantee at the 60 percent level.

• When adding the potential one-time 2 percent fee and the annual renewal fee for a guarantee to a lender's typical cost, the total financing costs are excessive and very challenging for an expanding or start-up company.

• Since in most circumstances ownership is by a large group of rural investors, personal and corporate guarantees are not possible.

• If the guarantee is contingent upon successful start up, performance guarantees and no substantial deterioration in financial position, limited or no-value will be given to the guarantee by a lender considering financing for the project. URLP

• Loans cannot exceed 50 percent of total project costs.

• The maximum loan amount is $10 million. This is too low. (Current ethanol facilities cost $2 to $2.25 per gallon to construct with most project scopes being in excess of 50 million gallons.)

• Loans greater than $5 million can only be guaranteed for a maximum of 70 percent. (This results in a maximum of 35 percent of the total project cost being guaranteed. Fifty percent of the total project costs times 70 percent.) This provides no value to the lender.

• Loans greater than $5 million require national office approval. (Due to the seasonal nature of building in cold climates, if the time to receive a commitment for loan guarantee is lengthy, the project could be delayed for a full year.)

• The one-time 1 percent guarantee fee and annual renewal fee along with typical lender fees result in total financing costs that are very challenging for a start-up or expanding company.

• Personal and corporate guarantees are not possible due to the large number of investors and the need to treat investors equally regardless of percent ownership.

The $2 billion DOE loan guarantee program targets broad renewable energy initiatives. Federal loan guarantee programs will be essential to commercialize cellulosic ethanol plants until technology is proven and the industry is matured to a point where conventional lending is feasible.

As outlined above, we have found challenges with the proposed DOE as well as the past USDA programs: USDA Business and Industry Loan Guarantee Program, USDA Renewable Energy Systems and Energy Efficiency Improvements Guarantee program, and DOE Loan Guarantees for Projects that Employ Innovative Technology in Support of the Advance Energy Initiative. An enhanced program that draws from aspects of all three programs, we believe, would be acceptable to the lending community and significantly increase investments in new technologies that will enable renewable fuels to replace our dependence on imports of fossil fuels.

The following are specific recommendations for a proposed Federal loan guarantee program supporting the Advanced Energy Initiative:

ELIGIBLE AREAS

• Projects that employ innovative technologies for renewable energy and energy efficiency.

• Loans can be guaranteed in cities with a population of up to 50,000.

• Priority given to applications for working in rural communities of 25,000 or less. Eligible borrowers

• Any legal entities, including individuals, public and private organizations and federally recognized Indian Tribal groups may borrow.

• There is no size restriction on the business. Benefits to the business:

• Assist in bringing new technology to commercial scale much sooner.

• Assist in deploying new technology on a broad scale faster.

• Higher loan amounts, stronger loan application, less equity injection, lower interest rates, and longer repayment terms assist businesses that may not qualify for conventional lending or financing.

• Assist business in stability, growth, expansion, and rural development.

ELIGIBLE LENDERS

Most lenders are eligible, including national and state chartered banks, farm credit system banks, and savings and loan associations. Other lenders, such as insurance companies and mortgage companies may be eligible if approved by USDA.Benefits to Lenders

• Provide lenders with another tool to expand their loan portfolio.
• Improve the economic and environmental living climate in rural communities.
• Guaranteed and or/un-guaranteed portion can be sold to enhance liquidity and increase profitability while limiting financial exposure.
• Allows lender to make loans above its loan limits.

ELIGIBLE PROJECT COSTS

• Cost of acquisition, lease or rental of real property, including engineering fees, surveys, title insurance, recording fees, and legal fees incurred in connection with land acquisition, lease or rental, site improvements, site restoration, access roads and fencing.
• Engineering, architectural, legal, and bond fees, and insurance paid in connection with construction of the facility and materials, labor, services, travel and transportation for facility construction start-up and test.
• Equipment purchase and start-up testing.
• Cost to provide equipment, facilities, and services related to safety and environmental protection.
• Financial and legal services and costs, including other professional services and fees necessary to obtain required licenses and permits and to prepare environmental report and data.
• Interest cost and other normal charges affixed by lender.
• Necessary and appropriate insurance and bonds of all types.
• Costs of start-up and commissioning.
• Cost of obtaining licenses to intellectual property necessary to design, construct and operate the project.
• Machinery, equipment and storage facilities to support the collection and storing of raw materials for the production of cellulosic ethanol.
• Other necessary and reasonable cost approved by the Secretary.

MAXIMUM LOAN AMOUNT

Loans would be limited to a maximum of $200 million per borrower. Loans greater than $10 million require national office concurrence.Loan Guarantee Limits

$160 million (80 percent of $200 million) It is important for all parties involved in financing or owning renewable energy projects to have something at risk, therefore, POET does not support a 100 percent loan guarantee.

LOAN TO APPRAISE MARKET VALUE RATIOS

• 80 percent Real Estate
• 75 percent receivables
• 75 percent inventory
• 80 percent machinery and equipment

INTEREST RATE

Interest rates for loans may be fixed or variable. The rate is negotiated between the lender and borrower and will not be more than those rates customarily charged to other borrowers in similar circumstances. The variable rate must be tied to a nationally published rate. Variable rates cannot be adjusted any more than every 30 days.

BORROWER EQUITY REQUIREMENTS

A minimum of 15 percent tangible balance sheet equity is required for exiting business. A minimum of 25 percent tangible balance sheet equity is required for new businesses. Personal and corporate guarantees are not required. Tangible balance sheet equity will be determined accordance with generally accepted accounting principles (GAAP).

MAXIMUM REPAYMENT TERMS

- Working capital—7 years
- Machinery and equipment—10 years or useful life
- Real estate—20 years
- Combination real estate, machinery and equipment—15 yearsFees and Costs

No subsidy costs should be assessed for potential future costs to the Federal Government for making payments due to lack of cash-flow or if upon liquidation, the proceeds received do not fully repay the loan. A one-time guarantee fee not to exceed one half of 1 percent of the guarantee principle amount along with an annual renewal fee not to exceed one tenth of 1 percent. It is our belief that a subsidy payment by the borrower defeats the purpose of a guaranteed loan program. Other typical lender costs may also be incurred.

APPRAISALS AND APPRAISAL REPORT

Appraisals and appraisal report prepared by an independent, qualified fee appraiser will be required on property that will serve as collateral. Appraisals will be made in accordance with the accepted format and standards of the industry.

COLLATERAL

All collateral pertaining to the specific project supported by the guarantee shall secure the entire loan. Repayment of the loan must be reasonably assured. Personal and corporate guarantees are not required.

LOSS SHARING

In the event of default if the liquidation of the collateral or cash-flow payments do not repay the guaranteed and un-guaranteed portions of the loan, shortages would be shared on a pro-ratio basis, 80 percent of the shortage being paid by the guarantor and 20 percent of the shortage being covered by the holder of the unguaranteed portion of the debt.

LOAN COVENANTS/CONDITIONS

Normal and customary commercial lending covenants that are reasonably acceptable to financial institutions. Contingencies of issuing the guarantee based on successful completion and start-up of the project without financial deterioration are not acceptable. A clause of this type will eliminate the value to a lender since the lender must commit the loan prior to commencing construction or expansion. The lenders greatest risk is during construction and start-up.

REPORT

Once the project has been constructed, the lender must provide the agency annual financial reports from the borrower.

Servicing Liquidation. Knowledgeable and adequate staff resources are essential to providing prompt response to loan guarantee applications and ongoing loan servicing requests.

Annual financial statements should continue to be required. Lender services and liquidates with appropriate agency concurrence.

POET is honored to testify to the Energy & Commerce Subcommittee on Energy & Air Quality. On behalf of the renewable fuels industry, we applaud the Department of Energy's efforts in supporting the Advanced Energy Initiative through loan guarantees. Without the enhancements to the loan guarantee program as previously outlined, the industry would have difficult, and in some cases impassable, financial barriers to conduct research and development, validate, and commercialize renewable fuels technology, particularly cellulosic ethanol.

Thank you for the opportunity to submit recommendations. POET looks forward to working in partnership with the Congress and the administration to reach the national goal of 35 billion gallons of renewable fuel produced per year by the year 2017.

Mr. BOUCHER. Thank you very much, Mr. DeVos. Mr. Crane, we will be happy to hear from you.

STATEMENT OF CHRISTOPHER CRANE, PRESIDENT AND CHIEF NUCLEAR OFFICER, EXELON GENERATION

Mr. CRANE. Mr. Chairman, Ranking Member Hastert and members of the subcommittee, thank you for the opportunity to be here today to talk about one of the more important elements of the Energy Policy Act of 2005, the energy loan guarantee program. It is truly absolutely imperative that this program goes forward with the right construct to support the development, future development of new nuclear.

My name is Christopher Crane. I am the president and chief nuclear officer of Exelon Nuclear. We have 17 operating nuclear plants, which is approximately 20 percent of the U.S. industry. Exelon is the largest nuclear operator in the United States. Exelon is currently actively pursuing new nuclear development. We are developing an application for a construction and operating license for a new nuclear plant. Several sites are being explored for that facility today. In addition, recently we received an early site permit from the Nuclear Regulatory Commission which certifies our Clinton, IL site where we currently operate one reactor.

I am appearing here today on behalf of Exelon and also on behalf of the Nuclear Energy Institute. The Nuclear Energy Institute is the Washington-based policy organization. There i am the chairman of NEI's New Plant Oversight Committee, which consists of the chief executives or the chief nuclear officers of the companies that are planning developing applications for construction and operating license for new facilities.

As I said, the loan guarantees are crucial. The loan guarantees address the most significant financing challenges facing new nuclear plant construction, the cost of base load projects relative to size, market value and financing capability of companies that will build them. New nuclear projects are from $4 billion to $5 billion undertakings and that is at the least. Although $4 billion to $5 billion projects are not unique to the energy business, such projects are typically built by larger companies with market bases 10 to 15 times higher than the largest electric companies.

The combined market value of the 16 companies currently developing license applications for new nuclear plants represents approximately one-half the value of ExxonMobil. Even Exelon, my company, with a market value of approximately of $50 billion, the largest U.S. electric power company, is not large enough to finance a single nuclear plant without Federal loan guarantees.

The loan guarantees are equally important for unregulated companies operating in States that have restructured the electrical power industry and to regulated companies subject to cost of service regulation. In addition, capital markets that will provide debt financing for new nuclear projects regard loan guarantees as essential to protect investors against potential licensing, regulatory or political risks associated with new plant construction.

The loan guarantees must cover 100 percent of the project debt. The Energy Policy Act authorizes the Secretary of Energy to guarantee up to 80 percent of the total loan, total project cost and in its August 2006 guideline, the energy loan guarantee program, the Department of Energy determined that the guarantee would cover only 80 percent of the project debt, not 80 percent of the project

cost, which I think has been well-covered here today. This approach would reduce the value of the guarantee substantially and runs counter to the Federal loan guarantee program.

Currently, the fiscal year 2007 budget includes $238 million in new loan guarantees, $177 billion of those are provided at 100 percent loan coverage. The 2008 fiscal year budget includes $289 billion in loan guarantee commitments and $217 billion provide 100 percent coverage. The program must have rigorous project evaluation criteria. The process of evaluating the projects have to be rigorous, disciplined. It must employ transparency for the project risk evaluation criteria, similar to commercial banks.

Flexibility is essential. The terms of the project, the structure between the duration of the project. Some projects may need to be guaranteed for the 30-year term authorized by the Energy Policy Act and others may have shorter durations. The loan volume limitations must recognize the higher cost of major energy projects. The President's budget proposes $9 billion loan volume limitation with only $4 billion of the $9 billion allotted to large power projects like nuclear plants.

Given the costs of new energy infrastructure, including the costs of the generation facilities, a robust, viable loan guarantee program will require significantly larger amounts of volumes for future fiscal budgets.

In conclusion, the U.S. electric industry faces a major challenge financing, building the generation assets required, the transmission and distribution infrastructure necessary to support the U.S. economy's growth and maintain reliability. And that is why we feel it is imperative that these issues are addressed to guarantee the growth.

[The prepared statement of Mr. Crane follows:]

STATEMENT OF CHRISTOPHER CRANE

Chairman Boucher, Ranking Member Hastert, members of the subcommittee, thank you for the opportunity to appear today to provide the nuclear energy industry's views on one of the most important elements of the Energy Policy Act of 2005. The energy loan guarantee program is an absolute imperative to support the financing and construction of new nuclear power plants in the United States. I believe I speak for the entire electric power industry in thanking this committee of its consistent and even-handed leadership in matters of energy policy and environmental policy, and I appreciate your interest in ensuring effective implementation of this loan guarantee program.

My name is Christopher Crane. I am president and chief nuclear officer of Exelon Nuclear. With 17 nuclear power plants, approximately 20 percent of the U.S. nuclear fleet, Exelon is the largest nuclear operator in the United States. Exelon is also actively pursuing new nuclear development: We are developing an application for a construction/operating license for a new nuclear plant, and are exploring several potential sites for that facility. In addition, we recently received an early site permit from the Nuclear Regulatory Commission, which certifies that our site in Clinton, Illinois, where we operate one nuclear reactor, meets all necessary criteria for construction of a new nuclear unit.

I am appearing today on behalf of Exelon and on behalf of the Nuclear Energy Institute, the nuclear industry's Washington-based policy organization. I am Chairman of NEI's New Plant Oversight Committee, which consists of the chief executives or chief nuclear operating officers of the companies that are developing applications for construction/operating licenses (COLs) for new nuclear power plants. NEI's New Plant Oversight Committee is charged with establishing industrywide consensus on regulatory, financial and other significant policy issues associated with new nuclear plant development. The New Plant Oversight Committee has various Task Forces focusing on specific issues related to new nuclear plant development,

including a Finance Task Force, which has been deeply involved in implementation of the energy loan guarantee program.

Nuclear energy is a strategic national asset, and new nuclear power plants are essential if the United States hopes to meet its energy and environmental goals. Consider the following facts:

Nuclear power is essential in any program to reduce greenhouse gas emissions. The average nuclear plant avoids seven million metric tons of carbon dioxide (CO^2) each year. The 682 million metric tons prevented by America's 103 nuclear power plants in 2005 is equal to the annual emissions from 96 percent of the country's passenger cars. In addition, nuclear power plants also avoid emissions of criteria pollutants like sulfur dioxide, nitrogen oxides and mercury, thereby reducing the clean air compliance burden and costs that would otherwise fall on power plants and industries burning fossil fuels. Nuclear power plants can reduce pressure on natural gas supply, thereby helping to mitigate the volatility in natural gas prices. Compared to an equivalent-size gas-fired power plant, a 1,000-megawatt nuclear plant saves approximately 54 billion cubic feet of natural gas per year, enough natural gas to serve over 600,000 residential customers.

Construction and operation of a new nuclear power plant will provide substantial employment—1,400–1,800 jobs during construction on average (with peak employment as high as 2,400 jobs at certain times), and 400–700 permanent jobs when the plant is operating. These permanent jobs pay 36 percent more than average salaries in the local area. The 400–700 permanent jobs at the nuclear plant create an equivalent number of additional jobs in the local area to provide the goods and services necessary to support the nuclear plant workforce.

My Statement for the Record covers four major areas:

- The purpose and value of loan guarantees in supporting private sector investment, and the unique features of the energy loan guarantees provided by title XVII of the Energy Policy Act;
- The critical importance of loan guarantees in supporting the financing of new nuclear generating capacity in the United States;
- The nuclear energy industry's perspective on the minimum conditions necessary for a successful energy loan guarantee program, and
- The nuclear industry's concerns about implementation of this program by the Executive Branch in the 20 months since enactment of the Energy Policy Act of 2005.

THE PURPOSE AND VALUE OF LOAN GUARANTEES

Federal loan guarantees are widely used by the Federal Government to support financing of projects that (1) have substantial public value, and (2) would not otherwise be able to secure financing on reasonable terms. Federal loan guarantees are used for ongoing programs—to support rural electrification, development of transportation infrastructure, shipbuilding, low-income housing and, through agencies like the Export-Import Bank and the Overseas Private Investment Corporation, to support U.S. companies developing projects overseas. Federal loan guarantees are also periodically used in specific emergency situations—as they were after the September 11, 2001, terrorist attacks to support the U.S. airline industry. Title XVII of the 2005 Energy Policy Act authorizes the Secretary to provide guarantees for up to 80 percent of project cost for projects that (i) avoid, reduce or sequester air pollutants or greenhouse gases, and (ii) employ new or significantly improved technologies.

At the end of the 2006 fiscal year, $1.12 trillion in Federal loan guarantees were outstanding, and the President's fiscal year 2008 budget projects $290 billion in new loan guarantee commitments. The President's fiscal year 2008 budget proposes $9 billion for the DOE title XVII Loan Guarantee Program, which represents 3 percent of new government-wide loan guarantee commitments projected in fiscal year 2008, and less than 1 percent of the current portfolio of outstanding Federal loan guarantees.

Under the Federal Credit Reform Act (FCRA) of 1990, loan guarantees are scored in the Federal budget on a risk-adjusted basis, based on the budget subsidy cost methodology specified in FCRA. The actual amount of new Budget Authority to cover new loan guarantee commitments in fiscal year 2008 is $2.7 billion (or less than 1 percent of the face value of the new loan guarantee commitments). The budget subsidy cost represents the net present value of the risk-adjusted cost to the government of the loan guarantee at the time it is issued—e.g., the net present value of the loan payoff in the event of a default, less any fees paid by the project to the government and any recoveries (from pledged collateral) made by the government

in the event of a default. In this calculation, both the loan payoff amount and any recoveries are estimated on a risk-adjusted basis—i.e., the face amounts are adjusted by the probability of a default.

The title XVII loan guarantee program is unique among Federal loan guarantee programs in that project developers are expected to pay the budget subsidy cost of the loan guarantee. This "self-pay" or "user-financing" feature offsets the risk-adjusted cost to the government of providing the guarantee. The self-pay amount is retained by the government regardless of whether the project defaults or not. If there is no default, the self-pay amount represents a financial return to the Treasury for agreeing to assume the risk during the period that the guarantee was in effect. Given a rational approach to implementation, in which projects are selected based on a high likelihood of commercial success with the loan guarantees, there will be minimal risk of default and therefore minimal risk to the taxpayer.

The title XVII loan guarantee program is a financing tool, which should be modeled on the successful financing practices already employed by the Federal Government (through such agencies as the Export-Import Bank and the Overseas Private Investment Corp.). By allowing projects to overcome the barriers that preclude private financing, the loan guarantee program is designed to stimulate investment in high-capital-cost projects that are in the nation's best interest because they improve U.S. energy security, meet growing electricity demand, reduce emissions, accelerate the commercialization of advanced technologies, and ensure the reliable operation of the electricity system.

In addition, loan guarantees provide substantial consumer benefits. The cost of electricity to all consumers—residential, commercial and industrial—will increase significantly in the years ahead, due to sustained upward pressure on natural gas prices, and heavy capital investment in new transmission facilities, environmental control technologies, and new generating capacity. A sustained period of upward pressure on electricity prices has negative implications for U.S. economic growth and the competitiveness of American industry in a global marketplace. An effective loan guarantee program can reduce electricity costs significantly, providing substantial benefits to electricity consumers. For example, according to financial modeling performed by the Nuclear Energy Institute:

(1)A new nuclear plant with an overnight capital cost of just over $2,800 per kilowatt will produce electricity for approximately $84.00 per megawatt-hour in its first year of operation, if the plant is financed with equal amounts of debt and equity (assuming debt financing was available for such a project, which is unlikely).

(2) The same plant, with a Federal loan guarantee for 80 percent of project cost, will produce electricity in its first year for approximately $59 per megawatt-hour, because of the higher leverage and the fact that debt is less costly than equity.

(3) The plant financed with a loan guarantee thus delivers a consumer benefit of $25 per megawatt-hour, or approximately $275 million per year for the average new nuclear plant.

THE CRITICAL IMPORTANCE OF LOAN GUARANTEES IN SUPPORTING THE FINANCING OF NEW NUCLEAR GENERATING CAPACITY

It will be a formidable challenge to finance the advanced electric generating technologies needed to (1) meet growing U.S. demand for baseload electricity over the next 15 to 20 years, (2) increase energy independence, and (3) meet more stringent environmental standards.

The new nuclear plants now in the early stages of development are capital-intensive projects and will require a level of capital investment that will strain the financing capability of the U.S. electric sector, particularly since that investment in new generating capacity coincides with a period of heavy capital investment by the electric sector in transmission, distribution and environmental control technologies. Consensus estimates suggest that the industry, over the next 15 years, must invest between $750 billion and $1 trillion in new generating capacity, new transmission and distribution infrastructure and environmental controls. This new capital spending represents a major challenge to the electric power industry.

All of these investments are necessary to ensure the continued safe and reliable operation of the United States electricity system.

Addressing this challenge successfully will require innovative approaches to financing, combining all the financing capabilities and tools available to the private sector, the Federal Government and State governments.

The loan guarantee program authorized by title XVII of the Energy Policy Act of 2005 is one of those tools and is essential to support the financing of new nuclear plants. The loan guarantee program will allow companies to employ project financing on a non-recourse basis. The ability to use non-recourse project finance struc-

tures offsets the most significant financing challenge facing new baseload power plant construction—the cost of baseload projects relative to the size, market value and financing capability of companies that will build them. New nuclear projects are $4–5 billion undertakings at least. Although $4–5 billion projects are not unique in the energy business, such projects are typically built by much larger companies with market values 10–15 times higher than the largest electric companies. All the companies that have announced plans for new nuclear power plants have a combined market value only slightly more than one-half the market value of ExxonMobil. Even Exelon, my company, with a market value of approximately $40 billion, is not large enough to finance a single nuclear plant without the Federal loan guarantees.

Project financing, supported by loan guarantees, also allows a more efficient, leveraged capital structure to reduce project cost by lowering the weighted average cost of capital, and thus provides a substantial consumer benefit in the form of lower electricity prices. Loan guarantees also mitigate the impact on the balance sheet of these large capital projects which would otherwise place stress on credit quality and bond ratings.

Loan guarantees are equally important to unregulated companies, operating in states that have restructured their electric power industries, and to regulated companies subject to cost-of-service regulation. Unregulated companies will be hard-pressed to build nuclear power plants and other large capital-intensive baseload projects except on a project finance basis with the debt financing secured by the Federal Government. Unregulated companies do not have the capacity to finance these projects on balance sheet without access to project finance structures. Some regulated companies, especially those pursuing multiple generating and transmission projects at the same time, may also be limited in their ability to finance projects without project finance capability because of substantial pressure on credit quality and debt ratings.

In addition, the capital markets that will provide the debt financing for new nuclear projects regard loan guarantees as essential to protect investors against potential licensing, regulatory and political risks associated with new nuclear plant construction.

The 2005 Energy Policy Act included several incentives designed to stimulate investment in new nuclear power plants. These incentives were provided as a package to address different risks associated with new nuclear power plants. Our analysis of new nuclear plant financing, and our discussions with the banking community since the passage of the 2005 energy legislation, suggests that the loan guarantee program is clearly the most important of all the incentives in the Energy Policy Act.

The Act provided a production tax credit for nuclear plants that file applications for construction/operating licenses before the end of 2008 and start construction by the beginning of 2014. These credits will improve the financial attractiveness of a nuclear project when it is in commercial operation, and help offset the economic risk associated with the first projects. Our major challenge is construction financing, however, and the construction period is when a new nuclear project most needs investment support. The production tax credit does not help address the construction risks and financing challenge during construction.

The Energy Policy Act also provides a form of insurance—called standby support—to protect project developers against delays caused by licensing or litigation over which they have no control. But this insurance protection is severely limited. The insurance covers debt service up to certain limits for a limited period of time, but would not cover other substantial costs borne by a nuclear plant subject to a delay in commercial operation. Although standby support addresses a limited portion of the risk associated with potential delays experienced by the first six plants, I do not believe the standby support will be a critical factor in any board of directors' decision to authorize construction of a nuclear power plant.

The loan guarantee program is, therefore, the single most important instrument provided by the Energy Policy act to support financing of new nuclear generating capacity. Yet we are almost two years past passage of the Energy Policy Act, and we still do not have final regulations to implement the loan guarantee program, the Department of Energy does not have staff to evaluate projects, neither the Congress or the White House have provided sufficient loan authorization to support even one new nuclear plant, and we have no idea what a loan guarantee will cost.

NUCLEAR ENERGY INDUSTRY PERSPECTIVE ON THE MINIMUM CONDITIONS NECESSARY FOR A SUCCESSFUL ENERGY LOAN GUARANTEE PROGRAM

The loan guarantee must cover 100 percent of project debt. The Energy Policy Act authorizes the Secretary of Energy to guarantee up to 80 percent of total project cost. In its August 2006 Guidelines for the energy loan guarantee program, the De-

partment of Energy determined that the guarantee would cover only 80 percent of the project debt, not 80 percent of the project cost. This approach would reduce the guarantee to "80 percent of 80 percent"—e.g., only 64 percent of the total project cost would be covered by the guarantee. The investment banks that will provide the debt financing for new nuclear projects have indicated that it will not be possible to fund the remaining "20 percent of 80 percent" in the un-guaranteed debt markets on commercially reasonable terms.

In addition, there is no basis in law or administrative practice for restricting the guarantee to 80 percent of project debt. The policy limiting coverage under Federal loan guarantees to 80 percent of the loan amount is an administrative guideline in OMB Circular No. A–129. It is not a statutory requirement, and the Federal Credit Reform Act of 1990 does not address the issue of percentage loan coverage for Federal loan guarantees.

OMB Circular A–129)part II, section 3a) states that "[p]rivate lenders who extend credit that is guaranteed by the Government should bear at least 20 percent of the loss from a default" (emphasis added). Thus, the policy is not mandatory but suggestive in nature. Circular A–129 also provides flexibility in the application of the guideline on 80 percent loan coverage. It states: "The policies and standards of this Circular do not apply when they are statutorily prohibited or are inconsistent with statutory requirements" (emphasis added). The guideline for 80 percent coverage of debt is inconsistent with the requirement in EPAct section 1702 (c), which authorizes that "a guarantee by the Secretary shall not exceed an amount equal to 80 percent of the project cost." The application of Circular No. A–129 would prevent the Secretary from ever reaching the statutory cap. Administrative practice in other Federal loan guarantee programs also allows for flexibility in setting loan guarantee limits up to statutory caps.

The fiscal year 2007 budget included $238 billion in new loan guarantee commitments; $177.2 billion of that provided 100 percent loan coverage. The fiscal year 2008 budget proposal included $289 billion in new loan guarantee commitments; $217 billion of that provided 100 percent loan coverage. Clearly, 100 percent coverage of the debt portion of the financing is the rule in Federal loan guarantee programs, and the approach taken by DOE in its August 2006 Guidelines is an egregious exception to that rule.

The Program Must Have Rigorous Project Evaluation Criteria. The process of evaluating projects and selecting those that qualify for loan guarantees must be rigorous and disciplined, employing transparent project finance risk evaluation criteria of the kind used by commercial banks, rating agencies, and other government agencies (like the Export-Import Bank) that operate successful loan guarantee programs.

We believe the Department of Energy should focus the loan guarantee program design on credit analysis and underwriting of the kind any bank would employ to lend money. We believe the pending rulemaking should establish a set of risk-based evaluation criteria to ensure that credit risks are rigorously analyzed, quantified, scored and appropriately priced or mitigated. The Department then should have the flexibility, as provided in the statute, to structure loan guarantees that will enhance the statutory objective of commercializing innovative technologies, with projects that are financially sound and have the financial capacity to repay the underlying loan obligation guaranteed by the U.S. government. This process would be supplemented by third-party consultants and reports that are standard for project financings, such as independent engineers, fuel consultants, insurance advisors and market studies.

This approach, using rigorous credit analysis and risk assessment, will minimize taxpayer risk.

Flexibility is essential. The implementing regulations should provide a high degree of flexibility—e.g., on the term of the loan of the guarantee, and the percentage of debt in the project. This will allow project sponsors to structure projects as best suits their needs. Different technologies and different companies will wish to employ different levels of debt in their project capital structure. Different technologies and companies may choose different durations for the loan guarantee—in some cases, projects may need a guarantee for the full 30-year term authorized by the Energy Policy Act, while others will need a shorter duration. Such differences in project capital structure, percentage of debt being guaranteed and duration of the guarantee should be reflected in the credit subsidy costs paid by the project sponsor.

Subsidy cost and calculation. The implementing regulations should include a transparent methodology to calculate the credit subsidy cost that will be paid by the project as a loan guarantee fee, and that subsidy cost should be reasonable and commercially viable, in line with those of other Federal loan guarantee programs. Project sponsors should be allowed to include the credit subsidy cost as part of the total project cost, and finance it over the term of the guarantee. This is standard

practice in other Federal loan guarantee programs, including the Export-Import Bank.

The Loan Volume Limitation Must Recognize the High Cost of Major Energy Projects. The President's fiscal year 2008 budget proposes a $9-billion loan volume limitation, with only $4 billion of the $9 billion allocated to large power projects like nuclear power plants. Given the cost of new energy infrastructure projects (including new nuclear plants, coal gasification plants and coal-to-liquids projects), a robust and viable loan guarantee program will require significantly larger annual loan volumes in future fiscal years.

NUCLEAR INDUSTRY CONCERNS ABOUT IMPLEMENTATION OF THE LOAN GUARANTEE PROGRAM TO DATE

On August 8, 2006, the Department of Energy published initial guidelines (DOE Guidelines) under which it will implement the loan guarantee program, accompanied by an initial solicitation for projects. Nuclear projects were not included in the initial solicitation. The Department indicated that nuclear projects will be covered by formal regulations to be developed over the next year.

In terms of supporting financing of new nuclear and advanced coal-based baseload power plants, the DOE Guidelines significantly erode the value of the loan guarantee program authorized by title XVII. The procedures outlined in the guidelines are so restrictive that they would not support construction and financing of new baseload power plants. If the regulations now being developed mirror the guidelines published in August 2006, the loan guarantee program would not support new advanced nuclear power plants, and will thus fail to fulfill part of the statutory intent to spur construction of new, cleaner baseload capacity.

The industry's major sources of concern with the August 2006 DOE Guidelines are discussed below.

EPAct title XVII authorizes loan guarantees up to 80 percent of total project cost. The DOE Guidelines limit coverage to 80 percent of the loan amount (80 percent of 80 percent), with flexibility to guarantee above 80 percent, but never 100 percent.

Industry Position. There is no basis in law or administrative practice for restricting the guarantee to 80 percent of project debt. If incorporated into the implementing regulations, this restriction would reduce the value of the loan guarantees by approximately one-half, increase the project's capital costs and thereby compromise project economics.

As discussed above, the policy limiting coverage under Federal loan guarantees to 80 percent of the loan amount is an administrative guideline, not a statutory requirement. Administrative practice in other Federal loan guarantee programs also allows for flexibility in setting loan guarantee limits up to statutory caps.

Any commercial debt brought into a project must be subordinate to the government-guaranteed debt. Pari passu financing structures would be prohibited under the DOE Guidelines.

Industry Position. It is not uncommon in Federal Government loan guarantee programs to have a second tranche of non-guaranteed commercial debt in a project. Any such commercial debt is, however, typically pari passu with the guaranteed debt. The requirement in the DOE Guidelines that any commercial debt must be subordinate to the guaranteed debt will significantly restrict the interest of commercial lenders and the availability of financing for the program, especially in view of the size of the projects. By making this program less attractive to top-tier lenders and effectively requiring more expensive sub-debt financing structures, the financeability of a project is significantly compromised. Furthermore, the guidelines appear to prohibit the substitution of equity for the unguaranteed portion of debt. As a result, this restriction could actually erode a project's creditworthiness, rather than enhancing the credit structure.

The DOE Guidelines should clarify that the guaranteed debt is non-recourse beyond the project.

Industry Position. The statute makes clear (section 1702(g)(4)(B)) that, in the event of default, the loan guarantee is non-recourse beyond the project: "If the borrower defaults on an obligation, the Secretary shall notify the Attorney General of the default ". On notification, the Attorney General shall take such action as is appropriate to recover the unpaid principal and interest due from—(i) such assets of the defaulting borrower as are associated with the obligation; or (ii) any other security pledged to secure the obligation."

This non-recourse provision is essential for successful project finance structures. If the guaranteed loan is recourse beyond the project—e.g., to the balance sheet of a project sponsor—the rating agencies will impute that debt to that project sponsor's balance sheet, and require the company to increase the amount of equity in its cap-

ital structure in order to maintain its overall debt rating. This would offset much of the economic benefit of the guarantee.

The DOE Guidelines, however, are equivocal on the issue of recourse, at best. The Guidelines require the Secretary of Energy, before finalizing a loan guarantee agreement, to ensure that "the prospective borrower has pledged project assets and other collateral or surety, including non-project-related assets, as determined by the Secretary to be necessary as assurance for the repayment of the loan." The implementing regulations should clarify that guaranteed loans will require security in only the project assets, contracts and agreements.

A project sponsor should, at its discretion, have the flexibility to pledge additional assets or other forms of security as collateral (e.g., to reduce the credit subsidy cost of the loan guarantee), and the implementing regulations should provide this flexibility.

The DOE Guidelines require a project sponsor to obtain a credit assessment of the project in the absence of the loan guarantee from a nationally recognized debt-rating firm.

Industry Position. Because the loan guarantee will be a critical factor affecting the project's economics—e.g., interest costs and leverage factor—and since the industry believes it would be impossible to obtain financing for an advanced nuclear project with 80percent leverage absent the Federal loan guarantee, obtaining a credit assessment for the project without the guarantee is not likely to be useful. Such an assessment would likely demonstrate why these innovative technologies require loan guarantees to obtain financing. It would be more appropriate to evaluate the creditworthiness of the project taking into account the loan guarantee. An independent analysis of the project by consulting engineer or other reputable firm would provide more relevant information for assessing project viability and risk. In fact, such an analysis would be required by the lenders in order to evaluate the project.

The rating agency requirement represents an unnecessary expenditure of time and funds. To the extent that DOE requires a third-party credit assessment of the project as part of its credit analysis, or in the determination of Subsidy Cost, project sponsors should not be limited to utilizing one of the rating agencies and should have the ability to obtain the credit assessment from other acceptable independent firms.

The DOE Guidelines exclude the subsidy cost as well as fees paid for administrative costs from project cost.

Industry Position. The DOE Guidelines exclude the subsidy cost and the fees paid for administrative costs of issuing a loan guarantee from the definition of project cost. These costs are financing costs incurred and expended by the sponsors and should be included in project cost. These exclusions are inconsistent with the treatment of similar costs in commercial project financing and in other Federal programs. For example, the exposure fee charged by Ex-Im Bank is not only counted as a project cost, but borrowers can elect to have that cost financed under the Ex-Im Bank loan or loan guarantee.

CONCLUSION

The U.S. electric power industry faces a major challenge in financing and building the generation, transmission and distribution infrastructure necessary to support U.S. economic growth and maintain reliability. Simply maintaining nuclear power at its current position—approximately 20 percent of U.S. electricity supply— will require construction of 50,000 megawatts of new nuclear generating capacity (approximately 35 large plants) by 2030. The U.S. nuclear industry is positioning itself to meet this challenge: 16 companies or groups of companies are now preparing license applications for as many as 30 new nuclear plants.

An effective loan guarantee program is essential to maintain this momentum.

Given the cost of new nuclear power plants relative to the size of the companies that will build them, and given lenders' unwillingness to provide debt financing to new nuclear plants in the fact of unknown licensing and regulatory risks, the energy loan guarantee program is essential to support financing of a limited number of new nuclear plants. When investors gain confidence that these projects can proceed through construction and into commercial operation without regulatory or political interference, it is likely that the private capital markets will be prepared to undertake nuclear plant financing without the Federal credit support authorized by title XVII of the Energy Policy Act.

Mr. BOUCHER. Thank you very much, Mr. Crane, and thanks to all of our witnesses for their testimony here this afternoon. The

subcommittee very shortly, within approximately the next 6 weeks, will begin constructing legislation that is designed to enhance American energy self-sufficiency. Key among our objectives will be to promote domestic alternatives to petroleum for transportation fuels and we have heard from a number of cellulosic ethanol producers and we heard from yet another here today about the importance of the Federal loan guarantee program to that objective. But it is important for a broad range of energy companies, including those represented here at the table and others.

As you have heard in our questions to Mr. Spurgeon, there is general dissatisfaction on this subcommittee with the pace at which the loan guarantee program has been implemented by DOE to date and we would like to take appropriate steps in order to address those concerns. So in anticipation of the legislation we will soon be writing in this committee and taking to the House floor, there will be an opportunity for correction to the loan guarantee program.

Today I would like to solicit your recommendations, if you have any, for steps that we could take legislatively that would accelerate the award of loan guarantees, improve on the program as you have heard it described by Mr. Spurgeon and your recommendations with regard to steps we could take would be very welcome. So if you have some suggestions, we would like to hear those. Any takers? Yes, Ms. Jorgensen.

Ms. JORGENSEN. Thank you, Mr. Chairman. One recommendation we have with respect to our specific project is because of the specific authorization language in EPAct and the set aside of the budget authority, what we would like to see happen now that the DOE has the program established is a concurrent development of our guarantee alongside of the regulations, so we could be going through the due diligence process, getting our scoring completed and getting a loan guarantee structured.

It couldn't be issued until the regulations are final, but we could move alongside on a parallel path. That is one wish that would really change our in-service date and change the date we can start construction. As you develop a project, things kind of move around in terms of what your longest lead time item is and as described today, I would say this implementation of our loan guarantee has now become our longest lead time item. Thank you.

Mr. BOUCHER. Thank you very much. So you are asking for what amounts to early action on the part of DOE before the loan guarantees can actually be issued in order to begin the, perhaps, informal process of reviewing and giving advice with regard to applications. Does that summarize your request?

Ms. JORGENSEN. That is right, Mr. Chairman. In implementing something as complicated as a loan guarantee program, I think the devil is always in the details when you are doing financing and when you actually delve into a project and structure a guarantee, you are going to identify the issues that, in an abstract reg-making process, you would never even stumble upon.

Mr. BOUCHER. All right. Well, that is a good suggestion and I appreciate your making that. Mr. Crane.

Mr. CRANE. We felt the initial Act was sufficient, but it seems that clarification may be required on the volume limits. They seem

to be more restrictive than when it was interpreted. We have already talked about the 80 percent of the total loan being required. If that may be helpful to bring the Department along further, those would be the two major items. There has to be some understanding that for the nuclear industry, we are not sure if it is five plants, 10 plants or 15 plants that is going to give the certainty to the market to be able to bring in the market participation but there will also have to be an understanding that it has be sustainable construction successfully prior to this program being terminated.

Mr. BOUCHER. So you are asking for clarification that 80 percent means 80 percent, not some lesser number?

Mr. CRANE. Definitely.

Mr. BOUCHER. All right, thank you. Mr. DeVos.

Mr. DEVOS. Thank you. Two items that I would take a look at in the legislation are the fact that a first priority lien is required. My background is, I spent 30 years in lending by requiring the first lien for the guaranteed portion of the loan, you are putting the lender in a subordinate position on the un-guaranteed portion of the loan, that, I do not believe, would be acceptable for the lender. The second one would be the subsidy required the future costs to the Government in the case of default. I think it would be extremely difficult and be biased if I were to be requested to project what you are going to lose. I would say I wouldn't do this project if I thought I was going to lose money.

Mr. BOUCHER. All right, thank you very much. My time has expired. I am pleased to recognize the gentleman from Illinois for 5 minutes.

Mr. HASTERT. Mr. Cosgrove, I was somewhat, again, perturbed listening to your testimony. If I understood right, you said you were going to have a very difficult time projecting what the losses are because you really don't know what the losses are going to be and in fact, in this type of thing there never have been any losses, but yet you have to do that, accumulate what the cost of those losses may be so you can count them against the cost of those people who are borrowing the money. Is that correct?

Mr. COSGROVE. That is correct.

Mr. HASTERT. So if there have never been any losses and we don't have a history, isn't there some type of actuarial thing that you can go to if you don't know? To me, it seems like you are a Government agency. If you don't know, you just make it so difficult that people won't do it.

Mr. COSGROVE. No, this is not an impossible task, it is just that it is a difficult one and one that must be done carefully. These loans, we think, are probably more difficult to estimate the subsidy costs for because they are larger loans and therefore——

Mr. HASTERT. They are not really loans, they are loan guarantees, right?

Mr. COSGROVE. They are loan guarantees. What we were concerned with is that DOE had not started the process of putting in place the mechanism for how they were going to do these, come up with these estimates. Obviously, other agencies do make these kinds of estimates. We have done, over the years, a number of reports on agencies like the Maritime Administration and their ef-

forts to estimate subsidy cost. Those are also for large loans, large loan guarantees. It is not impossible; it is difficult to do and——

Mr. HASTERT. Well, if I might interrupt you and I understand that it is difficult to do, but it was pretty obvious, from the Department of Energy, that they weren't sure what they were going to do, either. I am not sure if they understood what they have to do. But the fact is, my question was isn't there any kind of an experience? You said there was, that you could go to an actuarial information on past coal projects or past nuclear projects.

Mr. COSGROVE. I assume that there is. That was beyond the scope of our work and so it is not something specifically that I have to recommend to you today.

Mr. HASTERT. Let me ask you another question. Do you think that the GAO finding issued Friday that the DOE violated the Anti-Deficiency Act will delay the implementation of the program?

Mr. COSGROVE. That opinion came out of our General Counsel's office and I am not prepared to talk about the details of that. I do have with me Susan Poling from our General Counsel's office who could answer questions. My understanding, however, is that that opinion applied to the past. Going forward, DOE has what it needs, both in terms of funds and authority to operate at least——

Mr. HASTERT. So you are not prepared to make a guess, I guess, as the gentleman before said whether it was going the implementation of the program or not?

Ms. POLING. Mr. Hastert, I am Susan Poling. I am Associate General Counsel at the GAO and was part of the team that issued that opinion. And I would say definitely that it should not delay, in any way, their going forward, because as of February 15, they have the appropriation, they have the amount, $4 million, and they also have the appropriation for their administrative costs.

Mr. HASTERT. Thank you. That is the most concise answer I have had all day. Appreciate it. Mr. DeVos, is there a drop dead date when you, if you don't get a loan guarantee, your project can't go forward?

Mr. DEVOS. No, because we will pursue other alternatives, which will probably cost us higher interest rates on and so forth.

Mr. HASTERT. So if you don't have that Government guarantee that we mandated in 2005 laws, you are going to have to go someplace else?

Mr. DEVOS. Yes.

Mr. HASTERT. Mr. Crane, I understand that the administration believes that it is important for the private sector having a substantial financial interest in ensuring that the viability of these projects exist. For a $5 billion nuclear project, the project sponsor would have to have a billion dollar equity at risk, assuming a loan guarantee of 80 percent of the project costs. Do you agree that a billion dollars is sufficient to ensure the project sponsor's commitment to succeed?

Mr. CRANE. It is more than sufficient to ensure it will succeed. For our company, that is almost a year's bottom line.

Mr. HASTERT. In the event of a default, the equity investors receive no protection under a DOE title XVII loan guarantee. Their $1 billion investment is fully at risk. Doesn't provide a strong in-

centive, as you said, to ensure that the risk associated with the projects are fully evaluated and protected?

Mr. CRANE. We do. And the first recourse goes back to the equity holder.

Mr. HASTERT. Thank you. I yield back.

Mr. BOUCHER. Thank you very much, Mr. Hastert. The gentleman from Illinois, Mr. Shimkus.

Mr. SHIMKUS. And I can be real quick. It is just a quick question for Ms. Jorgensen. Did I hear you correctly in saying that your biggest obstacle right now is the fact that the Federal bureaucracy has not given you certainty on a loan guarantee program?

Ms. JORGENSEN. Congressman, that is one of our issues that our project faces. The hardest thing for us, when you get to this point in the schedule, is that if you don't know with certainty when the loan guarantee will be issued, you can't get to the final stage of your engineering and procurement process, which is a 12-month process, so until you can estimate when you are going to land, when the loan guarantee could be issued, you can't move to that final financing.

Mr. SHIMKUS. So I take that as a yes?

Ms. JORGENSEN. Yes.

Mr. SHIMKUS. That's your biggest obstacle is the loan guarantee program. We are really excited about IGCC programs and I hope we can move expeditiously to get this thing resolved. That is all, Mr. Chairman. I yield back.

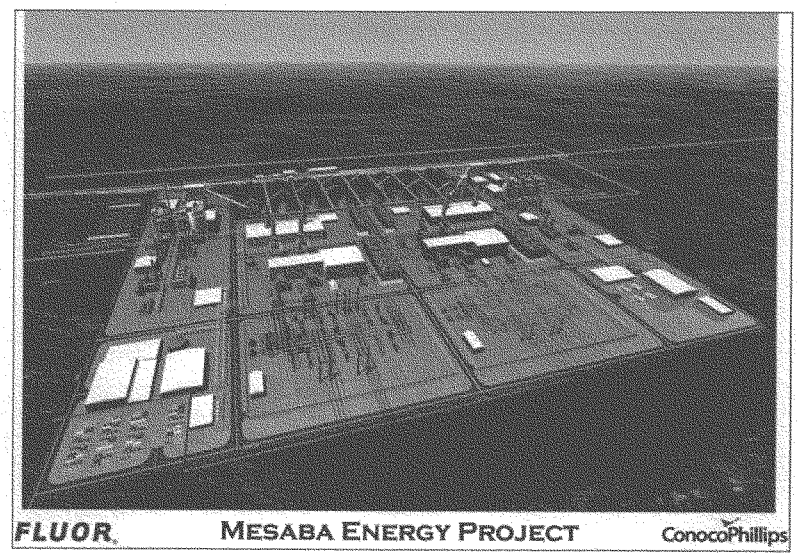
Mr. BOUCHER. Thank you very much, Mr. Shimkus. My thanks to each of our witnesses. Your testimony has been extremely helpful to us today. There may be some follow-up questions that we will propound to you by letter and if so, your expeditious response would be appreciated. With the committee's thanks to our witnesses, this hearing stands adjourned.

[Whereupon, at 4:50 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

THE MESABA ENERGY PROJECT

DEVELOPED BY EXCELSIOR ENERGY INC.



11100 WAYZATA BOULEVARD
SUITE 305
MINNETONKA, MN 55305
PHONE: 952.847.2360
FAX: 952.847.2373

EXCELSIOR ENERGY

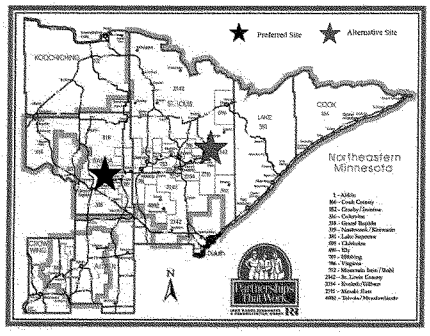
424 ROOSEVELT AVENUE
P.O. BOX 227
COLERAINE, MN 55722
PHONE: 218.245.1205
FAX: 218.245.1604

WWW.EXCELSIORENERGY.COM

MESABA ENERGY PROJECT

OVERVIEW

The Mesaba Energy Project (the "Project") is a 600 MW Integrated Gasification Combined Cycle ("IGCC") electric power generating station to be fueled primarily by subbituminous Powder River Basin ("PRB") coal and petroleum coke ("petcoke"). It is also designed to utilize Illinois No. 6 coal. The Project will be located in the Iron Range, part of the Taconite Tax Relief Area of Northeastern Minnesota.



Excelsior Energy Inc. ("Excelsior"), an energy development company based in Minnetonka, Minnesota, is developing the Project on behalf of its affiliate, MEP-I LLC ("MEP-I"), which will own and issue all debt and equity to fund construction of the Project. Excelsior was established in 2001 with the sole purpose of deploying IGCC technology in Northeastern Minnesota. The Project will use a gasification process based on ConocoPhillips' E-Gas™ Technology. Fluor Corporation ("Fluor") has conducted significant engineering to date and is expected to start Front End Engineering and Design work in 2007. ConocoPhillips and Fluor have provided all feasibility, optimization, design, and engineering services to the Project.

The Project represents one of the most advanced IGCC projects in the country, with permitting, regulatory approval, engineering, transmission access, and other development activities underway; financial close and start of construction are scheduled for 2008. Additionally, Excelsior has filed a carbon management plan with the State of Minnesota as part of its regulatory approval process

The Project is specifically authorized in the Energy Policy Act of 2005 ("EPAct")[1] to receive a loan guarantee, and submitted its Pre-Application for the loan guarantee in December of 2006. Securing the loan guarantee in a timely manner will permit the Project to demonstrate precedent-setting technical, commercial, and financial structures in both the commercial deployment of IGCC and the longer term development of carbon capture options. The loan guarantee will allow capital markets financing with terms resulting in a cost of electricity ("COE") competitive with conventional coal alternatives. Overcoming these barriers will facilitate the rapid market penetration of the IGCC technology.

[1] Energy Policy Act of 2005. 42 U.S.C.A. § 16513(c)(1)(C).

> The Secretary may make guarantees for [a] gasification project[] . . .
> located in a taconite producing region of the United States that is entitled under the law of the State in which the plant is located to enter into a long-term contract approved by a State public utility Commission to sell at least 450 megawatts of output to a utility.

BACKGROUND OF STATE AND FEDERAL SUPPORT

In 2003, the Minnesota Legislature enacted legislation (the "Enabling Legislation"—Minnesota Statutes §§ 216B.1694, 216B.1693) that removed the barriers to entry for IGCC technology that were within the state's control, creating the opportunity to develop multiple IGCC facilities, on up to three sites on the Minnesota Iron Range. The Enabling Legislation exempts the Project from state certificate of need requirements, provides the Project with rights to a long-term power purchase contract (subject to certain findings by the Minnesota Public Utilities Commission ("MPUC")) and requires that proposals for supply from project expansions be considered prior to MPUC approval of any new proposed fossil fuel facilities in the state. Additional 2005 legislation exempted the Project from personal property taxes, provided an appropriation of state waters for cooling purposes, and provided for an appropriation of $11.5 million in state funds for project-related infrastructure to be developed by Itasca County.

Pursuant to the Enabling Legislation, the Project expects to sell all of the electricity from the plant to Northern States Power ("NSP"), a unit of Xcel Energy, under a long-term power purchase agreement ("PPA"). MPUC approval of the PPA is pending and anticipated in mid-2007. Construction is expected to begin in 2008, with commercial operations commencing in early 2012.

In addition to the Project's specific loan guarantee authorization in EPAct Section 1703(c)(1)(C), the Project was selected to receive $36 million of funding under a competitive solicitation for Round II of the Department of Energy's ("DOE") Clean Coal Power Initiative ("CCPI") in 2004. The Project is currently using a portion of that award to fund part of the Project's development expenditures. Under EPAct, the CCPI appropriation is also available as an offset to fund a portion of the guarantee subsidy cost of the federal loan program.[2]

Over forty-four million dollars ($44.2 million) in pre-construction development costs will be funded through a combination of equity investments, in-kind contributions, and other sources, including the DOE CCPI award and funds from two state sources—a grant of $10 million from the state's Renewable Development Fund and $9.5 million in the form of convertible loans from Iron Range Resources, a Minnesota state agency with the goal of promoting economic development in northeastern Minnesota.

KEY PROJECT MILESTONES ACHIEVED

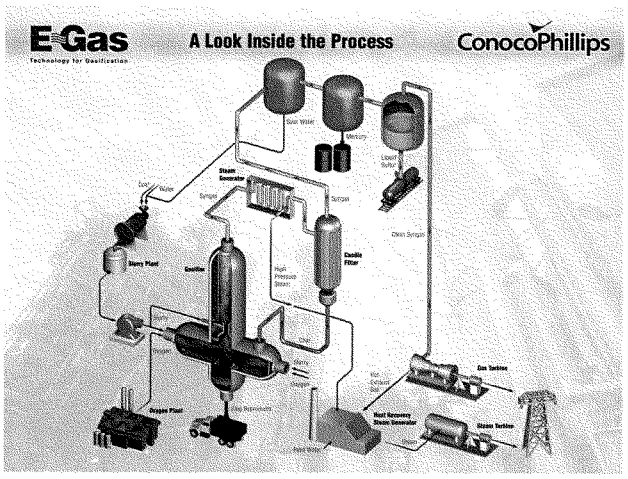
- Selected and secured site through option agreement; completed site feasibility work
- Licensed ConocoPhillips E-Gas™ Technology for the Project
- Review and approval process for all Minnesota permits underway (permits expected December 2007)
- Federal Environmental Impact Statement ("EIS") in process (completion expected October 2007)
- Carbon Capture and Sequestration Plan developed in collaboration with DOE's Plains CO_2 Reduction ("PCOR") partnership and filed with the MPUC
- Submitted Large Generator Interconnect Request through MISO process, including Transmission System Impact and Facilities Studies
- Completed design feasibility and optimization analysis, including fuel type selection and conceptual plant design

[2] Energy Policy Act of 2005. 42 U.S.C.A. § 16514(B)

- Retained R.W. Beck (lender's engineer) and Granherne (owner's engineer) to support all technical efforts
- Selected subbituminous coal as reference fuel feedstock and identified design fuels
- Structured PPA and filed for regulatory approval; MPUC approval expected Summer 2007
- Enacted Enabling Legislation, as well as supportive personal property tax exemption and water appropriation, and $11.5 million state appropriation to Itasca County for infrastructure support
- Achieved fully funded development budget; in discussion with several equity investors for permanent construction equity

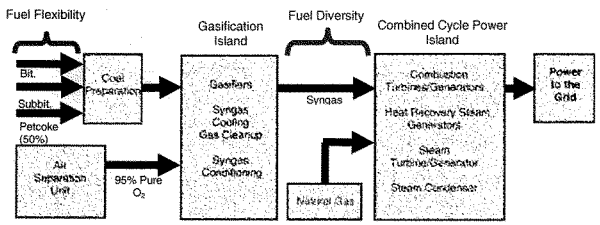
TECHNOLOGY

IGCC integrates two principal technologies: (1) coal gasification and its associated sub-systems, and (2) combined cycle power generation. The Project will use a gasification process based on ConocoPhillips' E-Gas™ Technology. In the E-Gas™ process, coal, petcoke, or blends of coal and petcoke are crushed, slurried with water, and pumped into a pressurized vessel (the gasifier) along with purified oxygen. In the gasifier, controlled reactions take place, thermally converting feedstock materials into a gaseous fuel known as syngas. The syngas is cooled, cleaned of contaminants, and then combusted in a combustion turbine, which is directly connected to a combustion turbine generator ("CTG"). The expansion of hot combustion gases inside the combustion turbine creates rotational energy that spins the generator and produces electricity. The hot exhaust gases exiting the CTG pass through a heat recovery steam generator, a type of boiler, where steam is produced. The resulting steam is piped to a steam turbine that is connected to an electric generator. The expansion of steam inside the steam turbine spins the generator to produce an additional source of electricity from the waste heat generated in the combustion process, improving the thermal efficiency of the cycle. This combination of equipment is referred to as a combined cycle power plant. The combination of the gasification process with the combined cycle power plant constitutes the IGCC technology.



The Project's design is based on lessons learned from the 262 MW (net) Wabash River Project in Terre Haute, Indiana. Wabash River, in operation since 1995, was built under the DOE's Clean Coal Technology Program (the predecessor to CCPI). Following construction of the Wabash River plant, the DOE funded studies of potential performance and technological upgrades incorporating nearly 1,600 design and operational lessons learned. The Project will integrate numerous design and operational improvements based on those studies, representing a substantial advance in the original Wabash River technology, design, and systems integration. This project is the launch project for the E-Gas™ Technology 600 MW reference design.

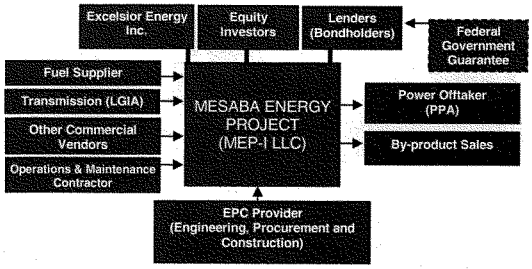
The Project will pioneer a fuel-flexible design that is based on ConocoPhillips' IGCC experience with a wide variety of feedstocks, including the Project's PRB subbituminous reference fuel. The E-Gas™ Technology was initially designed for subbituminous coal, and has produced more energy using subbituminous coal than all other fuels combined. Wabash River and its predecessor plant, Louisiana Gasification Technology Inc. ("LGTI"), have demonstrated the flexibility of the E-Gas™ design to use feedstocks ranging from 100% subbituminous coal to 100% petcoke.



Excelsior's Plan for Carbon Capture and Sequestration identifies opportunities for carbon dioxide ("CO_2") capture and sequestration ("CCS"). The plan reflects IGCC's ability to capture CO_2 emissions more efficiently than any other fossil-fueled facility because carbon is captured from the plant's fuel prior to combustion at high pressures, temperatures, and concentrations. In contrast, pulverized coal technologies must scrub CO_2 from a very large volume of low pressure, low temperature stack emissions. Technology is commercially available to capture up to 30% of the Project's CO_2 emissions.

PROJECT STRUCTURE AND PPA

The Project is being developed using a traditional project finance model that incorporates the authorized federal loan guarantee. This structure ensures that cash flow from the Project will be sufficient to cover all debt payments even in the downside scenario where the Project has lower operation capacity factors during the early operating years. The Project will be a self-contained business unit with all cash inflows (revenues) and outflows (capital costs and operating expenses) captured in MEP-I, a special purpose entity. It is

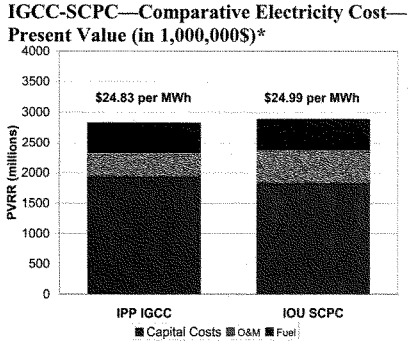


structured to ensure a stable source of cash flow with a long-term PPA providing a predictable cash flow stream, and a lump sum turnkey construction contract that fixes construction costs and schedules resulting in very strong debt service coverage ratios. The Federal loan guarantee will allow the debt to equity ratio to be optimized, and interest rates reduced—providing a lower cost of capital and a competitive COE.

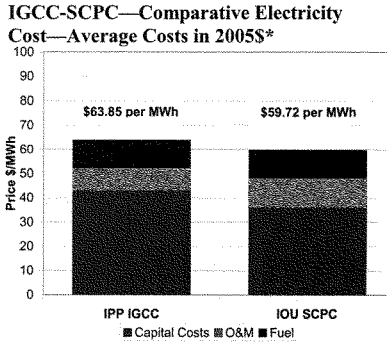
The Project will sell all of its capacity to NSP under a long-term, 25-year contract. The PPA allows for the lowest risk-adjusted COE taking into account the baseload nature of the Project and unique operating characteristics of the IGCC technology, such as its fuel flexibility and ability to provide natural gas fired backup. The Project's PPA provides for a full capacity payment in the first three years of operation even in the event of potentially reduced levels of plant availability. This will provide the Project with a reliable revenue stream and cash flow availability to support debt service while the plant is reaching its full capability. The tariff was developed with the assumption that the authorized loan guarantee was in place. The guarantee will both reduce the interest rate on project debt and ensure that appropriate debt to equity ratios are achieved, thereby eliminating the principal barrier to the initial fleet of "first mover" commercial IGCC plants that are critical to rapid market penetration of the IGCC technology.

EPAct's Incentives for Innovative Technologies program (loan guarantee program) and Qualifying Advanced Coal Project Program (tax credit program) are mechanisms designed to reduce the COE from the first commercial fleet of IGCC facilities while providing investors an adequate return on invested capital. As shown below, analysis by Excelsior and its experts demonstrates that with the loan guarantee and the federal tax credits, the COE from the Project is similar to the COE from a utility-owned super-critical pulverized coal ("SCPC") plant. Further analysis demonstrates that on a total life cycle cost basis, the COE from the Project will be less than that of the SCPC facility, particularly when either future fine particulate matter ($PM_{2.5}$) costs are internalized or carbon constraints are imposed.

IGCC-SCPC—Comparative Electricity Cost—Present Value (in 1,000,000$)*



IGCC-SCPC—Comparative Electricity Cost—Average Costs in 2005$*



* Numbers based on assumptions at the time calculations were completed in December 2005; discount rate of 7.95% used for present value calculation.

The Project's capital costs of $2.2 billion are the sum of actual plant construction costs under an engineering, procurement and construction ("EPC") Agreement, along with investment in related infrastructure facilities that are outside of the battery limits of the plant, repayment of development loans, and other customary development costs. The capital costs budget is based on engineering and cost estimating efforts of the technical team composed of Fluor and ConocoPhillips, with estimated escalation. This estimate takes into account the recent run-up of capital costs experienced in the construction markets since 2003. This total cost also includes the higher interest accrued during construction due to the longer term construction time frame for any baseload generation, as compared to recently-constructed natural gas fired combined cycle plants which can be built in a shorter time frame.

FINANCING STRUCTURE

The financing plan for the Project is within the parameters of the EPAct authorization, with 77% of eligible project costs financed with debt and 23% of eligible project costs funded by equity sources. Equity will also fund any portion of the guarantee subsidy cost above the $36 million in federal appropriations available to the Project. Excelsior plans a capital market placement of long-term bonds (guaranteed under the federal loan guarantee for the majority of principal). Since early 2004, Credit Suisse Group ("Credit Suisse") has acted as financial advisor to the Project, with specific focus on the overall financial structure of the transaction to support debt and equity financings. Credit Suisse has a mandate to place permanent equity and also may be the bond underwriter for the project debt.

The free cash flow coverage for the base case provides for over two times debt service coverage, which is superior to what would typically be required from lenders for a project with a long-term contract for the sale of power. This very strong cash flow provides very significant protection to lenders and will meet the more stringent requirements of credit rating agencies in evaluating the credit of an early mover IGCC project. Based on the Project's strong contractual protections, it is anticipated that the Project, structured with an appropriate EPC agreement, could achieve an investment grade rating, but for the existence of the rating agencies' unwillingness to provide an investment grade rating to IGCC projects until the early mover projects confirm the commercial performance of the IGCC technology. A strong high-yield rating is anticipated without a federal loan guarantee to alleviate these concerns. Without an investment grade rating, however, a capital markets offering of the size required for this project may not be feasible, and would not result in debt costs at a level that would provide a competitive electricity price.

The loan guarantees issued under EPAct offer several core benefits, including: (1) facilitating the financing of the Project where imperfections in the banking and capital markets would otherwise result in an insufficient availability of financing sources to supply the needed debt facilities, and (2) providing the Project with a lower cost of financing than could be available to a first mover IGCC project in the banking and capital markets absent the loan guarantees, thus enabling the COE from the Project to be competitive with that generated by a conventional SCPC plant. EPAct contemplates that the loan guarantee would cover 80% of total project costs in furtherance of these two objectives.

In order to not delay the Project's anticipated Financial Close in 2008, the loan guarantee application process should be underway in mid-2007. Excelsior and Credit Suisse will place the Project's permanent equity prior to financial close. Equity investors may be traditional financial sponsors (such as private equity) or strategic investors (utilities, independent power companies, and other energy sector participants). While all equity discussions are under confidentiality agreements, discussions with multiple potential investors are ongoing and interest from equity investors in the Project remains high.

IMPACT OF THE FEDERAL LOAN GUARANTEE

The key capital market imperfections to be addressed in the financing of IGCC and other innovative technologies are: (1) the overall reluctance of lenders to adopt and lend to the first commercial scale facilities employing a given technology, (2) the low credit rating anticipated due to concerns by the credit rating agencies about the lack of lending experience with the technology, and (3) the overall size of the financing. It was to address these issues, in combination with the desire to lower output costs through the availability of lower interest rates, that EPAct loan guarantee provisions were enacted.

Without the benefit of a federal loan guarantee, it is anticipated that rating agencies, with the existing market uncertainties, would not give any IGCC project an investment grade rating. Accordingly, projects would be required to turn to the high yield bond markets (which may have insufficient liquidity for the large financing size of over $1.5 billion and higher interest costs) or the Term B Loan (with equally high interest costs, shorter tenors, and significant refinancing risk). The likelihood of closing these transactions is uncertain. Even if closed, the COE could be approximately 25% higher under the terms likely to be achieved in this financing market. The lower COE with the loan guarantee is due to longer debt tenors, higher leverage, and lower interest rates.

The availability and receipt of the federal loan guarantee would provide two fundamental benefits for the Project: (1) a catalyst to close financing, and (2) a reduction in the COE. The guarantee would make the COE from an IGCC plant competitive with that from a conventional SCPC plant. Timely implementation of this program would ensure and expedite the rapid market penetration of IGCC in advance of a period when significant new baseload generation will be constructed in the U.S. and in other coal-rich countries such as China and India.

CLIMATE CHANGE AND IGCC

Coal will continue to play a major role in U.S. and global power generation during this century.

- Coal accounts for the bulk of CO_2 emissions from electric power production and is an essential part of the Nation's energy mix. Developing technological means to reduce carbon emissions from coal is a critical component of any plan to stabilize CO_2 concentrations and protect consumers from the cost of complying with greenhouse gas limits.

- IGCC can capture 20–30% of CO_2 emissions now, and has identified a research and development path to achieve 90^+% capture. 90^+% carbon capture results in achieving a critical component of a hydrogen economy, because the plant will then operate on hydrogen as its fuel source.

- Clean Air Task Force states that if we do not commercialize IGCC and carbon capture and sequestration in the next 10–15 years, it is "game over" for the planet in terms of stabilizing atmospheric concentrations of greenhouse gases at acceptable levels, from a climate change perspective.

- According to the Clean Air Task Force, advancing IGCC/CCS by only 6 months would save in China alone as much carbon per year as all wind power installed today.

- Carbon capture and sequestration offers the additional energy security benefit of allowing for enhanced oil recovery in the U.S.—massive volumes of oil can be recovered from existing wells through CO_2 injection.

- Excelsior is participating in the DOE-sponsored Plains CO_2 Reduction Partnership ("PCOR") initiative, led by the University of North Dakota's Energy & Environmental Research Center ("EERC"). PCOR and EERC—together with Excelsior and Fluor—developed a detailed CO_2 capture and sequestration plan for the Mesaba Energy Project—the first of its kind in the country.

FOSTERING IGCC ADVANCES AMERICAN ENERGY SECURITY

Among the principal energy challenges facing America is reducing our reliance on foreign sources of energy. Over the past 15 years, U.S. natural gas consumption has increased due to lower costs associated with natural gas plants and due to the environmental superiority and ease of permitting of natural gas technology compared to traditional coal-fired power plants. At the same time, the price of natural gas has risen dramatically, and our dependence on imported liquefied natural gas ("LNG") is expected to soar. The volatility of natural gas prices effects production costs for U.S. companies, disadvantaging them in the global economy. Locking into large view investments in LNG infrastructure to meet power needs harms U.S. energy security.

Coal has long been the workhorse of the U.S. electric power industry, with the nation's coal resources exceeding that of the world's known recoverable oil. Preserving this economically vital energy foundation requires not only investing in the development of cleaner and more efficient technologies, but funding deployment of technologies that use coal to generate electricity while meeting current environmental regulations and with the flexibility to meet carbon constraints. Federal loan guarantees are the most efficient form of deployment assistance.

With the issuance of the authorized federal loan guarantee, the Mesaba Energy Project will drive market adoption of carbon capture-adaptable integrated gasification combined cycle technology, the nation's most promising clean coal technology.

United States Government Accountability Office
Washington, DC 20548

B-308715

April 20, 2007

The Honorable Peter J. Visclosky
Chairman
Subcommittee on Energy and Water Development
Committee on Appropriations
House of Representatives

The Honorable David L. Hobson
Ranking Minority Member
Subcommittee on Energy and Water Development
Committee on Appropriations
House of Representatives

Subject: *Department of Energy—Title XVII Loan Guarantee Program*

In February 2007, GAO responded to a number of questions you asked concerning the Department of Energy's (DOE) loan guarantee authority under title XVII (Incentives for Innovative Technologies) of the Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594, 1117–22 (Aug. 8, 2005) (EPACT). *See* GAO, *DOE: 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). During that engagement, you asked us to issue a separate legal opinion addressing the following related questions:

1) Does the loan guarantee authority in EPACT section 1702(b)(2) constitute authority for DOE to make loan guarantees notwithstanding the requirements of the Federal Credit Reform Act of 1990[1] (FCRA)? Or does section 1702(b)(2) constitute new budget authority for FCRA purposes?

2) Was DOE authorized to engage in activities such as issuing and publishing in the Federal Register program guidelines and a solicitation announcement inviting pre-application proposals for guaranteed loans

[1] Pub. L. No. 101-508, title XIII, subtitle B, § 13201, 104 Stat 1388, 1388–610 (Nov. 5, 1990), *codified at* 2 U.S.C. § 661c.

in advance of the enactment of appropriations to make loans under EPACT's title XVII program?[2]

As explained further below, we conclude as follows:

1) EPACT section 1702(b)(2) confers upon DOE independent authority to make loan guarantees, notwithstanding the FCRA requirements. Given our answer to the first part of this question, we did not address the second part concerning whether, in the alternative, section 1702(b)(2) constitutes new budget authority for the purposes of FCRA.

2) DOE engaged in preparatory activities to implement the granting of guaranteed loans under EPACT title XVII during a period when DOE was affirmatively prohibited from implementing that title by 42 U.S.C. § 7278, a statutory prohibition applicable to DOE guaranteed loan programs.[3] These activities violated section 7278; the purpose statute, 31 U.S.C. § 1301(a); and the Antideficiency Act, 31 U.S.C. § 1341(a).

Consistent with our practice in rendering opinions, we contacted DOE to establish the factual record and elicit the agency's legal position on the subject matter of the

---

[2] You also asked whether EPACT section 1702(h), which authorizes DOE to collect fees for administrative expenses, appropriates those fees for use in the title XVII program. In the course of this opinion, we learned that DOE believes section 1702(h) does not appropriate those fees, and that DOE has not yet assessed any fees under it. Letter from David R. Hill, General Counsel, DOE, to Susan A. Poling, Managing Associate General Counsel, GAO, Feb. 9, 2007, at 2; DOE, *Loan Guarantees for Projects that Employ Innovative Technologies; Guidelines for Proposals Submitted in Response to the First Solicitation*, 71 Fed. Reg. 46,451, 46,452–53 (Aug. 14, 2006). Moreover, the Revised Continuing Appropriations Resolution, 2007, explicitly appropriated for DOE's use (as offsetting collections) any fees that DOE does collect under section 1702(h) during fiscal year 2007. Pub. L. No. 110-5, title II, ch. 3, § 20320(a), 121 Stat. 8, 21 (Feb. 15, 2007). For these reasons, there is no longer a need to address this question.

[3] In pertinent part, section 7278 states: "None of the funds made available to the Department of Energy under . . . Energy and Water Development Appropriations Acts shall be used to implement or finance authorized . . . loan guarantee programs unless specific provision is made for such programs in an appropriation Act." This provision was originally enacted as section 301 of the Energy and Water Development Appropriations Act, 1993, Pub. L. No. 102-377, title III, 106 Stat. 1315, 1338 (Oct. 2, 1992).

request.[4] Letter from Susan A. Poling, Managing Associate General Counsel, GAO, to David R. Hill, General Counsel, DOE, Jan. 12, 2007. In this instance, we received the views of DOE's General Counsel. Letter from David R. Hill, General Counsel, DOE, to Susan A. Poling, Managing Associate General Counsel, GAO, Feb. 9, 2007 (Hill Letter).

BACKGROUND

Congress enacted title XVII (Incentives for Innovative Technologies) as part of the Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594, 1117–22 (Aug. 8, 2005) (EPACT), codified at 22 U.S.C. §§ 16511–16514. This title directs DOE to make loan guarantees for projects that employ new or significantly improved technologies to address air pollution or anthropogenic emissions of greenhouse gases. EPACT, § 1703(a). The title identifies both categories of projects and some specific projects that are eligible for these loan guarantees. *Id.* §§ 1703(b), 1703(c). Title XVII provides, among other things, that no loan guarantee may be made unless "an appropriation for the cost"[5] of the loan guarantee has been made, or DOE has received from the borrower and deposited into the Treasury "payment in full for the cost of the obligation." *Id.* § 1702(b). Title XVII also authorizes DOE to "charge and collect fees for guarantees in amounts the Secretary determines are sufficient to cover applicable administrative expenses." *Id.* § 1702(h)(1). Fees collected under this authority must be deposited into the Treasury, but "remain available until expended, subject to such other conditions as are contained in annual appropriations Acts." *Id.* §1702(h)(2). While title XVII authorizes the appropriation of "such sums as are necessary to provide the cost of guarantees under this title," *id.* § 1704, no funds were specifically appropriated for this purpose at the time of EPACT's enactment.

Since the enactment of title XVII, DOE has undertaken what it describes as "preparatory activities reasonably necessary for [DOE] to be in a position to make guarantees authorized by Title XVII." Hill Letter, at 3. DOE informed us that these activities included establishing and maintaining a Web site for the program;[6] developing policies and "guidelines" for the program and publishing them in the *Federal Register*;[7] and issuing a solicitation announcement inviting interested parties

---

[4] GAO, *Procedures and Practices for Legal Decisions and Opinions*, GAO-06-1064SP (Washington, D.C.: Sept. 2006), *available at* www.gao.gov/congress.html (last visited Apr. 16, 2007).

[5] Section 1702(b) requires an appropriation for the "cost," which section 1701(2) defines as "the cost of a loan guarantee." EPACT, §§ 1701(2), 1702(b).

[6] *See* DOE, *Loan Guarantee Program, available at* www.lgprogram.energy.gov/index.html (last visited Apr. 16, 2007).

[7] DOE, *Loan Guarantees for Projects That Employ Innovative Technologies; Guidelines for Proposals Submitted in Response to the First Solicitation*, 71 Fed. Reg. 46,451 (Aug. 14, 2006).

to submit "pre-applications" for title XVII guaranteed loans.[8] *See* GAO-07-339R, at 13, 20. In response to its solicitation, DOE received over 100 pre-applications. *Id.* at 43.

To facilitate work on these and other activities, DOE established the Loan Guarantee Program Office. *Implementation of the Provisions of the Energy Policy Act of 2005: Hearing before the Senate Committee on Energy and Natural Resources*, 109th Cong. 50 (2006) (statement by DOE Under Secretary David K. Garman), *available at* www.ne.doe.gov/pdfFiles/garmanTestimony050106.pdf (last visited Apr. 16, 2007). *See also* GAO-07-339R, at 2. From March through October 2006, DOE staffed that office with three employees detailed from different DOE organizations. *Id.* at 16, 19, 21. Total salaries, benefits, and travel expenses for the detailed employees amounted to about $309,000 during fiscal year 2006 and about $38,000 from October 1 through October 31, 2006. *Id.* at 19. These amounts were paid from fiscal year 2006 and 2007 DOE appropriations for Departmental Administration[9] and Science.[10] *Id.* DOE also issued task orders to obtain private contractor support services for various tasks. *Id.* These orders cost an additional $121,194 in fiscal year 2006, and $34,829 in October of fiscal year 2007, which were paid from DOE's fiscal year 2006 and 2007 appropriations for Energy Supply and Conservation[11] and Science.[12] *Id.* As of October 31, 2006, DOE had spent a total of about $503,000 to prepare for the awarding of title XVII guaranteed loans. *Id.* at 16.

On October 31, 2006, DOE terminated the details of the three employees assigned to the Loan Guarantee Program Office and returned those employees to their home organizations. GAO-07-339R, at 21. However, DOE continued to perform preparatory activities. As of January 2007, DOE, using its fiscal year 2007 appropriation for

---

[8] DOE, Solicitation No. DE-PS01-06LG00001, *Federal Loan Guarantees for Projects that Employ Innovative Technologies in Support of the Advanced Energy Initiative*, (Aug. 8, 2006), *available at* www.lgprogram.energy.gov/Solicitationfinal.pdf (last visited Apr. 16, 2007).

[9] Energy and Water Development Appropriations Act, 2006, Pub. L. No. 109-103, title III, 119 Stat. 2247, 2273–74 (Nov. 19, 2005) ("For salaries and expenses of the Department of Energy necessary for departmental administration"); Pub. L. No. 110-5, §§ 101(a)(2), 20315.

[10] Pub. L. No. 109-103, title III ("For Department of Energy expenses . . . necessary for science activities"); Pub. L. No. 110-5, §§ 101(a)(2), 20313.

[11] Pub. L. No. 109-103, title III ("For Department of Energy expenses . . . necessary for energy supply and energy conservation activities"); Pub. L. No. 110-5, §§ 101(a)(2), 20314.

[12] *See* note 10, *supra*.

Departmental Administration,[13] assigned staff in its Office of General Counsel to perform various title XVII tasks, including preparing a notice of proposed rulemaking, drafting and perfecting a charter for a departmental Credit Review Board, drafting program regulations, and evaluating pre-applications for loan guarantees. *Id.* at 2, 21, 43. With the same appropriation, DOE used staff from its Office of the Chief Financial Officer to maintain the title XVII Web site. *Id.* DOE used its fiscal year 2007 Energy Supply and Conservation appropriation[14] to pay for task order support services, such as responding to program inquiries. *Id.* We do not know what amounts DOE spent on these activities after October 31, 2006.

DISCUSSION

This opinion addresses two questions. We answer them below.

FCRA and Section 1702(b)(2)

First, we address whether the loan guarantee authority in EPACT section 1702(b)(2) constitutes authority for DOE to make loan guarantees notwithstanding the requirements of FCRA, or whether section 1702(b)(2) constitutes new budget authority for FCRA purposes. FCRA provides, with certain exceptions not relevant here, that notwithstanding any other provision of law, new loan guarantee commitments may be made "*only to the extent that*—

> "(1) new budget authority to cover their costs is *provided in advance in an appropriations Act;*
>
> "(2) a limitation on the use of funds otherwise available for the cost of a direct loan or loan guarantee program has been *provided in advance in an appropriations Act;* or
>
> "(3) authority is otherwise *provided in appropriation Acts.*"

2 U.S.C. § 661c(b) (emphasis added). EPACT section 1702(b) says that no loan guarantees shall be made unless—

> "(1) an appropriation for the cost has been made, *or*
>
> "(2) the Secretary has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury."

EPACT, § 1702(b) (emphasis added). In February 2007, Congress appropriated amounts to cover the costs of loan guarantees. Pub. L. No. 110-5, §§ 20315, 20320.

---

[13] *See* note 9, *supra.*

[14] *See* note 11, *supra.*

At the time of your request, however, DOE did not have an appropriation for this purpose, raising the question of whether subsection (b)(2) provides DOE authority independent of FCRA and subsection (b)(1) to make loan guarantees. We think it does.

The language of section 1702(b) makes clear that Congress contemplated two possible paths for making loan guarantees under title XVII. DOE, consistent with FCRA (2 U.S.C. § 661c(b)), could issue loan guarantees pursuant to appropriations for that purpose (EPACT, § 1702(b)(1)); or DOE could issue loan guarantees if it receives payments by borrowers of the "full cost of the obligation" (EPACT, § 1702(b)(2)). To read section 1702(b) as subjecting title XVII loan guarantees to the requirements of FCRA would read subsection (b)(2) out of the law, and we cannot do that; we have to give meaning to all of the enacted language. *E.g.*, 70 Comp. Gen. 351, 354 (1991); 29 Comp. Gen. 124, 126 (1949). *See also* 2A Sutherland, *Statutory Construction*, § 46:06 at 193–94 (6th ed. 2000). Section 1702(b)(2) is clearly inconsistent with FCRA, and it is a later enacted, more specific law. It is well established that a later enacted, specific statute will typically supersede a conflicting previously enacted, general statute to the extent of the inconsistency. *E.g.*, *Smith v. Robinson*, 468 U.S. 992, 1024 (1984); B-255979, Oct. 30, 1995. For these reasons, we conclude that EPACT section 1702(b)(2) allows DOE to issue loan guarantees if the borrowers pay the "full cost of the obligation." The alternative path clearly represents authority to make loan guarantees independent of and notwithstanding the earlier, more general FCRA requirements.

Given our answer to the first part of this question, we need not address the second part which asks whether, in the alternative, section 1702(b)(2) constitutes new budget authority for the purposes of FCRA. Suffice it to say that section 1702(b)(2) provides DOE authority to make loan guarantees independent of FCRA.

DOE's Title XVII Activities and Statutory Restrictions

The second question to be addressed is whether DOE was authorized to engage in activities such as issuing and publishing in the Federal Register program guidelines and a solicitation announcement inviting pre-application proposals for guaranteed loans in advance of the enactment of appropriations to make loans under EPACT's title XVII program. By law, "[n]one of the funds made available to the Department of Energy under . . . Energy and Water Development Appropriations Acts shall be used to *implement or finance* authorized . . . loan guarantee programs unless specific provision is made for such programs in an appropriation Act." 42 U.S.C. § 7278 (emphasis added). The crux of this question is the meaning of the phrase, "implement or finance," as used in section 7278. In the absence of indications to the contrary, Congress is deemed to use words in their common, ordinary sense. *E.g.*, *Mallard v. United States District Court for Southern District of Iowa*, 490 U.S. 296, 300–01 (1989). "One measure of the common, ordinary meaning of words is a standard dictionary." B-303495, Jan. 4, 2005. The Merriam-Webster Dictionary defines the verb "implement" to mean, "carry out, accomplish; *especially:* to give

practical effect to and ensure of actual fulfillment by concrete measures." *Merriam-Webster's Collegiate Dictionary* 624 (11th ed. 2004) (emphasis in original).

We think DOE's preparatory activities fall squarely within this definition of "implement." In support of the title XVII loan guarantee program, DOE established and maintained a Web site, developed and published policies and "guidelines," issued a solicitation announcement inviting pre-applications, staffed and operated a program office, prepared a notice of proposed rulemaking, drafted and perfected a charter for the Credit Review Board, drafted regulations, reviewed pre-applications for completeness, and procured task order support services. DOE spent more than $503,000 on these preparatory activities. These activities constituted concrete measures designed to give practical effect to and ensure the actual fulfillment of the title XVII loan guarantee program (*i.e.*, awarding of loan guarantees) once appropriations were made available for that purpose. DOE acknowledged undertaking these actions in preparation for making loan guarantees. Hill Letter, at 3 (quoted above). To fund these activities, DOE used appropriations provided by Energy and Water Development Appropriation Acts for fiscal years 2006 and 2007.

DOE defends these activities by noting that none of them actually obligated the federal government to guarantee any loans. Hill Letter, at 3. DOE told us that it "understands the [section 7278] constraint to apply to 'implement[ing]' . . . those authorized loan guarantees by making them, . . . [not] conducting preparatory activities reasonably necessary for the Department to be in a position to make guarantees." *Id.* Preparatory activities, DOE reasons, are not barred by this provision because they do not "obligate the federal fisc to third parties pursuant to Title XVII." *Id.* DOE has confused implementation with financing. Merriam-Webster defines the verb "finance" to mean, "provide funds . . . for." *Merriam-Webster's Collegiate Dictionary*, at 469. *See also Black's Law Dictionary* 662 (8th ed. 2004) ("finance, vb. To raise or provide funds"). Thus, financing something is commonly understood to mean taking actions which provide funds for that something. This, DOE did not do. Section 7272, however, prohibits not just "financing" loan guarantees, but also "implementing" loan guarantee programs.

In the past, this Office has agreed in a number of cases that when Congress assigns new duties to an agency, the agency, under certain circumstances, may use an existing appropriation to defray the expenses of carrying out the new duties. *E.g.*, B-290011, Mar. 25, 2002; 46 Comp. Gen. 604 (1967); B-211306, June 6, 1983. However, that is not the case here. Section 7278 specifically prohibits the use of any funds made available to DOE by an Energy and Water Development Appropriations Act to implement or finance a loan guarantee program unless specific provision has been made for that program in an appropriations act. In other words, as a result of section 7278, no DOE appropriations under any Energy and Water Development Appropriations Act are legally available to fund any guaranteed loan program before the requisite appropriations act provisions are made. 42 U.S.C. § 7278. *Cf.*, *e.g.*, B-211306, June 6, 1983 (BLM could use an existing appropriation to pay expenses of a new program because the law "did not prohibit" use of the existing appropriation for those expenses). DOE's use of appropriations enacted by Energy and Water

Development Appropriations Acts for other purposes to support the title XVII loan guarantee program violated the prohibitions of section 7278.

In addition, DOE's actions violated two fundamental appropriations laws: the so-called purpose statute and the Antideficiency Act. Under the purpose statute (31 U.S.C. § 1301(a)), appropriations "shall be applied only to the objects for which the appropriations were made." *See* B-302973, Oct. 6, 2004. Where Congress has specifically prohibited a use of appropriated funds for a particular purpose, any obligation of funds for that purpose is in excess of the amount available for that purpose. *E.g.*, B-300192, Nov. 13, 2002; 60 Comp. Gen. 440 (1981). DOE expended fiscal year 2006 Energy and Water Development Appropriations Act funds to implement title XVII despite the fact that, under section 7278, no funds were available for this purpose. This violated the purpose statute. The Antideficiency Act (31 U.S.C. § 1341(a)) prohibits making or authorizing an expenditure or obligation that exceeds or is in advance of available budget authority. *E.g.*, B-303495, Jan 4, 2005. In fiscal year 2006, DOE expended fiscal year 2006 Energy and Water Development Appropriations Act funds to implement title XVII even though it had no funds available for this purpose, and did so again using fiscal year 2007 funds. Since DOE had no funds available to implement the title XVII prior to the 2007 Continuing Resolution, those uses of fiscal year 2006 and 2007 appropriations violated the Antideficiency Act. *Cf., e.g.*, B-300192, Nov. 13, 2002; B-302710, May 19, 2004.

CONCLUSIONS

This opinion addresses two questions. First, we conclude that EPACT section 1702(b)(2) confers upon DOE independent authority to make loan guarantees, notwithstanding the FCRA requirements. In view of this conclusion, we did not address the second part of your question concerning whether, in the alternative, section 1702(b)(2) constitutes new budget authority for the purposes of FCRA.

Second, we conclude that DOE engaged in activities to implement a loan guarantee program under EPACT title XVII during a period when DOE was affirmatively prohibited from implementing that title by 42 U.S.C. § 7278. These activities violated section 7278; the purpose statute, 31 U.S.C. § 1301(a); and the Antideficiency Act, 31 U.S.C. § 1341(a). DOE must report the violations of the Antideficiency Act to the Congress and the President, and submit a copy of that report to the Comptroller General under 31 U.S.C. § 1351, as amended.[15] B-304335, Mar. 8, 2005.

---

[15] Office of Management and Budget Circular No. A-11 provides guidance on the information to include in Antideficiency Act reports. Agencies must report violations found by GAO, even if they disagree with the finding. OMB advises agencies, "If the agency does not agree that a violation has occurred, the report to the President, Congress, and the Comptroller General will explain the agency's position." OMB Cir.
(continued...)

If you have any questions regarding this matter, please contact Susan A. Poling, Managing Associate General Counsel, at 202-512-2667, or Thomas H. Armstrong, Assistant General Counsel, at 202-512-8257.

Gary L. Kepplinger
General Counsel

(...continued)
No. A-11, *Preparation, Submission, and Execution of the Budget*, § 145.8 (June 2006).

HENRY A. WAXMAN, CALIFORNIA
EDWARD J. MARKEY, MASSACHUSETTS
RICK BOUCHER, VIRGINIA
EDOLPHUS TOWNS, NEW YORK
FRANK PALLONE, JR., NEW JERSEY
BART GORDON, TENNESSEE
BOBBY L. RUSH, ILLINOIS
ANNA G. ESHOO, CALIFORNIA
BART STUPAK, MICHIGAN
ELIOT L. ENGEL, NEW YORK
ALBERT R. WYNN, MARYLAND
GENE GREEN, TEXAS
DIANA DEGETTE, COLORADO
VICE CHAIRMAN
LOIS CAPPS, CALIFORNIA
MIKE DOYLE, PENNSYLVANIA
JANE HARMAN, CALIFORNIA
TOM ALLEN, MAINE
JAN SCHAKOWSKY, ILLINOIS
HILDA L. SOLIS, CALIFORNIA
CHARLES A. GONZALEZ, TEXAS
JAY INSLEE, WASHINGTON
TAMMY BALDWIN, WISCONSIN
MIKE ROSS, ARKANSAS
DARLENE HOOLEY, OREGON
ANTHONY D. WEINER, NEW YORK
JIM MATHESON, UTAH
G.K. BUTTERFIELD, NORTH CAROLINA
CHARLIE MELANCON, LOUISIANA
JOHN BARROW, GEORGIA
BARON P. HILL, INDIANA

DENNIS B. FITZGIBBONS, CHIEF OF STAFF
GREGG A. ROTHSCHILD, CHIEF COUNSEL

ONE HUNDRED TENTH CONGRESS

U.S. House of Representatives
Committee on Energy and Commerce
Washington, DC 20515–6115

JOHN D. DINGELL, MICHIGAN
CHAIRMAN

JOE BARTON, TEXAS
RANKING MEMBER
RALPH M. HALL, TEXAS
J. DENNIS HASTERT, ILLINOIS
FRED UPTON, MICHIGAN
CLIFF STEARNS, FLORIDA
NATHAN DEAL, GEORGIA
ED WHITFIELD, KENTUCKY
BARBARA CUBIN, WYOMING
JOHN SHIMKUS, ILLINOIS
HEATHER WILSON, NEW MEXICO
JOHN B. SHADEGG, ARIZONA
CHARLES W. "CHIP" PICKERING, MISSISSIPPI
VITO FOSSELLA, NEW YORK
STEVE BUYER, INDIANA
GEORGE RADANOVICH, CALIFORNIA
JOSEPH R. PITTS, PENNSYLVANIA
MARY BONO, CALIFORNIA
GREG WALDEN, OREGON
LEE TERRY, NEBRASKA
MIKE FERGUSON, NEW JERSEY
MIKE ROGERS, MICHIGAN
SUE MYRICK, NORTH CAROLINA
JOHN SULLIVAN, OKLAHOMA
TIM MURPHY, PENNSYLVANIA
MICHAEL C. BURGESS, TEXAS
MARSHA BLACKBURN, TENNESSEE

June 12, 2007

The Honorable Dennis R. Spurgeon
Acting Under Secretary
Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Mr. Spurgeon:

Thank you for appearing before the Subcommittee on Energy and Air Quality on Tuesday, April 24, 2007, at the hearing entitled "Implementation of EPACT 2005 Loan Guarantee Programs by the Department of Energy." We appreciate the time and effort you gave as a witness before the subcommittee.

Under the Rules of the Committee on Energy and Commerce, the hearing record remains open to permit Members to submit additional questions to the witnesses. Attached are questions directed to you from certain Members of the Committee. In preparing your answers to these questions, please address your response to the Member who has submitted the questions and include the text of the Member's question along with your response.

To facilitate the printing of the hearing record, your responses to these questions should be received no later than the close of business on July 17, 2007. Your written responses should be delivered to 2125 Rayburn House Office Building and faxed to (202) 225-2899 to the attention of Rachel Bleshman. An electronic version of your response should also be sent by e-mail to Ms. Bleshman, at rachel.bleshman@mail.house.gov. Please send your response in a single Word or WordPerfect formatted document.

Thank you for your prompt attention to this request. If you need additional information or have other questions, please contact Rachel Bleshman at (202) 225-2927.

Sincerely,

JOHN D. DINGELL
CHAIRMAN

Attachment

cc: The Honorable Joe Barton, Ranking Member
Committee on Energy and Commerce

The Honorable Rick Boucher, Chairman
Subcommittee on Energy and Air Quality

The Honorable J. Dennis Hastert, Ranking Member
Subcommittee on Energy and Air Quality

The Honorable Michael C. Burgess
Subcommittee on Energy and Air Quality

Department of Energy
Washington, DC 20585

July 10, 2007

The Honorable John D. Dingell
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

On April 24, 2007, Dennis R. Spurgeon, Acting Under Secretary, Office of Nuclear Energy, testified regarding "Implementation of EPACT 2005 Loan Guarantee Programs by the Department of Energy."

Enclosed is the answer to one question that was submitted by Representative Burgess for the hearing record.

If we can be of further assistance, please have your staff contact our Congressional Hearing Coordinator, Lillian Owen, at (202) 586-2031.

Sincerely,

Eric Nicoll
Acting Assistant Secretary
Congressional and Intergovernmental Affairs

Enclosure

Printed with soy ink on recycled paper

QUESTION FROM REPRESENTATIVE BURGESS

Loan Guarantee Program

Q1. I understand that nuclear and coal-based technologies may have to compete under the loan-guarantee program. Title XVII does not specify a competitive process among technologies. In fact, the language of Title XVII is intended to foster deployment of a broad suite of technologies to address climate change. What is the administration's rationale for the competition?

A1. All applications for loan guarantees compete for a limited pool of available loan volume limitation. This is beneficial to the taxpayers for several reasons. First, it sets an overall limit on liability to the taxpayer; without that limit, there could potentially be an unlimited amount of liability to the Federal balance sheet. Second, if the program is oversubscribed, it allows the Department to select the best projects for guarantees, again lowering risk to the taxpayer. In addition, the selection process will allow DOE to diversify the portfolio of guaranteed projects, and reduce the probability that market or technological risk will affect the entire portfolio simultaneously.

The August 2006 Guidelines and initial Solicitation (Solicitation No. DE-PS01-06LG00001), inviting the submission of Pre-Applications from entities seeking a loan guarantee under Title XVII, provided for a $2 billion loan volume limitation. DOE is seeking a broad portfolio of projects from various technologies within the $2 billion cap. A standardized application review process will be employed, and precisely how any authorized loan guarantee authority would be allocated across technologies ultimately would depend on the merits and benefits of particular

project proposals and their compliance with statutory and regulatory requirements.

In regards to nuclear projects, nuclear projects were excluded from the August 2006 solicitation. Sponsors of nuclear projects may be eligible to apply under future solicitations in accordance with the loan volume limitations authorized by the Congress.

HENRY A. WAXMAN, CALIFORNIA
EDWARD J. MARKEY, MASSACHUSETTS
RICK BOUCHER, VIRGINIA
EDOLPHUS TOWNS, NEW YORK
FRANK PALLONE, JR., NEW JERSEY
BART GORDON, TENNESSEE
BOBBY L. RUSH, ILLINOIS
ANNA G. ESHOO, CALIFORNIA
BART STUPAK, MICHIGAN
ELIOT L. ENGEL, NEW YORK
ALBERT R. WYNN, MARYLAND
GENE GREEN, TEXAS
DIANA DEGETTE, COLORADO
VICE CHAIRMAN
LOIS CAPPS, CALIFORNIA
MIKE DOYLE, PENNSYLVANIA
JANE HARMAN, CALIFORNIA
TOM ALLEN, MAINE
JAN SCHAKOWSKY, ILLINOIS
HILDA L. SOLIS, CALIFORNIA
CHARLES A. GONZALEZ, TEXAS
JAY INSLEE, WASHINGTON
TAMMY BALDWIN, WISCONSIN
MIKE ROSS, ARKANSAS
DARLENE HOOLEY, OREGON
ANTHONY D. WEINER, NEW YORK
JIM MATHESON, UTAH
G.K. BUTTERFIELD, NORTH CAROLINA
CHARLIE MELANCON, LOUISIANA
JOHN BARROW, GEORGIA
BARON P. HILL, INDIANA

DENNIS B. FITZGIBBONS, CHIEF OF STAFF
GREGG A. ROTHSCHILD, CHIEF COUNSEL

ONE HUNDRED TENTH CONGRESS

U.S. House of Representatives
Committee on Energy and Commerce
Washington, DC 20515–6115

JOHN D. DINGELL, MICHIGAN
CHAIRMAN

JOE BARTON, TEXAS
RANKING MEMBER
RALPH M. HALL, TEXAS
J. DENNIS HASTERT, ILLINOIS
FRED UPTON, MICHIGAN
CLIFF STEARNS, FLORIDA
NATHAN DEAL, GEORGIA
ED WHITFIELD, KENTUCKY
BARBARA CUBIN, WYOMING
JOHN SHIMKUS, ILLINOIS
HEATHER WILSON, NEW MEXICO
JOHN B. SHADEGG, ARIZONA
CHARLES W. "CHIP" PICKERING, MISSISSIPPI
VITO FOSSELLA, NEW YORK
STEVE BUYER, INDIANA
GEORGE RADANOVICH, CALIFORNIA
JOSEPH R. PITTS, PENNSYLVANIA
MARY BONO, CALIFORNIA
GREG WALDEN, OREGON
LEE TERRY, NEBRASKA
MIKE FERGUSON, NEW JERSEY
MIKE ROGERS, MICHIGAN
SUE MYRICK, NORTH CAROLINA
JOHN SULLIVAN, OKLAHOMA
TIM MURPHY, PENNSYLVANIA
MICHAEL C. BURGESS, TEXAS
MARSHA BLACKBURN, TENNESSEE

June 12, 2007

Mr. Chris Crane
President and Chief Nuclear Officer
Exelon Generation
4300 Winfield Rd
Warrenville, IL 60555

Dear Mr. Crane:

Thank you for appearing before the Subcommittee on Energy and Air Quality on Tuesday, April 24, 2007, at the hearing entitled "Implementation of EPACT 2005 Loan Guarantee Programs by the Department of Energy." We appreciate the time and effort you gave as a witness before the subcommittee.

Under the Rules of the Committee on Energy and Commerce, the hearing record remains open to permit Members to submit additional questions to the witnesses. Attached are questions directed to you from certain Members of the Committee. In preparing your answers to these questions, please address your response to the Member who has submitted the questions and include the text of the Member's question along with your response.

To facilitate the printing of the hearing record, your responses to these questions should be received no later than the close of business on June 26, 2007. Your written responses should be delivered to 2125 Rayburn House Office Building and faxed to (202) 225-2899 to the attention of Rachel Bleshman. An electronic version of your response should also be sent by e-mail to Ms. Bleshman, at rachel.bleshman@mail.house.gov. Please send your responses in a single Word or WordPerfect formatted document.

Thank you for your prompt attention to this request. If you need additional information or have other questions, please contact Rachel Bleshman at (202) 225-2927.

Sincerely,

JOHN D. DINGELL
CHAIRMAN

Attachment

cc: The Honorable Joe Barton, Ranking Member
Committee on Energy and Commerce

The Honorable Rick Boucher, Chairman
Subcommittee on Energy and Air Quality

The Honorable J. Dennis Hastert, Ranking Member
Subcommittee on Energy and Air Quality

The Honorable Michael C. Burgess
Subcommittee on Energy and Air Quality

Question from Mr. Burgess

Chairman Boucher seemed to suggest during his questioning that the Committee may be revisiting the loan guarantee program and possibly refocusing the program on transportation fuels. As the country's largest nuclear operator, are you concerned that nuclear could end up without any loan guarantees? How might this impact your, or another company's ability to get a new nuclear facility financed, constructed and online?

Response from Christopher Crane
Senior Vice President, Exelon Corporation
President and Chief Nuclear Officer, Exelon Nuclear

The energy loan guarantee program authorized by Title XVII of the 2005 Energy Policy Act is designed to accelerate commercial deployment of technologies that (1) avoid, reduce or sequester air pollutants or greenhouse gases, and (2) employ new or significantly improved technologies.

Certain advanced technologies to produce transportation fuels – e.g., coal-to-liquids – may meet these criteria and should be considered for support under the loan guarantee program. Transportation fuels represent a major energy policy challenge, given that the United States now imports approximately 65 percent of its oil.

Building the new electric generation capacity necessary to sustain economic growth, preserve reliability and protect our environment is at least as large a challenge, however. For this reason, the energy loan guarantee program must also support commercial deployment of clean, emission-free technologies like nuclear power.

It will be a formidable challenge to finance the advanced electric generating technologies needed to meet growing U.S. demand for electricity over the next 15 to 20 years. Consensus estimates suggest that the electric power industry, over the next 15 years, must invest between $750 billion and $1 trillion in new generating capacity, new transmission and distribution infrastructure and environmental controls.

Addressing this challenge successfully will require innovative approaches to financing, combining all the financing capabilities and tools available to the private sector, the federal government and state governments. The loan guarantee program authorized by Title XVII of the Energy Policy Act of 2005 is one of those tools and is essential to support the financing of new nuclear plants.

A properly structured loan guarantee program would allow companies to employ project financing on a non-recourse basis. The ability to use non-recourse project finance structures offsets the most significant financing challenge facing new baseload power plant construction – the cost of baseload projects relative to the size, market value and financing capability of companies that will build them. New nuclear projects are $5-6 billion undertakings. Although $5-6 billion projects are not unique in the energy business, such projects are typically built by major oil companies with market values 10-15 times higher than the largest electric companies. Project financing, supported by loan guarantees, also allows a more efficient capital structure, which reduces the weighted average cost of capital and thus provides a substantial consumer benefit in the form of lower electricity prices. Loan guarantees also mitigate the impact on the balance sheet of these large capital projects which would otherwise place stress on credit quality and bond ratings.

O